Participant Handbook

ESSCI
Skilling India in Electronics

Sector
Electronics

Sub- Sector
Industrial Automation

Occupation
Manufacturing

Reference ID: **ELE/Q7306, Version 2.0**
NSQF Level 3

Electrical Assembly Operator – Control Panel

> " Skilling is building a better India.
> If we have to move India towards
> development then Skill Development
> should be our mission. "

Shri Narendra Modi
Prime Minister of India

Certificate

COMPLIANCE TO
QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

ELECTRONICS SECTOR SKILLS COUNCIL OF INDIA

for

SKILLING CONTENT : PARTICIPANT HANDBOOK

Complying to National Occupational Standards of

Job Role/Qualification Pack **"Electrical Assembly Operator – Control Panel"**

QP No. **"ELE/Q7306, NSQF Level 3"**

Date of Issuance: 24.02.2022
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*Valid up to the next review date of the Qualification Pack or the
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Authorized Signatory
Electronics Sector Skills Council of India

Acknowledgments

ABOUT THIS BOOK

This participant handbook has been designed to serve as a guide for participants who aim to obtain the required knowledge and skills to undertake various activities as an Electrical Assembly Operator. Its content has been aligned with the latest Qualification Pack (QP) prepared for the job role. With a qualified trainer's guidance, the participants will be equipped with the following for working efficiently in the job role:

- Knowledge and Understanding: The relevant electrical assembly knowledge and understanding to perform the assembling tasks.
- Performance Criteria: The essential skills through hands-on training to perform the electrical assembling operations to the applicable quality standards.
- Professional Skills: The Ability to make appropriate assembling decisions about the electrical assembly work.

The handbook details the relevant activities to be carried out by an Electrical Assembly Operator. After studying this handbook, job holders will be adequately skilled to carry out their duties efficiently according to the applicable quality standards, with minimum supervision.

The handbook has been divided into an appropriate number of units and sub-units based on the content of the relevant QP. We hope it will facilitate easy and structured learning for the participants. We sincerely hope that participants will obtain enhanced knowledge and skills after studying this handbook and make career progress in the relevant and senior job roles.

The Participant Handbook is designed based on the National Skill Qualification Framework (NSQF) aligned Qualification Pack (QP) and it comprises of the following National Occupation Standards (NOS)/ topics:

- ELE/N7307 - Assemble Control Panel
- ELE/N9972 – Communicate and coordinate effectively with others
- ELE/N1003 – Work effectively, sustainably and safely
- ELE/N1002 – Apply Health and Safety Practices at the Workplace

Symbols Used

Key Learning Outcomes	Exercise	Steps	Tips	Notes	Unit Objectives

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Unit 1.4 Roles and responsibilities of an Electrical Assembly Operator – Control Panel

Skilling India in Electronics

Key Learning Outcomes 💡

By the end of this module, participants will be able to:

    1. State the role and responsibilities of an Electrical Assembly Operator.

Unit 1.1 Size and scope of the electronics industry and its various sub-sectors

Unit Objectives ⊚

By the end of this unit, participants will be able to:

1. Describe the size and scope of the Electronics industry.
2. Identify the sub-sectors of the Electronics industry.

1.1.1 Describe the size and scope of the electronics industry and its various sub- sectors

The Indian Electronics System Design & Manufacturing (ESDM) industry is one of the vital sectors of the Indian economy. The country has witnessed a substantial spike in demand for electronic products in the last few years. Today, India is positioned as the second-largest mobile phone manufacturer globally, with a surging internet penetration rate.

The ESDM sector is playing a vital role in the Indian government's goal of generating US$ 1 trillion of economic value from the digital economy by 2025. With several government initiatives aiming to boost domestic manufacturing, India is witnessing increased production and assembly activities across products, such as consumer electronics and mobile phones.

Market Size

- The Indian electronics manufacturing industry is projected to reach US$ 520 billion by 2025.
- In FY22 (until October 2021), imports of electronics goods stood at US$ 28.59 billion, whereas exports stood at US$ 7.89 billion.
- The demand for electronic products is expected to rise to US$ 400 billion by 2025 from US$ 33 billion in Fy20.
- The electronics market has witnessed a growth in demand, with market size increasing from US$ 145 billion in FY16 to US$ 215 billion in FY19—the market witnessed a growth of 14% CAGR from 2016-19.
- India's exports of electronic goods were valued at US$ 11.7 billion in FY21.
- Smartphone shipments in India increased by ~82% YoY to reach 33.0 million units in the second quarter of 2021.
- The Electronics System Design & Manufacturing (ESDM) is broadly segregated into—electronics system and electronics design.

- The electronics system market is expected to witness 2.3x demand of its current size (FY19) to reach US$ 160 billion by FY25.

- Electronics design segment, growing at 20.1%, was 22% of the ESDM market size in FY19; it is anticipated to be 27% of the ESDM market size in FY25.

- India's consumer electronics and appliances industry is expected to become the 5th largest globally by 2025.

- According to the Department for Promotion of Industry and Internal Trade, from April 2000 to June 2021, Foreign Direct Investment (FDI) equity inflows stood at US$ 3,176.29 million.

1.1.2 Sub-Sectors of the Electronics System Design & Manufacturing (ESDM) Industry
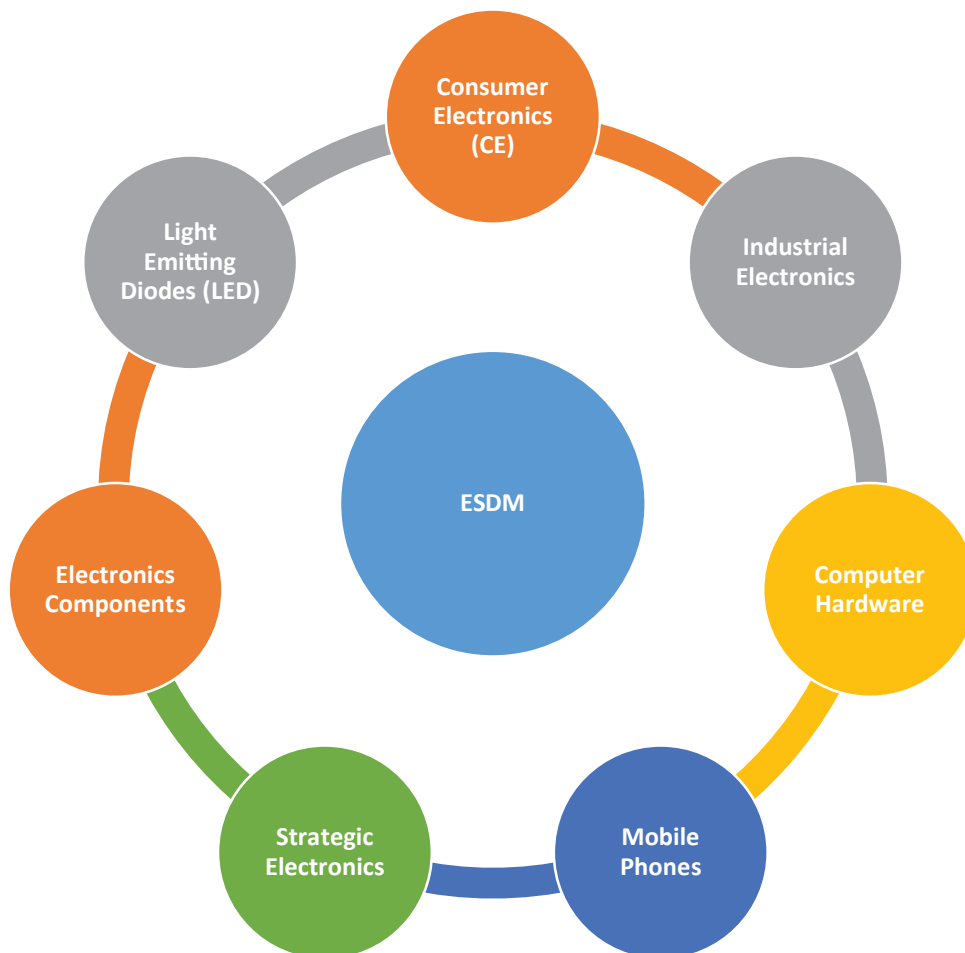
Fig. 1.1.1 Sub-sectors of the Electronics System Design & Manufacturing (ESDM) Industry

Notes

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Unit 1.2 Basics of electronics and related concepts

Unit Objectives 🎯

By the end of this unit, participants will be able to:

1. Fundamental knowledge of Electronics

1.2.1 Define the basics of electronics and related concepts
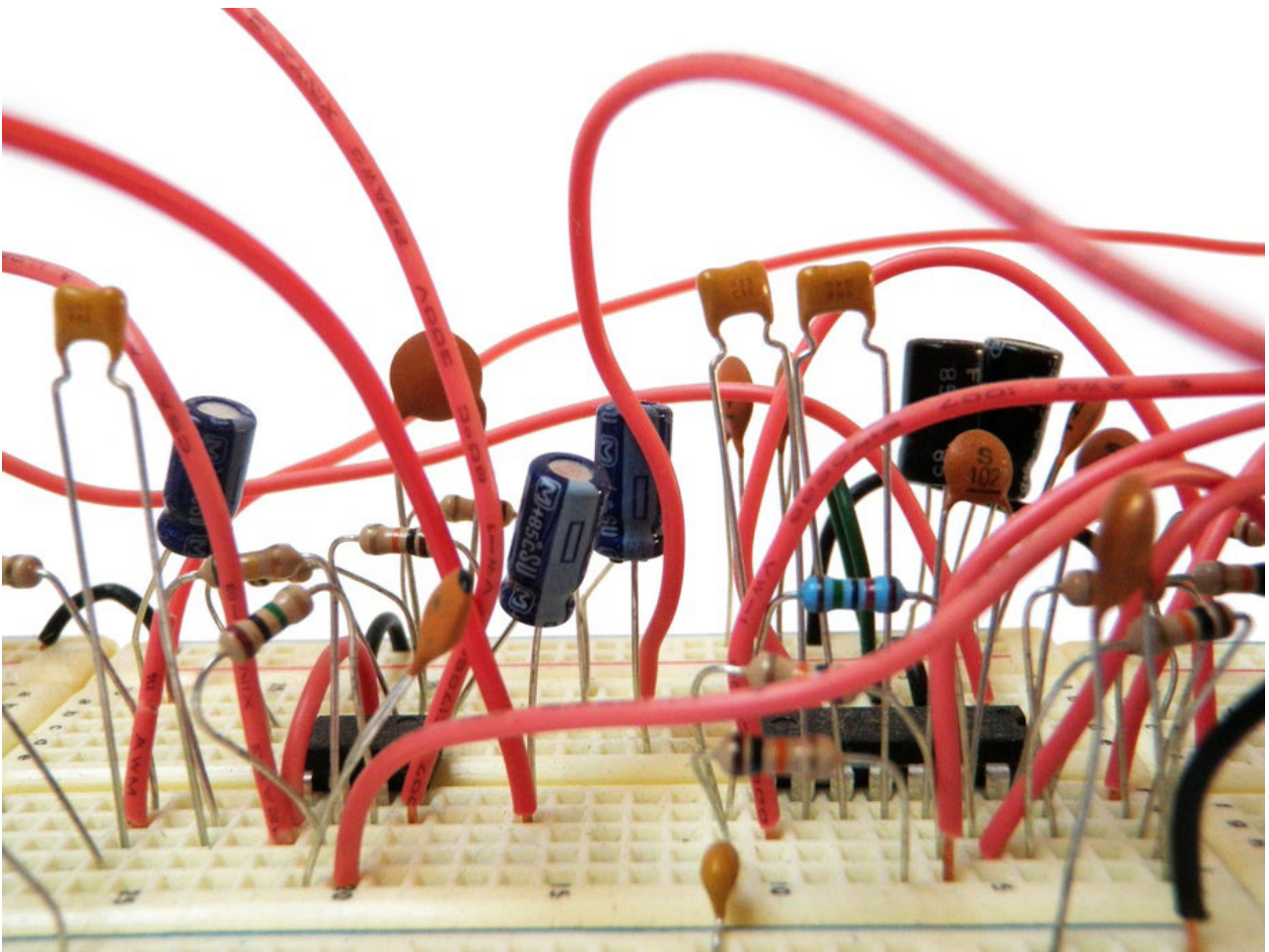
Figure 1.2.1 Electrical Components

Getting started with basic electronics is easier than you might think This is a quick overview into practical electronics and it is not my goal to delve deeply into the science of electrical engineering.

Electricity
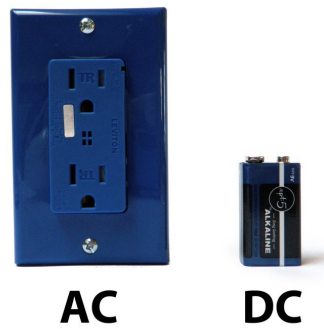
Figure 1.2.1(A) Electrical Signals

- There are two types of electrical signals , those being alternating current (AC), and direct current (DC).
- With alternating current, the direction electricity flows throughout the circuit is constantly reversing. You may even say that it is alternating direction. The rate of reversal is measured in Hertz, which is the number of reversals per second. So, when they say that the US power supply is 60 Hz, what they mean is that it is reversing 120 times per second (twice per cycle).
- With Direct Current, electricity flows in one direction between power and ground. In this arrangement there is always a positive source of voltage and ground (0V) source of voltage. You can test this by reading a battery with a multimeter.
- Speaking of voltage, electricity is typically defined as having a voltage and a current rating. Voltage is obviously rated in Volts and current is rated in Amps. For instance, a brand new 9V battery would have a voltage of 9V and a current of around 500mA (500 milliamps).
- Electricity can also be defined in terms of resistance and watts. We will talk a little bit about resistance in the next step, but I am not going to be going over Watts in depth. As you delve deeper into electronics you will encounter components with Watt ratings. It is important to never exceed the Wattage rating of a component, but fortunately that Wattage of your DC power supply can easily be calculated by multiplying the voltage and current of your power source.

Circuits

CLOSED CIRCUIT   **OPEN CIRCUIT**
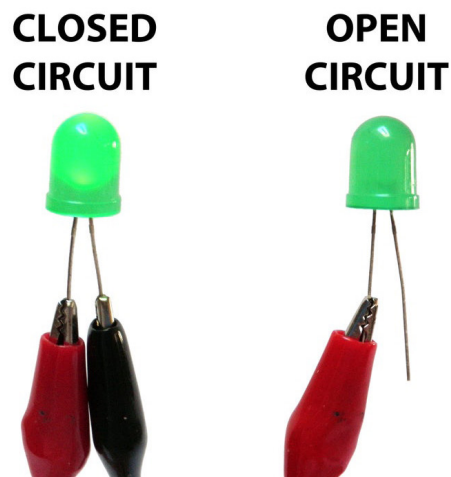
Figure 1.2.1 (B) Closed & Open Circuit

- A circuit is a complete and closed path through which electric current can flow.
- A closed circuit would allow the flow of electricity between power and ground.
- An open circuit would break the flow of electricity between power and ground.
- Anything that is part of this closed system and that allows electricity to flow between power and ground is considered to be part of the circuit.

Resistance
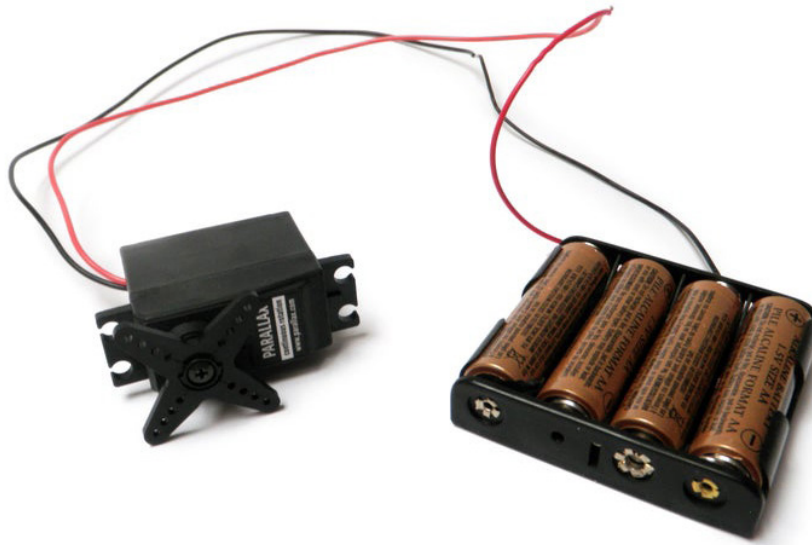
Figure 1.2.1 (C) Resistance

- For instance, in the circuit above, the motor that electricity is flowing through is adding resistance to the flow of electricity. Thus, all of the electricity passing through the circuit is being put to use.
- In other words, there needs to be something wired between positive and ground that adds resistance to the flow of electricity and uses it up. If positive voltage is connected directly to ground and does not first pass through something that adds resistance, like a motor, this will result in a short circuit. This means that the positive voltage is connected directly to ground.
- **It is very important to prevent short circuits by making sure that the positive voltage is never wired directly to ground.**

Series vs. Parallel
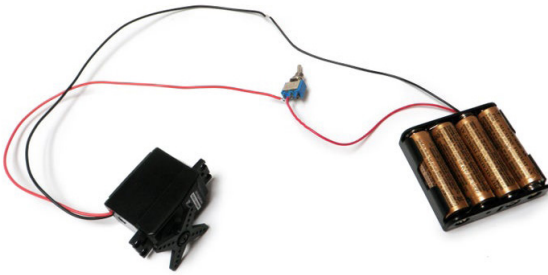
Figure 1.2.1 (C) 1 Series Wiring
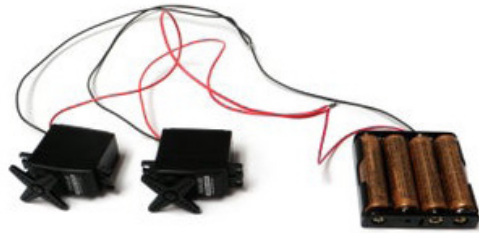
Figure 1.2.1 (C) 2 Parallel Wiring
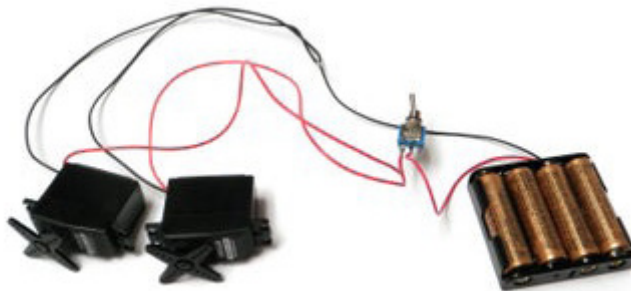
Figure 1.2.1 (C) 3 Parallel motor & Series Wiring

- There are two different ways in which you can wire things together called series and parallel.
- When things are wired in series, things are wired one after another, such that electricity has to pass through one thing, then the next thing, then the next, and so on.
- In the first example, the motor, switch and battery are all wired in series because the only path for electricity to flow is from one, to the next, and to the next.
- When things are wired in parallel, they are wired side by side, such that electricity passes through all of them at the same time, from one common point to another common point
- In the next example, the motors are wired in parallel because the electricity passes through both motors from one common point to another common point.
- In the final example the motors are wired in parallel, but the pair of parallel motors, switch and batteries are all wired in series. So, the current is split between the motors in a parallel fashion, but still must pass in series from one part of the circuit to the next.

Basic Components
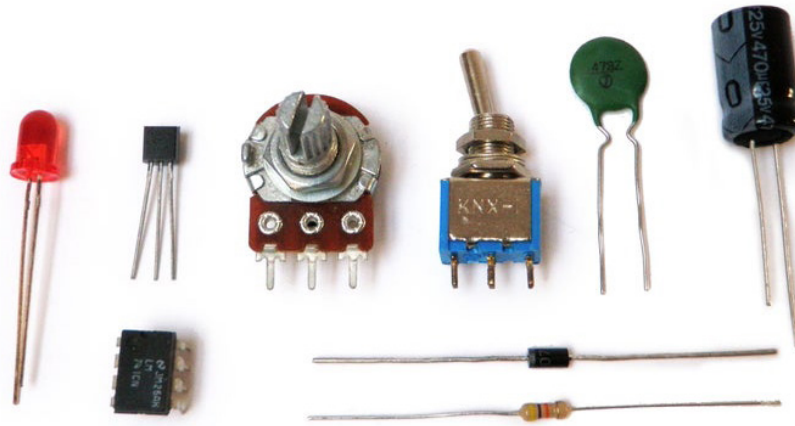
Figure 1.2.1 (D) Basic components

In order to build circuits, you will need to become familiar with a few basic components. These components may seem simple, but are the bread and butter of most electronics projects. Thus, by learning about these few basic parts, you will be able to go a long way.

Resistors

Figure 1.2.1 (E) Resistors

- As the name implies, resistors add resistance to the circuit and reduces the flow of electrical current. It is represented in a circuit diagram as a pointy squiggle with a value next to it.
- The different markings on the resistor represent different values of resistance. These values are measured in ohms.
- Resistors also come with different wattage ratings. For most low-voltage DC circuits, 1/4 watt resistors should be suitable.
- Values are read from left to right towards the (typically) gold band. The first two colors represent the resistor value, the third represents the multiplier, and the fourth (the gold band) represents the tolerance or precision of the component. You can tell the value of each color by looking at a resistor color value chart.
- Anyhow... a resistor with the markings brown, black, orange, gold will translate as follows: 1 (brown) 0 (black) x 1,000 = 10,000 with a tolerance of +/- 5%
- Any resistor of over 1000 ohms is typically shorted using the letter K. For instance, 1,000 would be 1K; 3,900, would translate to 3.9K; and 470,000 ohms would become 470K.
- Values of ohms over a million are represented using the letter M. In this case, 1,000,000 ohms would become 1M.

Capacitors
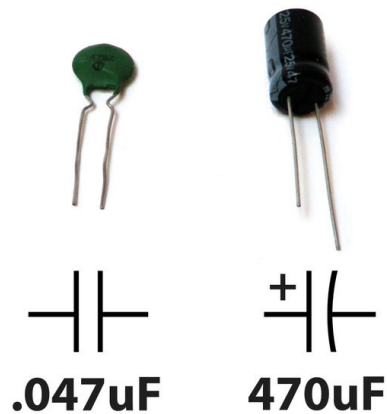
Figure 1.2.1 (F) Capacitors

- A capacitor is a component that stores electricity and then discharges it into the circuit when there is a drop in electricity.
- Capacitors are measured in Farads. The values that you will typically encounter in most capacitors are measured in picofarad (pF), nanofarad (nF), and microfarad (uF).

- The most commonly encountered types of capacitors are ceramic disc capacitors that look like tiny M&Ms with two wires sticking out of them and electrolytic capacitors that look more like small cylindrical tubes with two wires coming out the bottom (or sometimes each end).
- Electrolytic capacitors are typically polarized. This means that one leg needs to be connected to the ground side of the circuit and the other leg must be connected to power. If it is connected backwards, it won't work correctly.
- Electrolytic capacitors have the value written on them, typically represented in uF. They also mark the leg which connects to ground with a minus symbol (-). This capacitor is represented in a schematic as a side-by-side straight and curved line. The straight line represents the end which connects to power and the curve connected to ground.

Diodes
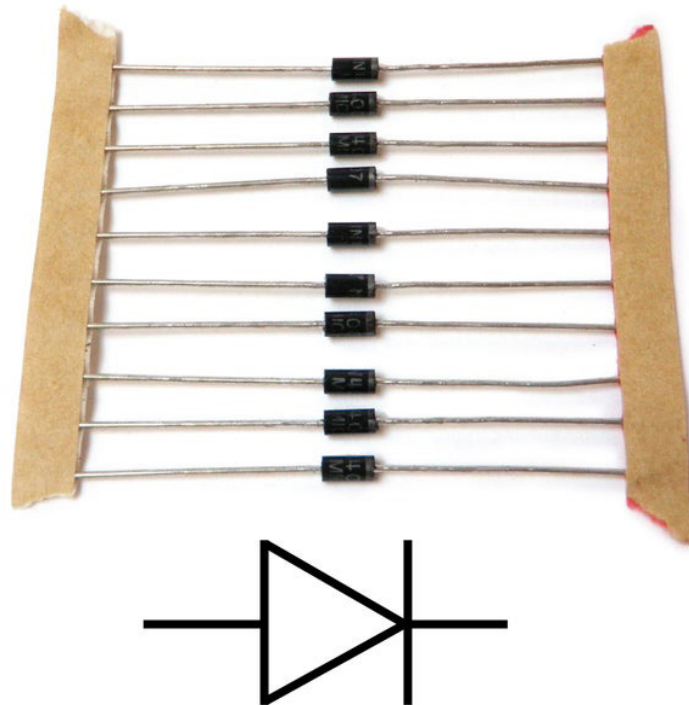
Figure 1.2.1 (G) Diodes

- Diodes are components which are polarized. They only allow electrical current to pass through them in one direction. This is useful in that it can be placed in a circuit to prevent electricity from flowing in the wrong direction.
- Another thing to keep in mind is that it requires energy to pass through a diode and this results in a drop of voltage. This is typically a loss of about 0.7V. This is important to keep in mind for later when we talk about a special form of diodes called LEDs.
- The ring found on one end of the diode indicates the side of the diode which connects to ground. This is the cathode. It then follows that the other side connects to power. This side is the anode.

Transistors
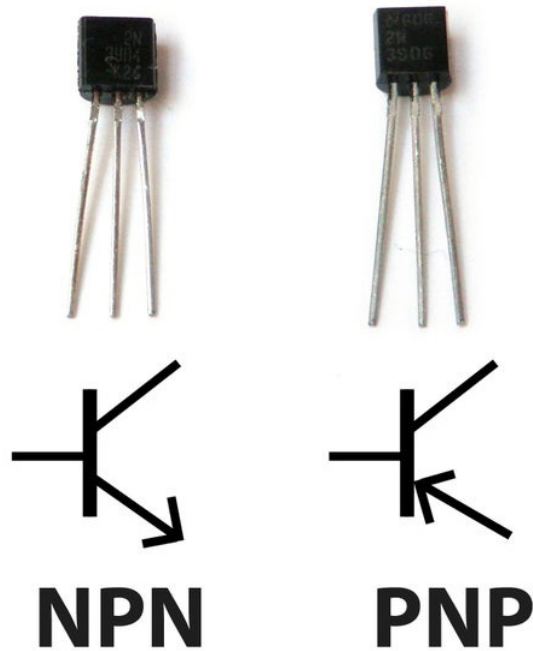
Figure 1.2.1 (H) Transistors

- A transistor takes in a small electrical current at its base pin and amplifies it such that a much larger current can pass between its collector and emitter pins.
- The amount of current that passes between these two pins is proportional to the voltage being applied at the base pin.
- There are two basic types of transistors, which are NPN and PNP. These transistors have opposite polarity between collector and emitter.
- NPN transistors allow electricity to pass from the collector pin to the emitter pin. They are represented in a schematic with a line for a base, a diagonal line connecting to the base, and a diagonal arrow pointing away from the base.
- PNP transistors allow electricity to pass from the emitter pin to the collector pin. They are represented in a schematic with a line for a base, a diagonal line connecting to the base, and a diagonal arrow pointing towards the base.

Integrated Circuits
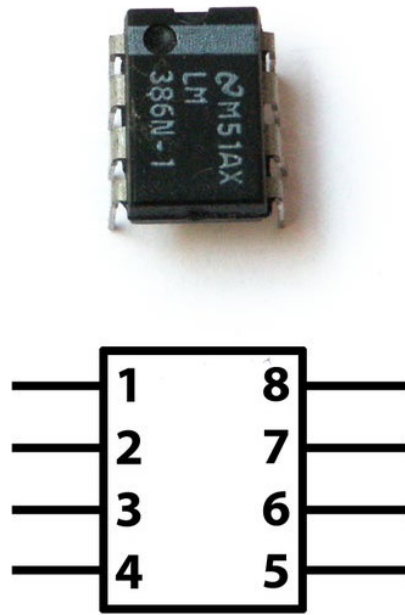
Figure 1.2.1 (I) Integrated circuit

- An integrated circuit is an entire specialized circuit that has been miniaturized and fit onto one small chip with each leg of the chip connecting to a point within the circuit.
- These miniaturized circuits typically consist of components such as transistors, resistors, and diodes.

Potentiometers
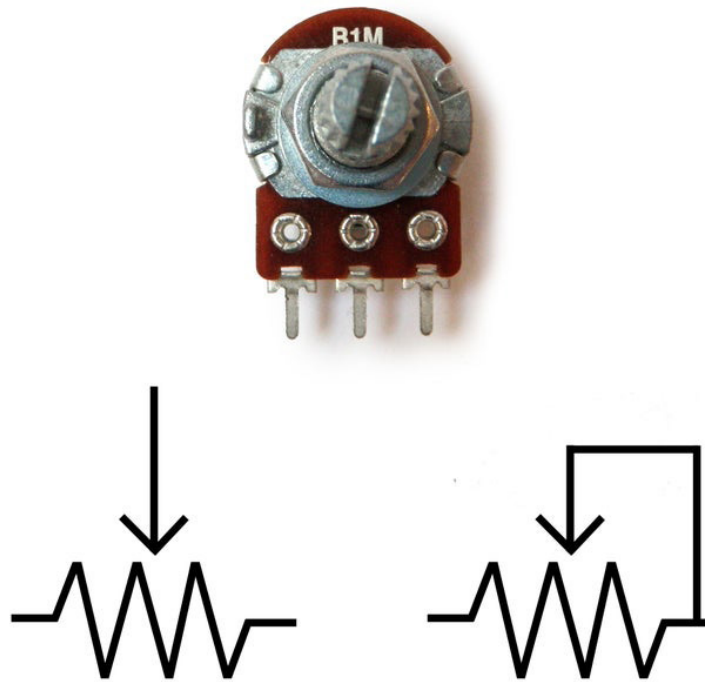
Figure 1.2.1 (J) Potentiometers

- Potentiometers are variable resistors. In plain English, they have some sort of knob or slider that you turn or push to change resistance in a circuit.

LEDs
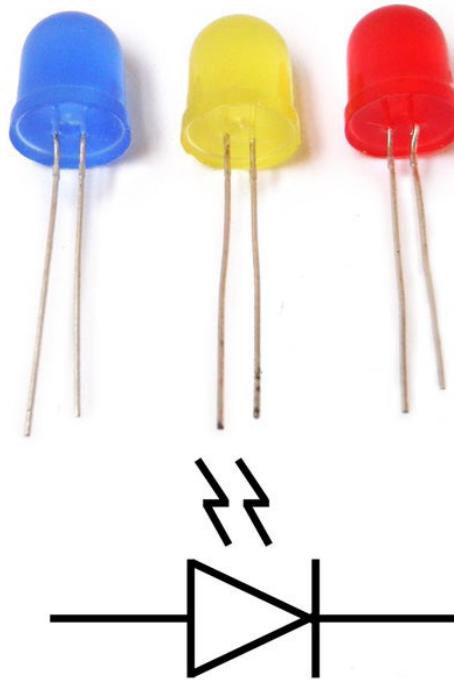
Figure 1.2.1 (K) Led

- LED stands for light emitting diode. It is basically a special type of diode that lights up when electricity passes through it.
- Like all diodes, the LED is polarized and electricity is only intended to pass through in one direction.

Switches
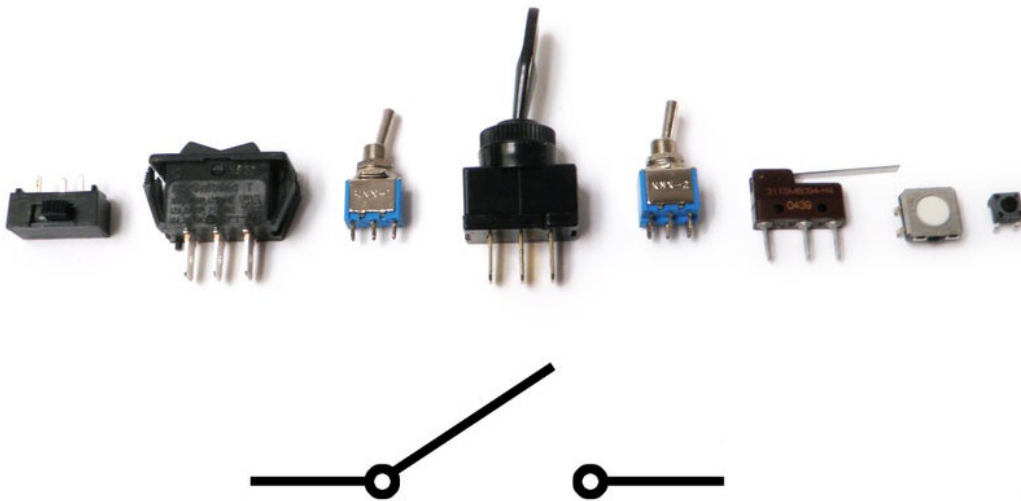
Figure 1.2.1 (L) Switches

- A switch is basically a mechanical device that creates a break in a circuit.
- When you activate the switch, it opens or closes the circuit. This is dependent on the type of switch it is.
- Normally open (N.O.) switches close the circuit when activated.
- Normally closed (N.C.) switches open the circuit when activated.
- As switches get more complex they can both open one connection and close another when activated. This type of switch is a single-pole double-throw switch (SPDT).

Batteries

Figure 1.2.1 (M) Battery

- A battery is a container which converts chemical energy into electricity.
- By placing batteries in series you are adding the voltage of each consecutive battery, but the current stays the same. For instance, a AA-battery is 1.5V. If you put 3 in series, it would add up to 4.5V. If you were to add a fourth in series, it would then become 6V.
- By placing batteries in parallel the voltage remains the same, but the amount of current available doubles. This is done much less frequently than placing batteries in series, and is usually only necessary when the circuit requires more current than a single series of batteries can offer.

Wire
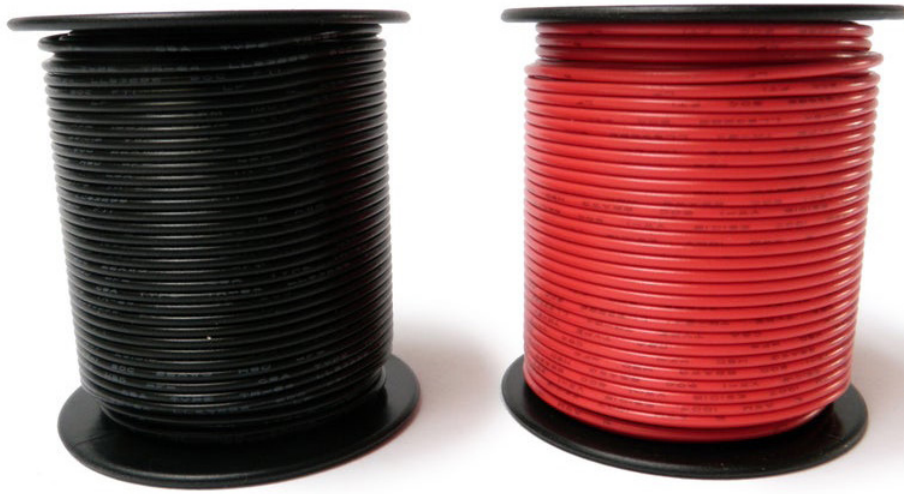
Figure 1.2.1 (N) Wires

- Wires are nice because they allow you to connect things without adding virtually no resistance to the circuit.
- This allows you to be flexible as to where you place parts because you can connect them together later with wire.
- It also allows you to connect a part to multiple other parts.

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Unit 1.3 Opportunities for Electrical Assembly Operator – Control Panel in the industry

Unit Objectives ◎

By the end of this unit, participants will be able to:

1. Scope of Electrical Assembly Operator in electronic industry

1.3.1 Career Pathways of Electrical Assembly Operator

There are different career pathways that an Electrical Assembly Operator can take. Following are some of them:

- Lateral movement in the electronic industry or other related sectors where electrical appliances are used. The individual can work as an employee with such a company.

- With appropriate knowledge and adequate years of experience, the individual may also become a senior operator.

- Later, the individual may become a Supervisor and even progress to a manager's level.

- The person can even work as an entrepreneur and start own service centre.

- Similarly, with strong technical expertise, one can even become a trainer at a training institute or start own training centre.

1.3.2 Personal Attributes of an Electrical Assembly Operator

An Electrical Assembly Operator needs to have some essential personal attributes for performing various activities effectively. The individual should have attention to detail and problem-solving skills to quickly identify any malfunctioning or problems with electrical components for their timely resolution. The person should have logical thinking to analyze a situation/problem logically to find an appropriate solution and appropriate technical expertise to perform repair and maintenance activities efficiently. Good decision-making skills are also important for the individual to ensure the correct decision is taken concerning the corrective measures to be taken for electric repair.

The person usually caters to clients who experience issues with their electric appliances. For this reason, the individual needs to have good client-dealing skills and the ability to work as per their requirement. It also includes effective communication skills, i.e. talking courteously and listening attentively.

In a dynamic technological environment, it is also vital for the individual to stay updated with the latest developments in the field of work by reading the relevant literature and staying in contact with relevant persons.

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Unit 1.4 Roles and responsibilities of an Electrical Assembly Operator – Control Panel

Unit Objectives ◎

By the end of this unit, participants will be able to:

1. Understand the duties of Electrical Assembly Operator

1.4.1 Electronic Assembler Job Description

In this role you will be required to read and interpret instructions, assemble parts and use tools to fit electronic components.

- An Electronic Assembler is tasked to assemble electronic components, subassemblies, products.
- Use hand tools such as crimps, stakes, screws, bolts, rivets, welds, solders, cements, press fits, or similar hand tools.
- Mount assembled components, such as transformers, resistors, transistors, capacitors, integrated circuits and sockets on chassis panels.
- Connect component wires to circuits and connect wires between individual component leads.
- Install finished assemblies or subassemblies in cases and cabinets.
- Tend to machines.
- Adjust or trim materials from components.

1.4.2 Electronic Assembler Duties

Duties of an electronic assembler may include:

- Material assembly.

- Read and interpret drawings, diagrams, blueprints, specifications, work orders, or reports.

- Clean parts thoroughly.

- Review work activities with supervises.

- Inspect wiring installations, assemblies, and circuits.

- Assemble electrical or electronic systems or support structures and install components, units, subassemblies, wiring, or assembly casings, using rivets, bolts, soldering or micro-welding equipment.

- Pack finished products for shipment.

- Tag components.

- Adjust or repair electrical equipment.

- Correct defects.

- Test product to ensure conformance to specifications.

- Build products such as electric motors, computers, electronic control devices, and sensing equipment.

- Perform manual assembly during the small-scale production of electronic devices used in avionic systems, military systems, and medical equipment.

- Fabricate or modify parts, using shop equipment.

- Verify dimensions and clearances of parts to ensure conformance to blueprint specifications, using instruments, such as micrometres, callipers, and height gauges.

- Populate or modify/replace components on printed circuit board assemblies.

- Test functional performance.

1.4.3. In addition, the individual has the following responsibilities:

- Communicating effectively at the workplace.

- Working effectively.

- Maintaining and enhancing professional competence.

- Working in a disciplined and ethical manner.

- Upholding social diversity in the workplace.

- Dealing with workplace hazards.

- Following fire safety practices.

- Following emergencies, rescue and first-aid procedures.

- Following effective waste management/recycling practices.

1.4.4 Discuss organisational policies on incentives, delivery standards, personnel management and public relations (PR).

The organizational policies on incentives, personnel management, and reporting structure depend on the organization the individual joins. These vary across organizations.

For example, a public sector company may offer different kinds of incentives for work performance as compared to a private company. The same is the case with the reporting structure.

Personnel management policies also tend to differ from organization to organization. The individual should conduct proper research before interviewing for a job at a particular company to ensure that they are satisfied with the company policies on remuneration, human resource management, career progression, etc.

Electrical equipment industry facing skilled manpower problem

- It said that the electrical equipment industry is facing a major problem in getting skilled and employable manpower which is technically competent, equipped with skills and ready to be deployed.

- "The industry is facing a looming skill gap, which is widening every year. Due to lack of skilled manpower, electrical equipment industry is suffering as it is affecting critical functions like R&D, consultancy, design and detailed engineering work," it added.

- The technical education system in the country does not promote innovative thinking, it said adding training being provided in the ITIs is out dated and the students are not able to meet the aspirations of the industry.

- "Even the qualified supervisors and engineers are not available. Those who are qualified are not well trained to meet the technical needs of the industry. Because of the above factors the labour productivity in India is far less than the labour productivity in China and Korea," the statement said.

- It said that this is one of the important reasons for making the industry non-competitive and is also affecting the timely completion of the projects.

- The ministry said that there is an urgent need for training the work force for all the segments of the industry and making changes in the curriculum of the polytechnics and engineering colleges.

EXERCISE ✎

Short Questions

1. Explain the importance of the electronics industry.

2. Write about purchase executive.

3. Explain briefly the problems faced by electronics industry.

4. Write short notes on followings:
   - Wire
   - Switches
   - Potentiometers
   - Integrated Circuits
   - Transistors
   - Diodes
   - Capacitors
   - Electrical Signals

Long Questions

1. Describe the size and scope of the electronics industry and its various sub- sectors.

2. Discuss the various opportunities for an Electrical Assembly Operator in the electronics industry.

3. Define the basics of electronics and related concepts.

4. Discuss the role and responsibilities of an Electrical Assembly Operator.

5. Discuss organisational policies on incentives, delivery standards, personnel management and public relations (PR).

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2. Assemble Control Panel

Unit 2.1   Electrical Components and its usage
Unit 2.2   Installation of Electrical Panel
Unit 2.3   Safety and Security

Key Learning Outcomes 💡

By the end of this module, participants will be able to:

- Describe basic fundamentals of electricity and circuits.
- Illustrate current and voltage distribution in series and parallel circuits.
- Describe organisational process or procedure for assembly and wiring.
- Discuss the information derived from the engineering drawings, wiring diagrams, component symbols, blueprints, job sheet etc.
- List the tools, measuring instruments, equipment and electrical components required during assembling work.
- Describe functioning of electrical panel and control circuits.
- Describe functioning and use of various electrical components such as MCB's, relay, contractor, fuse etc. used in machine, control panels and electrical circuits.
- Describe the selection criteria of tools, measuring instruments, equipment and electrical components required during assembling work.
- Discuss the organisational process of collecting and arranging the tools, measuring instruments, equipment and electrical components from the store.
- Summarise the steps to be performed for checking the tools, measuring instruments, equipment and electrical components before use.
- Discuss the necessary precautions to avoid any hazard and accident during assembling activities.
- List the steps to be performed for preparing the foundation for installing the equipment.
- Describe the standards and procedure for installation of electrical panels.
- Explain the safety mechanism, do's and don'ts of manufacturing process as per SOP.
- List the steps to be performed for installing the electrical panel, control circuits etc. in an electrical machine.
- Explain the process of escalating the problems faced during installation and assembly activities to the supervisor or concerned authority.
- Describe post-assembling processes like cleaning, quality check etc.
- Explain methods of inspecting the quality of assembled control panels.
- List the commonly occurring defects and their remedies in the electrical panels.
- Elaborate the impact of non-conformities on final assembly and their causes to quality assurance standards.
- Describe various checks that need to be made to ensure that equipment is safe and ready to use.

Unit 2.1 Electrical Components and its usage

Unit Objectives ◎

By the end of this unit, participants will be able to:

- Explain the basic principles governing the Alternating Current, Direct Current (DC) and electronic circuits.
- Explain the use of various types of electronic components such as a resistor, capacitors, coil, diode, transistor, integrated circuit (IC) etc.
- Explain the importance of electric safety.

2.1.1 Electric Current

The flow of electricity in an electronic circuit, as well as the amount of electricity flowing through it, is referred to as electric current. It is measured in amperes (A). The higher the ampere value, the more electricity flows across the circuit. Imagining electricity as the flow of water in a river makes it simple to understand. Particles called electrons come together, and the number of electrons flowing each second is the current.

Voltage is a word that is used in electrical circuits almost as frequently as current. Volts are the unit of measurement for voltage (V). Voltage is connected to the passage of electrons in a circuit, just like the current. The flow of electrons is referred to as current, and the amount of force driving the electrons is referred to as voltage.

The two types of electric current flow are:

Direct Current: The one direction flow of an electric charge is known as direct current. Direct current can flow via conductors like wires, but it can also flow through semiconductors and even a vacuum.
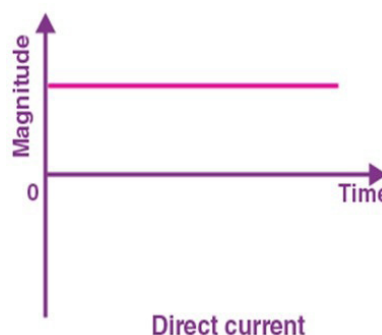
Fig. 2.1.1. Direct Current

Alternating Current

An electrical current that repeatedly changes or reverses its direction is called an alternating current. AC changes its magnitude and polarity at regular intervals of time.

2.1.2 Electric Circuit

A channel through which electric current flows is known as an electric circuit. An electric circuit can also be a loop if it is a closed path (both ends are connected). Because of the closed circuit, electric current may flow freely. An open circuit is one in which the passage of electrons is interrupted because the circuit is broken. An open circuit does not allow an electric current to flow.

Closed Circuit   Open Circuit
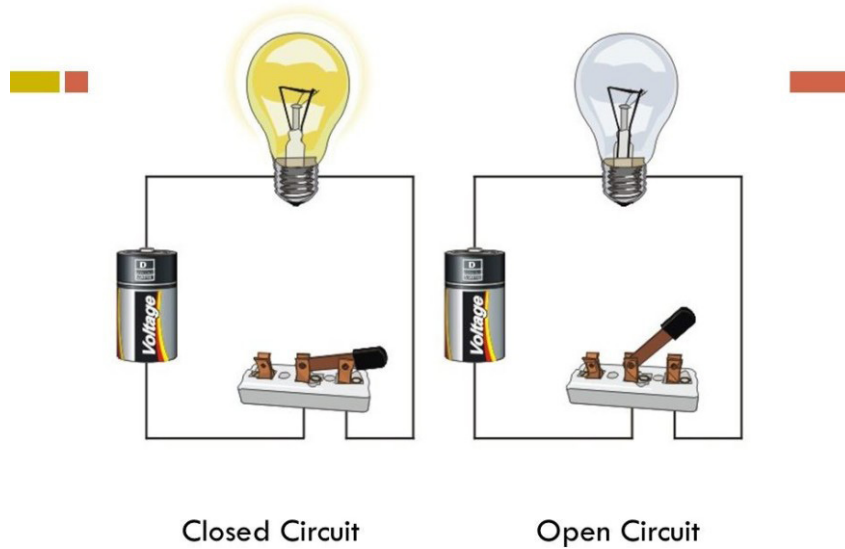
Fig. 2.1.3. Electric Circuit

Parts of Electric Circuit
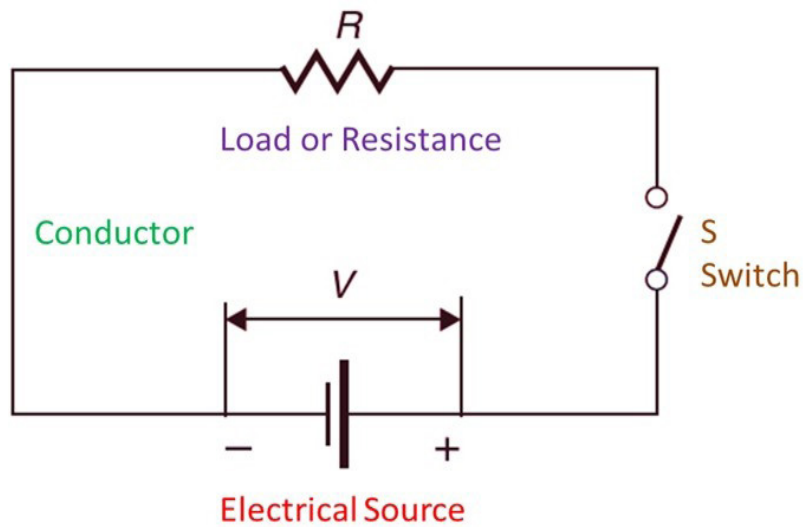
Fig. 2.1.4. Parts of Electric Circuit

The functions of parts of an electric circuit are:

- **Cell or electric source:** It is used as a source to supply electric current.

- **Load:** It is a resistor. It is basically a light bulb, which glows when the circuit is turned on.

- **Conductors:** Copper wires are used as conductors with no insulation. One end of the wire carries current from the power source to the load and the other end from the power source.

- **Switch:** It is a part of the circuit that controls the supply of current in the circuit. It is used to open or close the circuit.

Types of Electric Circuit

There are two types of electric circuits.
- Series circuit.
- Parallel circuit.

1. Series Circuit

In a series circuit, electrons can only flow in one direction. At the same moment, the circuit is closed or open. The fundamental drawback of a series circuit is that no current flows in the circuit in the event of a circuit break since the whole circuit is open. If any light bulbs are linked in a series circuit, for example, if one goes out, the others will likewise go out.
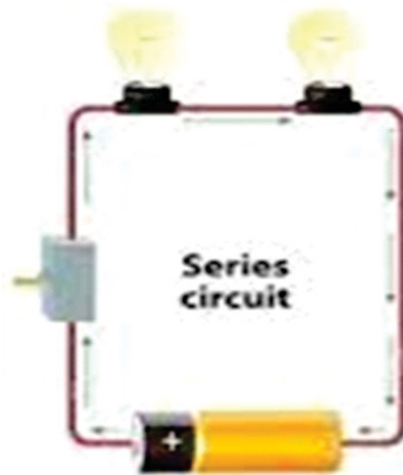
Fig. 2.1.5. Series circuit

2. Parallel circuit

In a parallel type of electric circuit, different parts of the circuit are connected across different branches. Hence, electron flow occurs in several parts. If in one path a circuit break occurs, electric current still flows in other paths. Parallel circuits are used in household appliance wiring, so if one light bulb fails, the other will continue to operate.
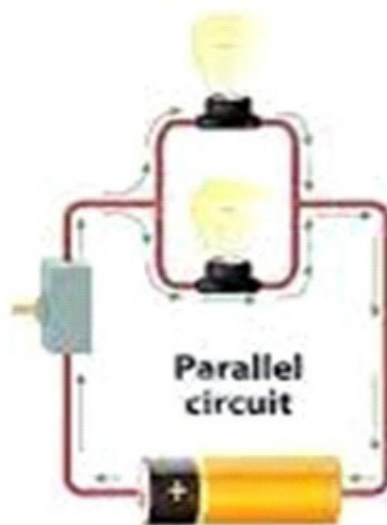
Fig.2.1.6 Parallel circuit

2.1.3 Electronic Components

Electronic components are the elements of the circuit that help in its functioning. They can be classified into two types, i.e. Active Components and Passive Components. Active components include transistors, batteries, etc., while passive components include transformers, inductors, resistors, capacitors, etc.

The electronic components and their functions are:

1. **Resistors**

   A resistor is one of the components one will come across in an integrated circuit. As the name suggests, the device resists the flow of current. Resistors are graded based on their power ratings (amount of power they can handle without exploding) and resistance values (capacity to resist current). The measurement is done in units known as ohms. The electronic symbol of the unit is O.
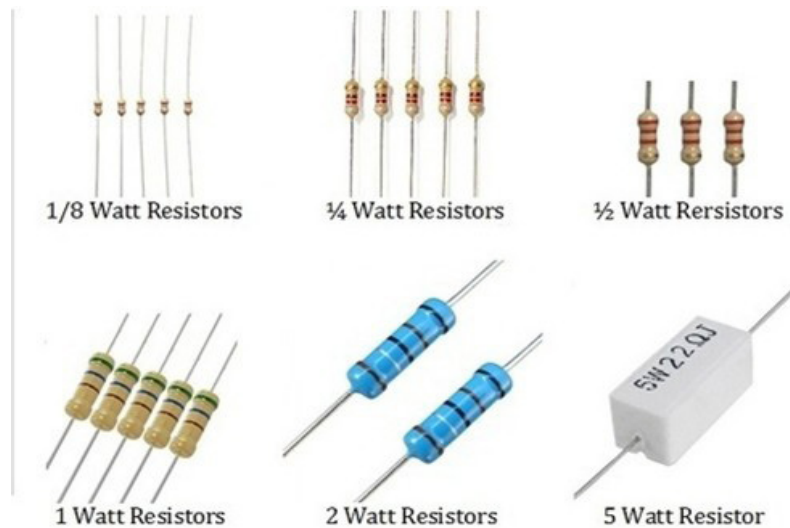
Fig. 2.1.1. Resistors

2. **Capacitors**

   These components can store electric charge temporarily. The components come in different varieties, with the most common ones being electrolytic and ceramic disks. The capacity of a component is usually measured in microfarads ($\hat{A}\mu F$).
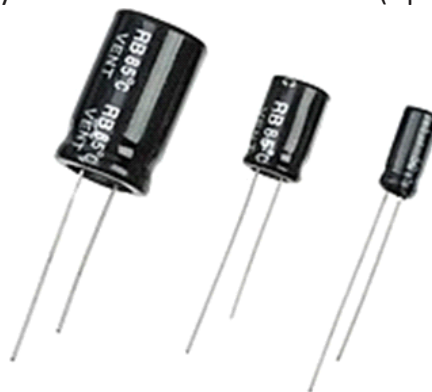
Fig. 2.1.2 Capacitor

3. Diodes

Diodes allow an electric current to flow in a single direction only. Each diode has two terminals known as the anode and cathode. When the anode is charged with a positive voltage and the cathode with a negative one, an electric current can flow. Reversing these voltages will prevent the current from flowing.

Fig. 2.1.3. Diode

4. Transistors

These components are easy to identify through their three terminals. For the components to work, voltage has to be applied to one of them; the base terminal. The base can then control the current flow in the two other terminals (the emitter and collector).

Fig. 2.1.4. Transistors

5. Inductors

These are passive components that store energy in the form of a magnetic field. An inductor simply consists of a coil of wire wound around some kind of core. The core could be a magnet or air. When current passes through the inductor, a magnetic field is created around it. The magnetic field is stronger if a magnet is used as the core.
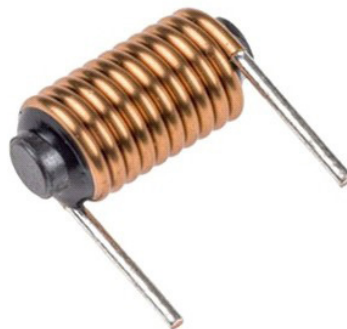
Fig. 2.1.5. Inductors

6. Integrated Circuits

An integrated circuit refers to a special device that has all the components required in an electronic circuit. The component has diodes, transistors, and other devices, all of which are etched on a tiny piece of silicon. The components are used in many electronic devices, including watches and computers.
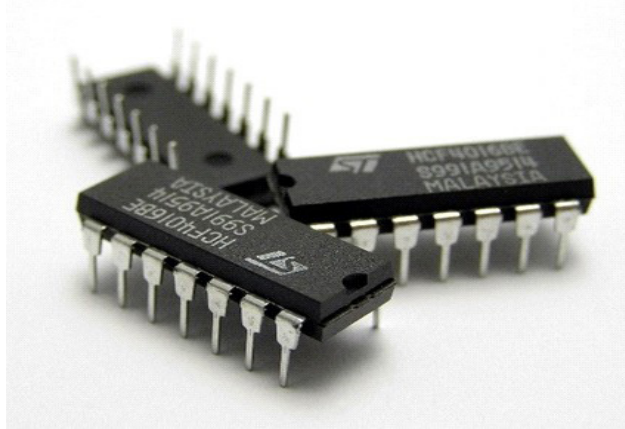
Fig. 2.1.6. Integrated Circuits

7. Microcontrollers

Microcontrollers are small computers used to control a multitude of devices, such as power tools, remote controls, medical equipment and office machines.

Fig. 2.1.7. Microcontrollers

8. Transformers

Built with two coils of wire, transformers are commonly used to step up or step down power.

Fig. 2.1.8. Transformers

9. Bateries

Batteries convert chemical energy to electrical energy. The two different cells of a battery are anode (+) and cathode (-).

Fig. 2.1.8. Batteries

10. Fuses

Fuses help preserve components from overloading with excessive current. A fuse consists of a connection body, support, contacts, and metal-fuse material such as zinc or copper.

Fig. 2.1.10. Fuses

11. Relays

These electromechanical switches shut power on or off. A relay includes an electromagnet, an armature, a series of electrical contacts and a spring.

Fig. 2.1.11. Relays

12. **Switches**

Switches interrupt current. The four types of switches are single pole single throw (SPST), single pole double throw (SPDT), double pole single throw (DPST), and double pole double throw (DPDT.
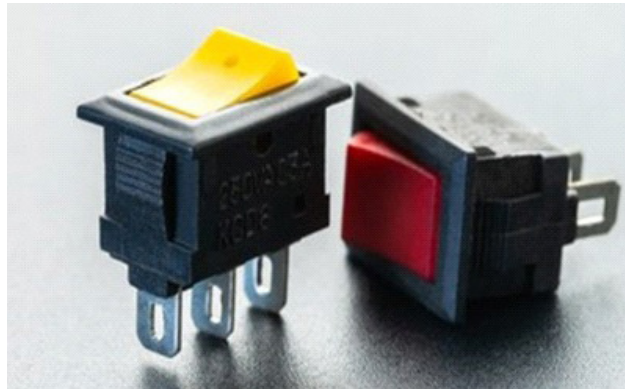
Fig. 2.1.12. Switches

13. **Motors**

Motors convert electrical energy into mechanical energy. Key components include a rotor, stator, bearings, conduit box, enclosure, and eye bolt.

Fig. 2.1.13. Motors

14. **Circuit Breakers**

As a protective device, a circuit breaker can be controlled with a remote switch. It is designed to protect the circuit from overloading or a short circuit.
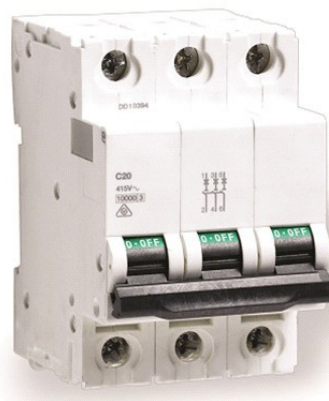
Fig. 2.1.14. Circuit breakers

2.1.4 Electrical Safety

Electrical safety refers to any type of precaution taken to protect against electric currents. Contact with electricity can cause serious injuries, including:

- Electrical shocks
- Electrical burns
- Electrocution

If severe enough, electrocution can be fatal. Employers are responsible for ensuring workplace safety by mandating workers to follow the correct safety procedures while dealing with electricity.

The basics of electric safety are:

- Working with exposed conductors carrying 50 volts or more is not recommended.
- Ensure that all electrical equipment is properly connected, grounded, and functional.
- Extension cables should not be utilised as permanent wiring and should be discarded after a single activity or event.
- Surge suppressors with built-in circuit breakers may be used for a long time and come in chord lengths of three, six, and fifteen feet.
- Space heaters, portable air conditioners, and other high-amperage devices must be connected directly to permanent wall sockets.
- Unless one is explicitly certified and permitted, one should not enter, utilise, or change any building's electrical service, including circuit breaker panels.

Electrical shocks are more likely in wet situations.

2.1.4. Procedure for Assembly and Wiring

Before starting any installation work, the first and foremost thing is the concern of safety of the personnel. Electricity is dangerous and direct or indirect contact of electrical equipment or wires with the power turned ON can result in serious injuries or sometimes even causes death. Follow the below steps to maintain the safety at the workplace.

Fig.2.1.4. Electrical Safety

1. Always use safety equipment like goggles, gloves, shoes, etc. and avoid any direct contact with live or energized circuits.
2. Have the skills and techniques to distinguish the exposed live parts of the electrical equipment.
3. Disconnect the source supply while installing or connecting wires.
4. The power supplied to the installation must be controlled on the main switchboard, which should consist of circuit breaker.
5. Conductive tools and materials must be kept at a safe distance from live parts of the circuit or equipment.
6. Use non-conductive hand tools for which they are rated to perform electrical work. If they are used for voltage (or current) rating other than rated, the insulation strength of the tool will breakdown and causes electric shock.

Know more about the electrical safety in this article: Electrical Safety

Distribution of Electricity

The Electricity Board / Department provides the electric supply up to the outside the consumer's premises (either residential, commercial or industrial). The consumer has to take the connection from that point to the main distribution board / switchboard at home.

From the main switchboard / distribution board, various types of electrical loads such as fans, lights, room coolers, and refrigerators are connected through respective circuits and electrical wiring.

Image

There are different types of wirings used for connecting the loads to the mains, which can be used for house electrical wiring as well as industrial electrical wiring. Some of these are discussed below.

Types of Electrical Wiring Systems

Electrical Wiring is an important part of a building, be it a residential building (individual houses or apartments), large commercial spaces (office buildings) or industries (factories). There are several methods and systems of Electrical Wiring, which are used for lighting and other power circuits.

The type of Electrical Wiring plays a major role in the overall cost of the installation. So, it is very important to understand what type of Electrical Wiring Systems are suitable for a particular job.

Some common factors to be considered while choosing a particular Electrical Wiring System are:

- Cost of the Wiring System
- Type of Wires / Cables used
- Quality of the Wires
- Type of load (light, HVAC, motors etc.)
- Safety of the Wiring System
- Possibility of future modifications / extensions
- Life of installation
- Construction of the building (wooden, concrete, brick and mortar, etc.)
- Fire safety

Irrespective of the type of Wiring and the choice of Wire, the Electrical Wiring System should be able to protect against regular mechanical wear and tear under normal operating conditions.

Usually, the type of wire determines the Electrical Wiring Systems (or at least their classification). Some of the commonly used Electrical Wiring Systems in Residential, Commercial, Industrial, Auditoriums, etc. are:

- Cleat Wiring
- Casing and Capping Wiring
- Batten Wiring (CTS or TRS)
- Conduit Wiring (Surface or Concealed)
- Lead Sheathed Wiring

2.1.5 Types of Drawings

Electrical Drawings plays an important role in electrical installation works as they convey information about connection of various devices and equipment with mains. The information on drawings provides the complete design or plan of electrical installation and also helps to assemble the various equipment.

Some of the electrical wiring diagrams are discussed below. Before knowing about these diagrams, first you must be aware of and have an idea about various symbols used while preparing drawing and also for understanding the wiring connections. Check out various electrical wiring symbols.

Block Diagram

It is a functional drawing which shows and describes the main operating principles of the equipment or devices. It consists of principle functions or parts represented by blocks and are connected through lines that show the relationship between the blocks.

This diagram is usually drawn before implementing a circuit diagram. It will not give any detailed information about the system and also leaves the information about smaller components. And hence, most technicians have limited interest about this diagram.
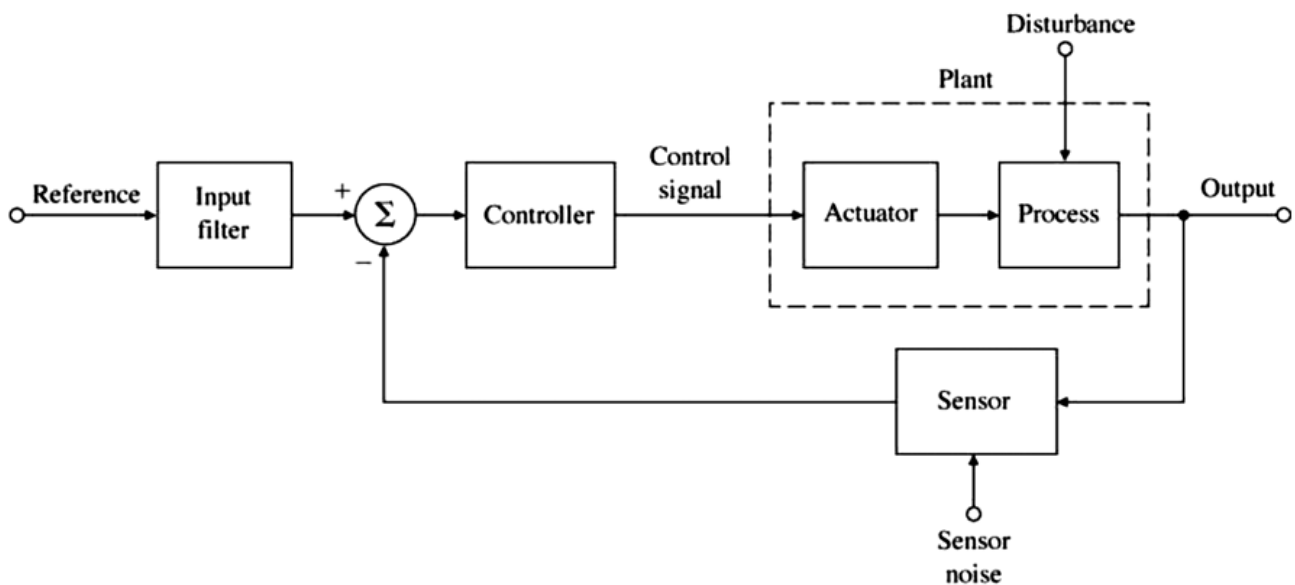
Fig. 2.1.5(A) Block diagram

Circuit Drawing (Diagram)

In this, electrical circuit is graphically represented in a simplified manner. It includes the position information (in mm, cm or m) of various elements like light fixtures, receptacle boxes, junction boxes, ceiling fans, etc.
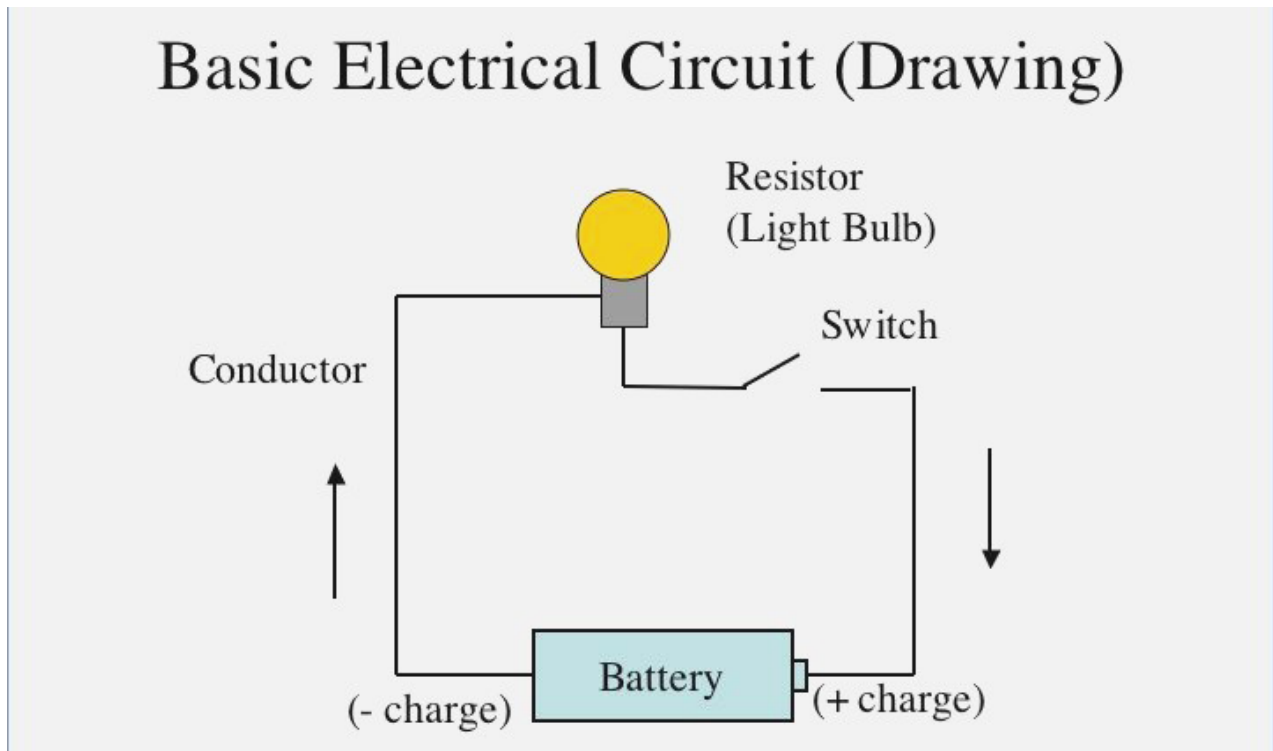
Fig. 2.1.5(B) Circuit diagram

Line Diagram

- It is a simplified notation of an electrical system, also called as One-Line Diagram or Single Line Diagram. It is similar to the block diagram except that various electrical elements such as transformers, switches, lights, fans, circuit breakers, and motors are represented by standard schematic symbols.

- It consists of symbols to represent the components and lines to represent the wires or conductors which connects the components together.

- The line diagram is actually derived from the block diagram. It doesn't give any layout of the parts and their detail wiring information of the components.

However, you can do wiring by following the information given in this diagram. These diagrams are usually intended to illustrate the working of an electric circuit.
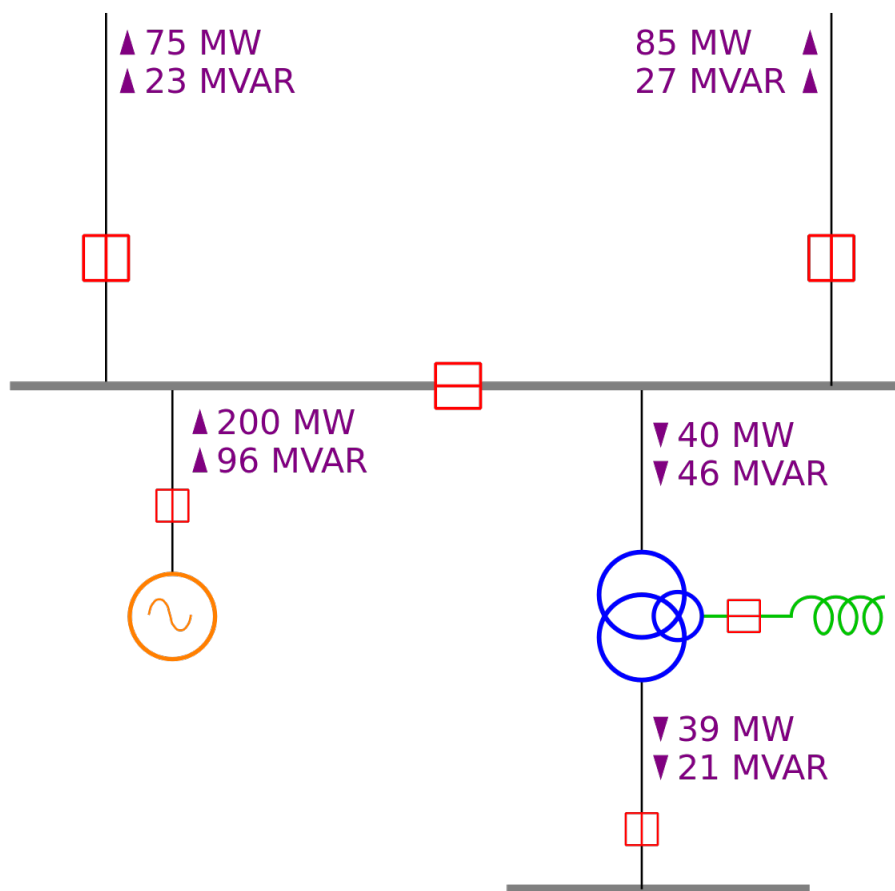
Fig. 2.1.5(C) Line diagram

Wiring Diagram

- The electrical wiring diagram is a pictorial representation of the circuit, which shows the wiring between the parts or elements or equipment.

- It gives detailed information about wiring such that one can get an easy idea of making connection between the devices. It includes relative position, arrangement of the devices and also terminals on the devices.

- It shows power supplies and earth connections, control and signal functions (with simplified shapes), termination of unused contacts and leads, interconnection via plugs, blocks, sockets, terminal posts, lead-through, etc.
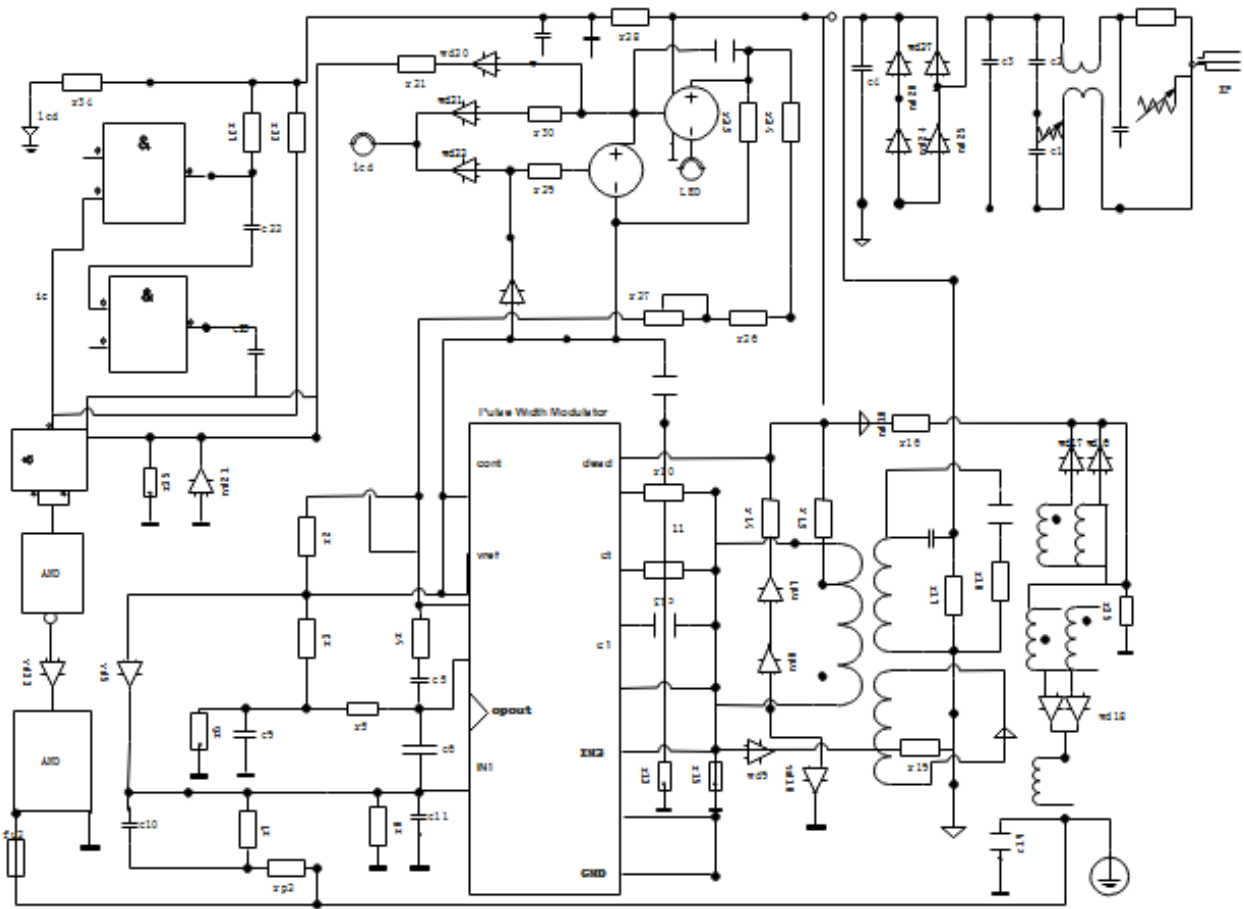
Fig. 2.1.5(D) Wiring diagram

Wiring Schedule

- It is a list of cables or wires used in the installation with its reference number, length, type and the amount of insulation stripping required for soldering the cable. It gives the raceways of the wire and also starting and termination points.

- In some complex equipment, wiring table gives the interconnection of the equipment (such as motors and heaters) with starting and finishing reference points. It also includes the wire identification markings, wire colors, size and so on.

Parts List

- Although it is not a drawing, parts list is an integral part of drawing, which defines the various symbols and parts used in other drawings such as wiring diagram, line diagram and block diagram.

- It gives the information on the type of circuit component with their reference numbers. This list is useful for identifying, locating and cross referencing the actual component labeled or given in other electrical drawings in order to ensure the choice of appropriate parts before doing the electrical wiring.

Wiring Preparation

As we are discussing the sequence of steps in wiring like understanding the safety, knowing types of wiring systems, understanding the difference among various electrical drawings and symbols, the next step of electrical wiring process is the preparation of wires or cables and electrical tools.

The wiring preparation includes the following considerations.

1. The type of conductor can be single solid wire or stranded wire conductor (which is made up of a number of thin stands). Single solid wires are not flexible and are used where rigid connections are required such as power switching contractors. Mostly stranded conductors are preferred for electrical installations.
2. The specifications of the wire depend on the several factors like number of strands in the conductor, insulation type, cross section area of the wire, diameter of the strands, etc.
3. Choose the wires depends on the color code mentioned by various standards such as brown for phase wire, blue for neutral, green for earth and so on. Click here to know briefly about the electrical wiring colors of the wires or cables.
4. Various basic electrical tools are required to do the installation work and some of these tools include cutter, strippers, testers, pliers, etc. These tools are explained in our earlier articles, so please check those electrical tools by clicking here.
5. Choose the components such as electrical boxes, switches, receptacles, etc. based on their size and rating. Start wiring the components together by following the wiring diagrams. Once components, tools and cables are selected, by considering and following the safety of personnel as well as equipment, proceed with installation.

Types of Electrical Wiring

- We know that electrical circuit is a closed path through which electricity flows from phase or hot wire to the device or apparatus and then back the source though neutral wire.

- Along the way, the electricity path may consist of fixtures, switches, receptacles, junction boxes, etc. So, the wiring may be routed through these elements before actually making connections with apparatus or device.

- Majorly, the wiring is divided into two types depending on the way the devices are powered or connected to the supply. They are:
  - Parallel Wiring
  - Series Wiring
  - In Parallel Wiring, several devices on the installation are powered on a single circuit. It is the most accepted wiring in homes and industries, in which devices are connected in parallel with the supply source as shown in figure.

  In this, both phase (or hot) and neutral cables are routed through the electrical boxes (junction boxes) from which individual receptacles, fixtures, and devices are branched.
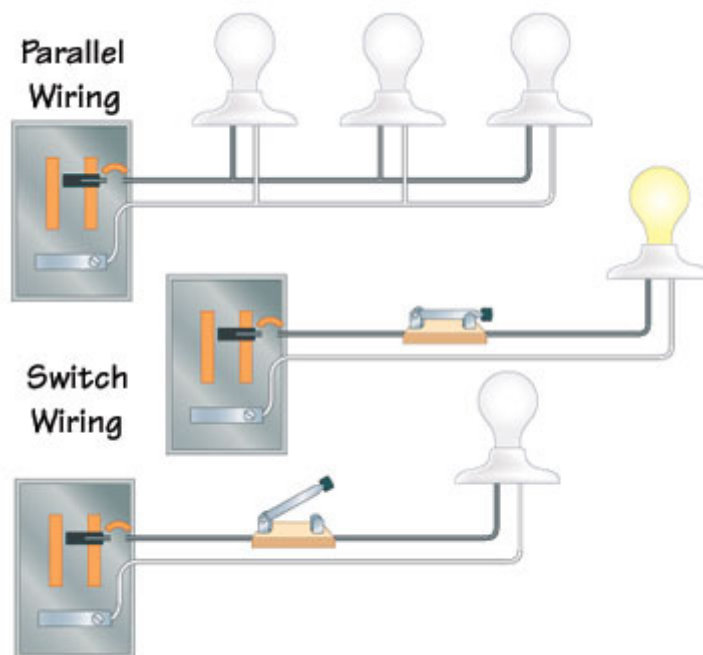
Fig.2.1.5 parallel& switch wiring

- The Series Wiring is the rarely used wiring in which hot wire is routed through the several devices and then last device terminal is connected to the neutral wire. It is like an old Christmas lights or serial lights wiring in which one light burnout leads to the shutdown of the entire network.
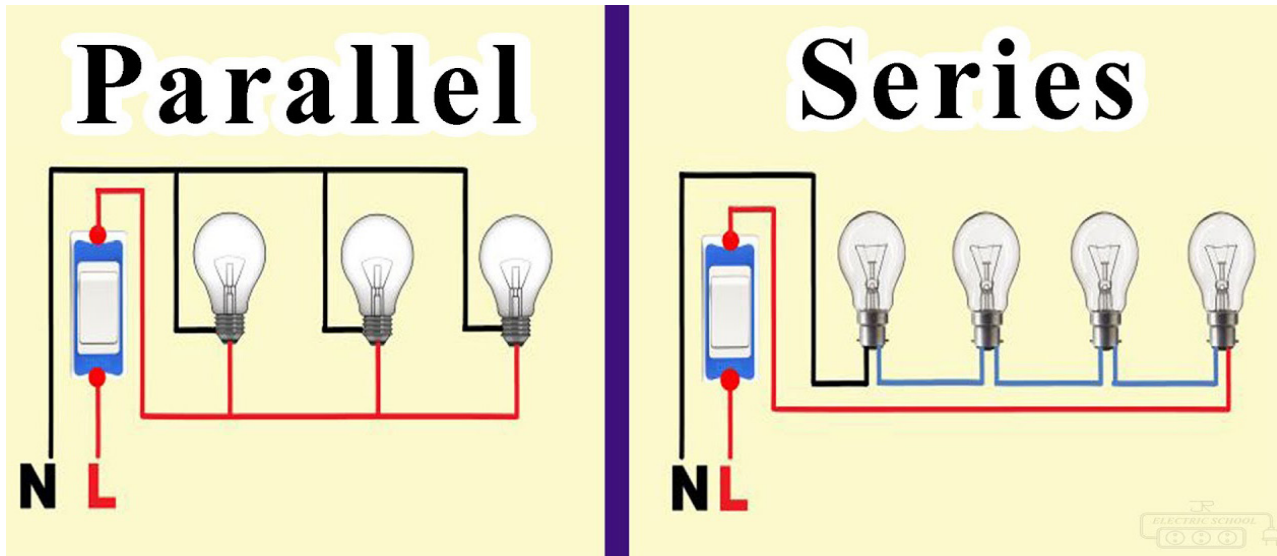
Fig.2.1.5 parallel and series wiring

2.1.6 Electrical Panel and Control Circuits

- The electrical panel can be considered as the heart of electrical wiring system. It is also called using other names such as Circuit Panel, Circuit Breaker Panel, Distribution Box, Fuse Box or Panel.

- As most modern electrical panels consist of circuit breakers rather than fuses, the name Fuse Box may not be entirely accurate but it is struck as older homes have fuses instead of much safer circuit breakers.

- Irrespective of the name, an electrical panel is a large metal box which consists of an array of circuit breakers that protect respective circuits from overloads. It is recessed into the wall and is usually found near utility area or garage or an exterior wall or the basement, right next to the electric meter.

- It acts as the main **"distribution"** point for the entire home's electricity. The two hot wires from your utility company are received by the electrical panel. From the panel, the electricity is distributed to different circuits of the home using respective circuit breakers.

- Depending on wiring implemented in your home, all the lights might be connected to one circuit or an individual room might be connected as a single circuit, or all outlets in your kitchen might be connected to a single circuit.

Some common circuit breaker sizes are:

- 15-Amp Breakers

- 20-Amp Breakers

- 40-Amp Breakers

- 50-Amp Breakers

- 60-Amp Breakers

- 100-Amp Breakers

- 200-Amp Breakers

Signs Indicating an Electrical Panel Upgrade

- If your home is 25years or older, then it probably has an outdated wiring and electrical panel to keep up with the current electricity demands. Even though a typical electrical panel lasts for more than 25years, the increased utilization of electrical appliances and gadgets might make your panel insufficient and you have to upgrade it with a better option.

- Another reason to upgrade is if your panel still has fuses instead of circuit breakers. Fuses are yester generations' system and are not as safe as circuit breakers. Fuse based electrical panels might not get the same support as circuit breaker options from the insurance companies, in case of an unfortunate event.

- Rust is a common problem with metals and if rust builds up in the electrical panel or circuit breakers, then it might damage the connections, which could further lead to increase in temperature and fire. If you see burn marks or smell burning plastic, then you have to immediately upgrade your panel and avoid fires.

Some Other Signs that Indicate an Electrical Panel Upgrade are:

- **Electrical Shocks:** If your receptacle gives you mild shocks when you insert something or toggle the switch, then the wiring behind the receptacle or switch might be defective or installed incorrectly.

- **Burning Smell or Sparks:** If the outlets look burned out or starts deteriorating in color, it might be a sign of faulty wiring or circuit. Burning Smell usually means you are overloading the circuit and wire is overheating.

- **Lights Flicker and Dim:** If you turn on a heavy electrical appliance such as an oven or electrical heater and notice that lights dim for a moment, then it usually indicates that the wiring is not designed to handle the load and you are overloading the circuit.

- **Circuit Breakers trip frequently:** If your circuit breaker trips frequently, then it is an indication that the circuit is overloaded or old and couldn't handle the demand.

- **Home Remodeling:** Remodeling and upgrading your home usually means you are expanding it and since it involves adding new circuits, you might as well take a look at the old system and see if it needs any upgrades.

- **Installing a New Appliance:** When you are installing a new and powerful electrical appliance, you definitely have to install a dedicated circuit to that appliance, which might usually be a 240V circuit.

- **Do not Rely on Power Strips and Extension Cords:** If you feel that existing outlets are not sufficient to plug-in all your gadgets and device and you use power strips and extension cords, then it is high time you stop that. Power strips and extension cords are a sever fire hazard and instead of using them, you could invest in upgrading your panel with additional circuits and outlets.

Control Circuits

A control circuit is a special type of circuit used to control the operation of a completely separate power circuit. Consider a 1,000 horsepower, large industrial motor driving a water pump. The motor is connected to a high voltage electrical supply of 2,400 volts.

When this motor is energized, it must draw enough current to get the water moving and it is common for a motor to draw about six times its normal operating current for a short period of time. When we were talking about controlling light bulbs, it was safe to operate a simple switch on the wall. But now this large amount of current flowing when the motor starts can be troublesome. The first concern is the operator's ability to safely close the switch. The second concern is that when the operator opens the switch to turn the motor off, the electricity will continue to try to complete the path. This will tend to arc between the contacts of the switch as it is opened. This arcing is not only dangerous but also damages the switch by severely burning the contact points. A control circuit is used to ensure that the motor is started and stopped in a safe manner for both the operator and the equipment.

2.1.7 Selection Criteria of tools, measuring instruments, equipment and electrical components

Selecting the right electronic component is one of the most critical & challenging aspects of product design. Here, I do not aim to explain how to select different components like resistor, capacitor, transistor, digital IC, microcontrollers, relay, connector, display, etc. as there is no *one* answer to this challenge. The correct answer is, you should know clearly what your requirements w.r.t a particular component is.

There are so many ways to solve the same problem, it will depend on various things like, if you need a compact design, easy to manufacture design, most affordable, most power efficient, least number of components, most reliable, etc. So, at the end it's a trade-off, where, you are trying to decide which component matches most of your requirements. Every component is different and needs specific attention, but, general rules of the game remains the same.

2.1.8 Electrical Equipment Inspections

During your annual maintenance check-ups, remember to check equipment including:

- Local disconnects for machines and equipment.
- Electrical panels.
- Batteries on battery-powered equipment.
- Wiring terminations in equipment subject to vibration.
- Cord and plug connected equipment.
- Other miscellaneous compromised electrical components such as broken or disconnected conduits, and flexible connections.

Check each of these items for cracks, deterioration, or corrosion. Clear the areas near them of dust and other debris that could cause potential equipment failure or hinder access for your electrical maintenance technician. Remember to turn off power to the machines, wiring, or other equipment before cleaning or performing any type of maintenance.

It's important to pay attention to performance issues like flickering lights, spontaneously low power, or odd equipment resets. Employee feedback and notes about equipment performance should be considered in any equipment testing and inspection since they're the people most likely to notice the small electrical hiccups that could be a sign of a failing part or a malfunctioning connection.

During your EPM work, it is a good time to check if your existing installations are up to code. Making these repairs before they become a problem will be another way to keep from unnecessary down-time or failed inspections.

Unit 2.2 Installation of Electrical Panel

Unit Objectives 🎯

By the end of this unit, participants will be able to:

1. Understand how to install Electric panel

2.2.1 Installation of Electrical Panels

- To make sure that the entire installation is in conformance and in accordance with the design intent of the project for the Electrical and Low Voltage System in addition to the specification and as per approved shop drawings and comply.

- With local and International Standards.

- All the switchboards shall be fabricated at the manufacturer's works.

- Before beginning installation in any area, examine all parts of the adjoining works into which applicable work is to be placed. Should any condition be found which will prevent the proper execution of the work, installation shall not proceed in that area until such conditions are corrected by the contractor.

- Fix all equipment independently of wiring system. Use cadmium of zinc electroplated bolts, nuts, washers and screw.

- Mount single DB at 1800mm from finish floor level to top of equipment, unless shown otherwise on drawing / schedules.

- Ensures that clearance in front of switchgear is not less than 1m, or as indicated.

- Number terminals, cables and component parts to correspond with manufacturer have certified drawings.

- Terminate PVC, SWA PVC and MICS cables inside enclosure by securing cables to switchboards with gland bracket; and enclosure with glanding plates or fabricated steel extension boxes.

- For flush installation, DB's all conductors shall terminate behind the board in an adaptable box. For surface mounting, trunking shall be fixed between the board and ceiling or floor level, or conduit run directly into Trunking which prevent correct installation of the Trunking lid. Adequate earth continuity shall be made between the various components.

2.2.2 Common Error during Electrical Installation

1. **Exposed wire**

   This is frequent in receptacles, or light fixtures. The exposition of a cable can cause short circuit if it is closes to another wire or a metal.

   Fig.2.2.2(A)Exposed wire

2. **Rust and scratched wires**

   During installations you might find some nicks wires due to lack of maintenance or careless when purchasing them. Such cables can increase overheat.

   Fig.2.2.2(B)Scratched wire

3. **Loosen cables**

   Present on walls, ceiling, inside or outside a building. They can be cut accidentally (by children or workers) while damaging the cables leading to severe injuries if loaded.

4. **Bury electrical or junction boxes**

   This is one of the worst mistakes I have ever seen. I have never understood why it is necessary for an electrician to hide electrical boxes inside ceiling or behind drywall. No! No! No! They should be visible and available for further problems or systems failures. Inspection and maintenance will be done easier while avoiding costly repairs and renovation.

5. **Choose the wrong circuit breaker**

Fig.2.2.2(C) Circuit breaker

Circuit breakers are used for the protection of equipment and persons In case of short circuit or overload. Very often, This mistake is due to the misinterpretation of the new codes and rules of the national board.

6. **Loose connections or connect wires with electrical tape**

If electrical tape represent a good idea as a temporary solution, it is not recommended to use it permanently. It can deteriorate over time. Wires should never be left with any protection in order to avoid electrocution.

7. **Open junction boxes**

You might think that because your wires are well connected and protected you can live the box like that. No it is not safe, your work is uncompleted and looks very unprofessional.

8. **Overcrowd your outlet or electrical box with wires**

Connections cannot be well done due to the lack of space. This mistake cause an overheating inside the boxes which lead to potential electrical fire.

9. **Connect sockets without ground wire**

Old receptacles were designed with Hot and neutral screw and were widely used in installations but norms have changed since then and it is recommended to only use receptacle with a third ground connection.

10. **Run cables incorrectly**

Especially in basements, you might intend to use plastic staples under the floor to fix the cables but this method is prohibited by the laws in force.

11. **Use undersized extension cords**

It is very common to use extension cord in wiring project to plug material or appliances in where you can't normally. But very often workers use extension cords that are not well adapted to run such appliances due to their small power. These extension cords can cause overheat, which invite fire.

12. **Connections are not proper**

During an installation take your time. Although this fault is not common for certified electrician it might occurs that due to some unknown reasons you reverse the polarity of the receptacles. Hot and neutral wires have their dedicated locations and it is indicated on the device.

2.2.3 Methods of Inspecting the Quality of Assembled Control Panels

The Third Party Inspection for Control Panel provides a sample procedure for control panel testing and control panel inspection in the manufacturing shop.

All control panel inspection and testing is done against the approved drawings, purchase order specifications, purchasers or company standards, and within the practices and rules of the country, state or province and any government decrees, laws, ordinance or regulation as may apply.

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Unit 2.3 Safety and Security

Unit Objectives ◎

By the end of this unit, participants will be able to:

1. Understand Safety aspect of electrical activity

2.3.1 Safety Rules for Working with Electricity

Safety must not be compromised and some ground rules need to be followed first. The basic guidelines regarding the safe handling of electricity documented below will help you while working with electricity.

1. Avoid water at all times when working with electricity. Never touch or try repairing any electrical equipment or circuits with wet hands. It increases the conductivity of the electric current.

2. Never use equipment with frayed cords, damaged insulation, or broken plugs.

3. If you are working on any receptacle at your home then always turn off the mains. It is also a good idea to put up a sign on the service panel so that nobody turns the main switch ON by accident.

4. Always use insulated tools while working.

5. Electrical hazards include exposed energized parts and unguarded electrical equipment which may become energized unexpectedly. Such equipment always carries warning signs like "Shock Risk". Always be observant of such signs and follow the safety rules established by the electrical code followed by the country you're in.

6. Always use appropriate insulated rubber gloves and goggles while working on any branch circuit or any other electrical circuit.

7. Never try repairing energized equipment. Always check that it is de-energized first by using a tester. When an electric tester touches a live or hot wire, the bulb inside the tester lights up showing that an electrical current is flowing through the respective wire. Check all the wires, the outer metallic covering of the service panel, and any other hanging wires with an electrical tester before proceeding with your work.

8. Never use an aluminum or steel ladder if you are working on any receptacle at height in your home. An electrical surge will ground you and the whole electric current will pass through your body. Use a bamboo, wooden or a fiberglass ladder instead.

9. Know the wire code of your country.

10. Always check all your GFCI's once a month. A GFCI (Ground Fault Circuit Interrupter) is a RCD (Residual Current Device). They have become very common in modern homes, especially damp areas like the bathroom and kitchen, as they help avoid electrical shock hazards. It is designed to disconnect quickly enough to avoid any injury caused by over-current or short circuit faults.

2.3.2 Electrical Shock Hazards

- The major hazards associated with electricity are electrical shock, fire and arc flash. Electrical shock occurs when the body becomes part of the electric circuit, either when an individual comes in contact with both wires of an electrical circuit, one wire of an energized circuit and the ground, or a metallic part that has become energized by contact with an electrical conductor.

- The severity and effects of an electrical shock depend on a number of factors, such as the pathway through the body, the amount of current, the length of time of the exposure, and whether the skin is wet or dry. Water is a great conductor of electricity, allowing current to flow more easily in wet conditions and through wet skin.

- The effect of the shock may range from a slight tingle to severe burns to cardiac arrest. The chart below shows the general relationship between the degree of injury and amount of current for a 60-cycle hand-to-foot path of one second's duration of shock. While reading this chart, keep in mind that most electrical circuits can provide, under normal conditions, up to 20,000 milliamperes of current flow.

Current	Reaction
1 Milliampere	Perception level
5 Milliamperes	Slight shock felt; not painful but disturbing
6-30 Milliamperes	Painful shock; "let-go" range
50-150 Milliamperes	Extreme pain, respiratory arrest, severe muscular contraction
1000-4,300 Milliamperes	Ventricular fibrillation
10,000+ Milliamperes	Cardiac arrest, severe burns and probable death

In addition to the electrical shock hazards, sparks from electrical equipment can serve as an ignition source for flammable or explosive vapors.

Arc Flash

A hazardous arc flash can occur in any electrical device, regardless of voltage, in which the energy is high enough to sustain an arc. Potential places where this can happen include:

- Panel boards and switchboards

- Motor control centers

- Metal clad switch gear

- Transformers

- Motor starters and drive cabinets

- Fused disconnects

- Any place that can have equipment failure

In an arc flash incident, an enormous amount of concentrated radiant energy explodes outward from electrical equipment. The explosion creates pressure waves that can damage a person's hearing, a high-intensity flash that can damage their eyesight and a superheated ball of gas that can severely burn a worker's body and melt metal.

Qualified Personnel vs. Unqualified Personnel

For the purposes of electrical safety related work practices, there are two types of employees in the work place that may come in contact with electrical equipment on a jobsite: qualified and unqualified. A Qualified employee is defined as a worker who

- Has been trained to avoid electrical hazards when working on or near exposed energized parts.
- Is familiar with the safety related work practices as required by OSHA standards.
- Is able to distinguish exposed live parts of electrical equipment.
- Is knowledgeable of the skills and techniques used to determine the nominal voltages of exposed parts and components.

An Unqualified employee is defined as a worker who has little or no training regarding electrical hazards. Even though unqualified persons should not be exposed to energized parts, they should be provided with information and training necessary to perform their job in a safe manner and understand the following:

- Be familiar with any electrical hazards in the workplace.
- Understand procedures to follow and to protect themselves when they work around electricity.
- Understand which tasks that can only be performed by qualified workers (e.g. maintenance and repairs).
- Know when and how to report electrical problems.
- Know what to do in the event of emergency involving electricity.
- Know how to inspect electrical tools and equipment before use to make sure insulation and wiring are in good condition.

Live parts to which an employee may be exposed must be deenergized before the employee works on or near them unless deenergizing the parts introduces additional or increased hazards or is unfeasible due to equipment design or operational limitations. Examples of increased or additional hazards include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area. Live parts that operate at less than 50 volts to ground need not be deenergized if there are no increased exposures to electrical burns or to explosions due to electric arcs

Working On or Near Energized Circuits

Live parts to which an employee may be exposed must be deenergized before the employee works on or near them unless deenergizing the parts introduces additional or increased hazards or is unfeasible due to equipment design or operational limitations. Examples of increased or additional hazards include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area. Live parts that operate at less than 50 volts to ground need not be deenergized if there are no increased exposures to electrical burns or to explosions due to electric arcs.

Deenergized Parts

When employees work on deenergized parts or near enough to them to expose the employees to any electrical hazard they present, the following safety related work practices must be followed:

- Treat as energized any conductors and parts of electrical equipment that have been deenergized, but have not been properly locked out or tagged.

- While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both. In addition, electrical hazards must be controlled; a qualified person must test the circuit to verify deenergization from all voltage sources.

- Safe procedures for deenergizing circuits and equipment must be determined before circuits or equipment are deenergized. All electric energy sources must be disconnected. Control circuit devices, such as push buttons, electric switches, and interlocks must not be used as the sole means of deenergizing circuits or equipment. Interlocks must not be used as a substitute for lockout and tagging procedures.

Energized Parts

Employees are considered working on or near exposed energized parts when working on exposed live parts either by direct contact or contact be means of tools or materials or when working near enough to energized parts to be exposed to any hazard they present. Only qualified persons are permitted to work on electric circuit parts or equipment that have not been deenergized (lockout/ tag out). Qualified persons are capable of working safely on energized circuits and are familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

Approach distances for qualified person to alternating current

Voltage Range (Phase to Phase)	Minimum Approach Distance
300V and less	Avoid contact
Over 300V, not over 750V	1 foot
Over 750V, not over 2kV	1 ft. 6 in.
Over 2kV, not over 15kV	2 feet
Over 15kV, not over 37kV	3 feet
Over 37kV, not over 87.5kV	3 ft. 6 in.
Over 87.5kV, not over 121kV	4 feet

Overhead Lines

When work is to be performed near overhead lines, the lines must be deenergized and grounded, or other protective measures taken before the work is started. Such protective measures, such as guarding, isolating or insulating, shall prevent the qualified person performing the work from contacting the lines with any part of their body or indirectly through conductive material, tools, or equipment.

Unqualified persons working in an elevated location near overhead lines are not allowed to come closer or to handle the conductive objects which may contact or come closer to any unguarded, energized overhead line than the following distances:

Voltage to Ground	Distance
50kV or below	10 feet
Over 50kV	10 feet (plus 4 in. for each 10kV over 50kV)

Unqualified persons working on the ground in the vicinity of overhead lines are not allowed to bring a conductive object or any insulated object which does not have the proper insulating rating closer to unguarded, energized overhead lines that the distance specified above.

Qualified persons working in the vicinity of overhead lines, whether in an elevated position or on the ground, are not allowed to approach or take any conductive object without an approved insulating handle closer to exposed energized parts that in the table above, Approach Distance for Qualified Persons, unless a.) The person is insulated from the energized part by using the proper gloves, with sleeves if necessary, rated for the voltage involved, or b.) The energized part is insulated from all the person, or c.) The person is insulated from all conductive objects at the potential different from the energized part.

Electrical Safety Protective Methods

Use of Protective Equipment

Employees working in areas where there are potential electrical hazards must be provided with and use electrical protective equipment appropriate for the parts of the body to be protected and the work performed. Protective equipment must be maintained in a safe, reliable condition and be periodically inspected or tested as required by 29 CFR 1910.137, Electrical Protective Devices. Where the insulating capability of protective equipment is subject to damage during use, the insulating material must be protected by covering with leather or other appropriate materials. Nonconductive head protection must be worn wherever there is danger of head injury from electrical shock or burns due to contact with exposed energized parts. Protective equipment for the eyes must be worn where there is danger of eye and/or face injury from electric arcs and flashes or flying objects resulting from electrical.

General Protective Equipment and Tools

Insulated tools and handling equipment must be used by employees working near exposed energized conductors or circuit parts if the tools and/or equipment may make contact with the conductors or parts. The insulating material of tools and equipment must be protected where it is subject to damage. Fuse handling equipment, insulated for the circuit voltage, must be used to remove or install fuses when the fuse terminals are energized. All ropes and hand lines used near exposed energized parts must be nonconductive. Protective shields, protective barriers, or insulating material must be used to protect employees from shock, burns, or other electrical related injuries while employees are working near exposed energized parts which might be contacted or where dangerous electric heating or arcing might occur. When normal enclosed live parts are exposed for maintenance or repair, the parts must be guarded to protect unqualified persons from contact with the live parts.

Alerting Techniques

Alerting techniques must be used to warn and protect employees from electrical shock hazards, burns, or failure of electric equipment parts. Safety signs, safety symbols, or accident prevention tags must be used where necessary to warn employees about electrical hazards which may endanger them. Barricades should be used in conjunction with safety signs where necessary to prevent or limit employee access to work areas exposing employees to un-insulated energized conductors or circuit parts. Conductive barricades must not be used where they might cause an electrical contact hazard. An attendant should be stationed to warn and protect employees where signs and barricades do not provide sufficient warning and protection.

Arc Flash Personal Protective Equipment

This Personal Protective Equipment provides protection after an arc flash incident has occurred and should be viewed as the last line of protection. Selection of the appropriate PPE for the task to be performed is based upon hazard categories found in *NFPA 70E – 2004,* which should appear on labeled electrical panels and equipment.

The following table is provided as a quick reference. Workers must ensure that they have reviewed all appropriate safety requirements before work begins.

Personal Protective Equipment Requirements for Arc Flash Protection

Category	Energy Level	PPE Requirements
0	≤ 2 cal/cm²	Non-melting or untreated natural fiber
1	4 cal/cm²	Fire Resistant (FR) shirt and pants
2	8 cal/cm²	Fire Resistant shirt and pants, cotton underwear
3	25 cal/cm²	Two layers Fire Resistant clothing, cotton underwear
4	40 cal/cm²	Fire Resistant shirt and pants, multilayer flash suit, cotton underwear.

Face protection includes face shield and/or safety glasses. Hand protection includes leather over rubber for arc flash protection. Leather work boots above 4 cal/cm².

Working Outdoors and Extension Cords

Working Outdoors

Electrical hazards on construction or renovation sites or work performed outdoors must be controlled through the use of Ground Fault Circuit Interrupters (GFCIs).

- All 120-volt, single-phase, 15 or 20 ampere receptacles that are not part of permanent wiring must be protected by GFCIs. (Receptacles on smaller generators are exempt under certain situations. Consult with your supervisor or EHS with any questions.).
- Light bulbs used for general illumination must be protected from breakage.
- Temporary lights must not be suspended by their cords, unless so designed.
- Portable lights or tools used in wet or conductive locations must be protected by GFCIs or operate at 12 volts or less.

Extension Cords

- Workers must visually inspect extension cords and cord and plug connected equipment daily before use. Damaged extension cords must be removed from service and destroyed. Damaged or defective equipment must be removed from service and destroyed or repaired by a qualified electrician.

- Extension cords must be three-wire type. Extension cords or flexible cords used for lighting must be designed for hard or extra hard usage (e.g., types S, ST, SO)

- Flexible cords must be connected to devices and fittings so that strain relief is provided and prevents pull from being directly transmitted to joints or terminal screws.

EXERCISE ✎

Short Questions

1. What is control circuit?

2. Explain parallel and series wiring.

3. What is wiring schedule?

4. Explain electrical hazards.

5. Write short notes on arc flash and energized parts.

Long Questions

6. Describe basic fundamentals of electricity and circuits.

7. Illustrate current and voltage distribution in series and parallel circuits.

8. Describe organisational process or procedure for assembly and wiring.

9. Discuss the information derived from the engineering drawings, wiring diagrams, component symbols, blueprints, job sheet etc.

10. Describe functioning of electrical panel and control circuits.

11. Describe functioning and use of various electrical components such as MCB's, relay, contractor, fuse etc. used in machine, control panels and electrical circuits.

12. Describe the selection criteria of tools, measuring instruments, equipment and electrical components required during assembling work.

13. Summarise the steps to be performed for checking the tools, measuring instruments, equipment and electrical components before use.

14. Discuss the necessary precautions to avoid any hazard and accident during assembling activities.

15. Describe the standards and procedure for installation of electrical panels.

16. Explain the process of escalating the problems faced during installation and assembly activities to the supervisor or concerned authority.

17. Describe post-assembling processes like cleaning, quality check etc.

18. List the commonly occurring defects and their remedies in the electrical panels.

19. Describe various checks that need to be made to ensure that equipment is safe and ready to use.

Notes

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3. Communicate and coordinate effectively with others

Unit 3.1 – Communicate effectively with supervisor and colleagues
Unit 3.2 – Respect Gender and ability difference

Key Learning Outcomes

At the end of this module, you will be able to:

1. Trainee will be able to List and discuss potential hazards at the workplace

2. Trainee will came to know about the importance of following organizational guidelines for dress code, time schedules, language usage and other behavioural aspects.

3. Trainee will be able to maintain personal safety and hygiene at the workplace

4. Trainee will be came to know about the process of reporting grievances and unethical conduct such data breach, sexual harassment at the workplace, etc.

5. Trainee will be ale to coordinate with Pwd candidates effectively.

Hazards At Workplace

One of the essential factors to a positive work environment is establishing good working relationships with your co-workers and your supervisor. According to a recent workforce study, 84% of employees rated their relationship with their supervisor as good or excellent. The study also found that these strong relationships are based on trust from both employees and supervisors, and that it takes an open line of communication from both parties to create this type of environment. With that said, successful relationships are built upon the practice of effective communication skills. Effective communication with your supervisor is a key element of your eventual success in the workplace. Therefore, it is important that you feel comfortable and prepared to approach your supervisor in a timely manner to discuss concerns, request assistance, or report work progress.

TIPS FOR EFFECTIVE COMMUNICATION WITH YOUR SUPERVISOR

1. Before talking to your supervisor, make sure that you are clear about the goal of your conversation, whether it's to request guidance or assistance on something you are working on, or report your progress on a project. It is helpful to write down all the topics you hope to discuss and communicate before the conversation.

2. Choose a preferred method of communication. Some people are more effective communicating via email while some others prefer to have face-to-face time or a quick conversation. Tailor the communication method to the one your supervisor prefers. ☐ Schedule your conversation. Be considerate of your supervisor's time and schedule when you approach him/her. Don't try to communicate or pressure for an answer when he or she is under a deadline or resolving an urgent issue. If your supervisor prefers face-to-face meetings, schedule your conversation ahead of time so that you can prepare accordingly. Try not to wait until the last minute to ask for instructions and/or assistance on projects you are working on.

3. Be concise and straightforward. When speaking with your supervisor, you should concisely introduce your concerns or requests and explain why you are bringing them to his/her attention. It is also important to focus the communication on the issues at hand and how to find solutions to move forward.

4. Practice active listening. During a meeting with your supervisor, you should engage to be an active listener instead of worrying about what you are going to say. Practicing active listening skills will help you understand and anticipate your supervisor's needs and what actions need to be taken. Take notes as needed so that you will remember more of the conversation and action items.

5. Have a positive attitude and be open to feedback. The rule of thumb in effective communication and a successful relationship is to exhibit a positive attitude. It is also crucial to keep an open mind and be receptive to feedback that your supervisor may provide you.

6. Communicate regularly with your supervisor to develop and maintain a successful professional relationship. Establishing an effective communication channel with your supervisor on a regular basis when things are going smoothly will make it easier to approach him/her when a problem arises.

Potential Hazards At Workplace

- Electrical Accident. ...
- Exposure to Dangerous Chemicals. ...
- Machinery & Tools Hazard. ...
- Workplace Harassment. ...
- Fire Accidents. ...
- Workplace Theft. ...
- Workers Existing Health Conditions.

Importance Of Following Organizational Guidelines

When employees follow procedures, they perform tasks correctly and provide consistent customer service. This enhances the quality of your organization's products and services. And, in turn, improves your company's reputation. Employees can know they are fulfilling their roles and take pride in their work

Importance Of Maintaining Personal Safety & Hygiene At The Workplace

Spending more time at work makes us more responsible to follow proper hygiene as there are more people to spread germs and variety of infections. Employees and employers both can contribute towards maintaining good hygiene and sanitation.

Process Of Reporting Grievances and Unethical Conduct Such Data Breach, Sexual Harassment At The Workplace

Sexual harassment is unwelcome conduct of a sexual nature that is persistent or offensive and interferes with an employee's job performance or creates an intimidating, hostile or offensive work environment. Sexual harassment is defined by the federal Equal Employment Opportunity Commission as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature when, for example:

(a) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment,

(b) submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting such individual, or

(c) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive working environment.

Sexual harassment can be physical and psychological in nature. An aggregation of incidents can constitute sexual harassment even if one of the incidents considered on its own would not be harassing.

Examples of prohibited conduct

Though sexual harassment encompasses a wide range of conduct, some examples of specifically prohibited conduct include the following:

- Physical assaults of a sexual nature, such as rape, sexual battery, molestation or attempts to commit these assaults, and intentional physical conduct that is sexual in nature, such as touching, pinching, patting, grabbing, brushing against another employee's body or poking another employee's body.

- Unwelcome sexual advances, propositions or other sexual comments, such as sexually oriented gestures, noises, remarks, jokes, or comments about a person's sexuality or sexual experience.

- Preferential treatment or promises of preferential treatment to an employee for submitting to sexual conduct, including soliciting or attempting to solicit any employee to engage in sexual activity for compensation or reward.

- Subjecting, or threats of subjecting, an employee to unwelcome sexual attention or conduct or intentionally making performance of the employee's job more difficult because of that employee's sex.

- Sexual or discriminatory displays or publications anywhere in [Company Name]'s workplace by the [Company Name] employees.

- Retaliation for sexual harassment complaints.

Responding to Conduct in Violation of Policy

Employees

- If an employee feels that he or she is being subjected to sexual harassment he or she may immediately inform the harasser that the conduct is unwelcome and needs to stop. If the inappropriate conduct does not cease, or if the employee is unable to or uncomfortable with addressing the alleged harasser directly, he or she should report the incident to his or her own supervisor or to the human resource (HR) director. It is helpful, but not required, to provide a written record of the date, time and nature of the incident(s) and the names of any witnesses.

- It is important to report all concerns of sexual harassment or inappropriate sexual conduct to the HR director or a supervisor/manager as soon as possible. Management must be made aware of the situation so that it can conduct an immediate and impartial investigation and take appropriate action to remediate or prevent the prohibited conduct from continuing.

Managers and supervisors

- Managers and supervisors must deal expeditiously and fairly when they have any knowledge of sexual harassment within their departments, whether or not there has been a written or formal complaint. They must:

- Take all complaints or concerns of alleged or possible harassment seriously no matter how minor or who is involved.

- Report all incidents to HR immediately so that a prompt investigation can occur.

- Take any appropriate action to prevent retaliation or prohibited conduct from recurring during and after any investigations or complaints.

- Managers and supervisors who knowingly allow or tolerate sexual harassment or retaliation, including the failure to immediately report such misconduct to HR, are in violation of this policy and subject to discipline.

Human resources

The HR director is responsible for:

- Ensuring that both the individual filing the complaint (complainant) and the accused individual (respondent) are aware of the seriousness of a sexual harassment complaint.

- Explaining [Company Name]'s sexual harassment policy and investigation procedures to all parties involved.

- Exploring informal means of resolving sexual harassment complaints.

- Notifying the police if criminal activities are alleged.

- Arranging for an investigation of the alleged harassment and the preparation of a written report.

- Submitting a written report summarizing the results of the investigation and making recommendations to designated company officials.

- Notifying the complainant and the respondent of the corrective actions to be taken, if any, and administering those actions.

The HR director will determine if an in-house investigation will be conducted or if a third party will be contracted to complete the investigation. All complaints involving senior management at the vice-president level or above will be handled by an external third party.

Complaint Resolution Procedures

Complaints should be submitted as soon as possible after an incident has occurred, preferably in writing. The HR director may assist the complainant in completing a written statement or, in the event an employee refuses to provide information in writing, the HR director will dictate the verbal complaint.

To ensure the prompt and thorough investigation of a sexual harassment complaint, the complainant should provide as much of the following information as is possible:

1. The name, department and position of the person or persons allegedly committing harassment.

2. A description of the incident(s), including the date(s), location(s) and the presence of any witnesses.

3. The effect of the incident(s) on the complainant's ability to perform his or her job, or on other terms or conditions of his or her employment.

4. The names of other individuals who might have been subject to the same or similar harassment.

5. What, if any, steps the complainant has taken to try to stop the harassment.

6. Any other information the complainant believes to be relevant to the harassment complaint.

Discipline

Employees who violate this policy are subject to appropriate discipline. If an investigation results in a finding that this policy has been violated, the mandatory minimum discipline is a written reprimand. The discipline for very serious or repeat violations is termination of employment. Persons who violate this policy may also be subject to civil damages or criminal penalties.

Confidentiality

All complaints and investigations are treated confidentially to the extent possible and information is disclosed strictly on a need-to-know basis. The identity of the complainant is usually revealed to the parties involved during the investigation and the HR director takes adequate steps to ensure that the complainant is protected from retaliation during and after the investigation. All information pertaining to a sexual harassment complaint or investigation is maintained in secure files within the HR department.

Other Available Procedures

The procedures available under this policy do not preempt or supersede any legal procedures or remedies otherwise available to a victim of sexual harassment under local, state or federal law.

Discuss Ways To Create Sensitivity For Different Genders And Persons With Disabilities

A disability is an impairment that can be mental, physical, developmental, cognitive, or emotional. A person can become disabled at birth or over the course of a lifetime. Some disabilities are birth defects, others are revealed as a person ages, and some are caused by accidents and/or other events.

Disability Diversity

Part of the diversity present in today's workforce are disabled workers. However, disabled does not mean someone with a disability is incompetent or unable to do their job. Disabled simply means the disabled person has an impairment. It also doesn't mean that the person lives off entitlement programs or gets any "breaks" that a person who is not disabled can't receive.

There are all types of disabilities covered by the word "disability." It does not mean, as we said, that the person with a disability is unable to work or complete their job as well as anyone else. Just as with race, gender, culture, a disability may mean that someone does things a little differently than you. A person with a hearing disability might need special accommodations related to communication. A person with a physical disability may require a different type of entrance into the place of work, or a desk in a location that accommodates a wheelchair.

As with any other person or group of people we've discussed thus far in this course, people with disabilities should be treated the same as everyone else. They should be treated equally. Understanding your own feelings, beliefs, and values related to disabilities, then understanding theirs, will go a long way toward promoting a harmonious, productive workplace environment.

Common Stereotypes

Stereotypes are common to the disabled. The reason for this is we make assumptions based on the disability instead of the capability of the disabled person. For example, it's a stereotype that people with cerebral palsy have a lowered intelligence level, when the truth is they don't. It's also a stereotype that they are unable to walk and cannot talk. These are both false as well. However, they are stereotypes that people believe, based on misconceptions, past experiences, and the absence of fact.

The same holds true of those with mental illnesses. The common stereotypes are that they're dangerous, unstable, and face periods of hospitalization. These stereotypes are completely wrong and based on the picture some movies in Hollywood give to us of those with mental illness. But think of it this way: Clinical depression is a form of a mental illness. Anxiety issues can be considered a form of mental illness. Stereotyping someone because they suffer from a disability is taking the individual out of the equation and labeling someone as less than you, or others like you, who don't have a disability.

Whenever you see a person with disability, you should presume they are just as competent as you are in the job they've been assigned. Never assume they aren't capable, or that you need to step in and help. Pity is not the same as compassion. Pity stems from stereotypes and biases. Compassion stems from an awareness of the differences in others and a willingness to work as a team to accomplish goals and meet deadlines.

Using the Correct Terminology

Words can be as powerful as any weapon. Just one word that you use can degrade someone, hurt their feelings, insult them, or even imply that you are discriminating against them. It used to be acceptable to refer to a person with a disability by naming their disability. If a woman was blind, you could say, "the blind woman."

However, labeling someone by a disability takes away from their abilities and individuality. Just as you don't want to be labeled by features you're not proud of (perhaps you have a big nose or ears), people with disabilities don't want their disability to be their name tag, so to speak.

In the early 20th century, the word "handicapped" was popular to describe people with disabilities. It didn't matter what type of disability they had. People with disabilities do not like this term applied to them, though. It suggests they have something that holds them back from doing things people without disabilities can do. It suggests they are somehow less than.

It's always best to use first person when referring to, or talking to, anyone. Address the person. Refer to the person. Do not refer to the disability, just the same as you shouldn't refer to the race, economic circumstance, or religion. Whenever possible, refer to a disabled person by their name. If you don't know their name, use a distinguishing feature, such as the color of their shirt, their location (the woman next to the copier), etc.

Disability Etiquette

Your disabled co-workers and employees are not any different than you, in that they are there to earn a living, advance their career, and better the organization through their contributions. You don't have to "baby" someone with a disability, and you don't have to watch what you say out of fear of offending them.

Here is an example:

A colleague has a form of mental illness. One day, you remark to another co-worker that your son is "driving you crazy." Suddenly, you realize the person with a mental illness has heard you, and you quickly apologize.

Relax! There's no need to worry. If you're worried that you offended someone, ask. Sometimes you won't have to ask.The person will politely tell you they find your words offensive. However, you don't have to tip-toe around people with disabilities. They can use the same slang and jargon that everyone else does.

You'll find that you'll be more relaxed if you just see the person – the individual – instead of seeing them as their disability. Maybe they have a great sense of humor. Perhaps they're a sharp dresser. Maybe they're a hard worker. See them for the things they are.They are not defined by their impairment any more than you are defined by the color of your hair. If you are afraid of them, or uncomfortable around them, because of their disability, then do some research to learn more.

Listed below are some other tips for interacting with people with disabilities.

- Treat people with disabilities as you would anyone else. Offer your hand as you would any other co-worker.

- If someone is deaf, maintain eye contact with them, not an interpreter, when you are communicating. They are the person you are talking to, not the interpreter.

- If you think someone needs assistance, you can offer it. The person may accept it or not. Either way is okay. Don't give your assistance without their permission. That is assuming they can't do something on their own. Let them make that call.

- Sometimes people may have impairments that affect the way they speak. If you're having problems understanding what someone says, ask them to repeat what they said. Be honest. Be polite.

- If someone is in a wheelchair, you want to make sure you converse with them at eye level. This may mean pulling up a chair. Don't bend over, kneel, or lean to talk to them. Also, don't lean on the wheelchair as support. If you can't sit down, it's okay to stand. Just look them in the eye.

- If someone has a visual disability, identify yourself and anyone else who is with you. If talking to someone else other than the blind person in a group, make it clear who you are speaking to by addressing them by name.

- Never pat people in wheelchairs on the head or on the shoulders. That is how you would treat kids or pets. Always treat adults as adults.

- To get the attention of a person who has a hearing disability, tap them on the shoulder. Speak slowly and clearly so the person can read your lips. Don't block the view of your mouth. Speak in normal tones. Don't shout.

In today's workplace, you need to be able to effectively communicate with anyone, regardless of their generation. To do that, you must also recognize and respect the differences in the three generations and how they view work, communication, and life -- then be flexible to find an effective middle ground. Most of all, you must be willing to listen and learn.

Intergenerational Communication in the Workplace

Communication is a critical part of being successful in business. But since American organizations have not fully recognized the importance of generational diversity in the workplace and how it affects business, miscommunication exists, instead. This creates discord and becomes harmful to the organization's bottom line.

In short, the three generations in the workplace today are misunderstanding each other. The misunderstandings cause loss of productivity, employee disenchantment.

4. Work effectively, sustainably and safely

Unit 4.1 – Achieve optimum productivity and quality

Unit 4.2 – Implement health and safety procedures

Unit 4.3 – Organise waste management and recycling

Unit 4.4- Conserve resources

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Key Learning Outcomes

1. Learner will be able to maintain good housekeeping in their surroundings.

2. Learner will be able to maintain work quality standards

3. Learner will be able to know about state organizational safety procedure

4. Learner will be able to bifurcate waste product & useful product & disposal of waste product

5. Learner will be able to know about different types of waste & their disposal procedure

6. Learner will be able to know about importance of efficient utilisation of water, electricity and other resources

Importance of Good Housekeeping At Workplace

Effective housekeeping can help control or eliminate workplace hazards. Poor housekeeping practices frequently contribute to incidents. If the sight of paper, debris, clutter and spills is accepted as normal, then other more serious hazards may be taken for granted. Housekeeping is not just cleanliness.

Housekeeping and cleanliness not only make the organization a safer place to work in but also provide a big boost to the image of the organization. These activities also

 (i) improve efficiency and productivity,

(ii)   helps in maintaining good control over the processes, and (iii) assist in maintaining the quality of the product.

IMPORTANT ASPECTS OF HOUSEKEEPING CLEANLINESS

Elements of housekeeping and cleanliness at workplace

The major elements which are normally included in the housekeeping and cleanliness practices at the workplace are described below.

- Dust and dirt removal – Working in a dusty and dirty area is unhygienic as well unhealthy for the employees since there can be respiratory type irritations. Also, if dust and dirt are allowed to accumulate on surfaces, there is a potential for a slip hazard. Hence, regular sweeping the workplace for the removal of dust and dirt is an essential housekeeping and cleanliness practice. Further, compressed air is not to be used for removing dust or dirt off employees or equipment. Compressed air can cause dirt and dust particles to be embedded under the skin or in the eye.

- Employee facilities – Adequate employees' facilities such as drinking water, wash rooms, toilet blocks, and rest rooms etc. are to be provided for the employees at the workplace so that employees can use them when there is a need. Cleanliness at the place of these facilities is an important aspect of the facilities.

- Flooring – Floors are to be cleaned regularly and immediately if liquids or other materials are spilled. Poor floor conditions are a leading cause of accidents in the workplace. Areas such as entranceways which cannot be cleaned continuously are to have mats or some type of anti-slip flooring. It is also important to replace worn, ripped or damaged flooring that poses a trip hazard.

- Lighting – Adequate lighting reduces the potential for accidents. It is to be ensured that inoperative light fixtures are repaired and dirty light fixtures are cleaned regularly so that the light intensity levels are maintained at the workplace.

- Aisles and stairways – Aisles and stairways are to be kept clear and not to be used for storage. Warning signs and mirrors can improve sight lines in blind corners and help prevent accidents. It is also important to maintain adequate lighting in stairways. Further stairways need to have railings preferably round railings for adequate grip.

- Spill control – The best method to control spills is to prevent them from happening. Regular cleaning and maintenance on machines and equipment is an essential practice. Also, the use of drip pans where spills might occur is a good preventative measure. When spills do occur, it is important to clean them up immediately. When cleaning a spill, it is required to use the proper cleaning agents or absorbent materials. It is also to be ensured that the waste products are disposed of properly.

- Waste disposal – The regular collection of the waste materials contribute to good housekeeping and cleanliness practices. It also makes it possible to separate materials that can be recycled from those going to waste disposal facilities. Allowing material to build up on the floor wastes time and energy since additional time is required for cleaning it up. Placing containers for wastes near the place where the waste is produced encourages orderly waste disposal and makes collection easier. All recyclable wastes after their collection are to be transferred to their designated places so that the waste materials can be dispatched to the point of use or sold.

- Tools and equipment – Tools and equipment are required to be inspected prior to their use. Damaged or worn tools are to be taken out of service immediately. Tools are to be cleaned and returned to their storage place after use.

- Maintenance – One of the most important elements of good housekeeping and cleanliness practices is the maintenance of the equipment and the buildings housing them. This means keeping buildings, equipment and machinery in safe and efficient working condition. When a workplace looks neglected then there are broken windows, defective plumbing, broken floor surfaces and dirty walls etc. These conditions can cause accidents and affect work practices. It is important to have a replacement program for replacing or fixing broken and damaged items as quickly as possible.

- Storage – Proper storage of materials is essential in a good housekeeping and cleanliness practice. All storage areas need to be clearly marked. Flammable, combustible, toxic and other hazardous materials are to be stored in approved containers in designated areas which are appropriate for the different hazards that they pose. The stored materials are not to obstruct aisles, stairs, exits, fire equipment, emergency eyewash fountains, emergency showers, or first aid stations. Also it is important that all containers be labelled properly. If materials are being stored correctly, then the incidents of strain injuries, chemical exposures and fires get reduced drastically.

Ways to Achieve Quality Standards

- Clutter control – Cluttered workplaces typically happen because of poor housekeeping practices. This type of workplace can lead to a number of issues which include ergonomic as well as injuries. It is important to develop practices where items like tools, chemicals, cords, and containers are returned to their appropriate storage location when not in use. Clutter is not only unattractive but, in a work area, it is also a serious threat to safety. Danger to the employees increases if the established exit routes and doors are blocked. For this reason, as well as to prevent slips and trips, assorted waste materials need to be disposed of promptly in the appropriate waste containers. Aisles are to be kept clear of obstructions for obvious reasons.

- Individual workspace – Individual workspace need to be kept neat, cleared of everything not needed for work. Many workplace injuries occur right in the employee's workspace. This space is often overlooked when conducting general housekeeping and cleanliness inspections. It is necessary to make a checklist which is to be used by the employees to evaluate their workspace.

What is quality work?

Quality work is the service/task one completes successfully within the estimated time, with the end output satisfying the expectations of everyone involved, including oneself.

Following are some of the ways to produce quality work.

Recognize mistakes and take corrective action

Walk the extra mile

Work with your team

5 tips to Deliver Quality work

Hold yourself to the highest standard

Stay focused and follow your schedule

1. Hold yourself to the highest standard

   Quality work starts from commitment and determination to do the job to the best of your abilities. When you hold yourself to the highest standard, you will get the motivation to compete with yourself and raise the bar. This constant quest for perfection can help you produce quality work consistently. Further, when you make yourself accountable for the quality of your work, you will gain the ability to work unsupervised without the necessity to be guided by someone constantly, which is an essential quality in the post-pandemic world.

2. Walk the extra mile

   You can ensure the quality of the work you do as an individual. But when your work contributes only a part to a bigger task or goal that your team/organization has undertaken, you have to take up additional responsibilities, help your colleagues to do their part better and inspire the team to produce quality work together. When you take up additional tasks and do more work than what is assigned to you, you can improve the overall quality of your team's output.

3. Recognize mistakes and take corrective action

   Quality of work is ensured when you constantly put your work under rigorous scrutiny. Analyzing your own work, identifying mistakes and correcting them at the early stage are important to producing quality work. In contrast, if mistakes remain undetected or swept under the carpet, then they will come back to you and massively impact your productivity.

4 Work with your team

   Team work ensures quality. You cannot meet the organizational goals and targets single-handedly; for that, you need your team. Moreover, at times, you may need some expertise outside your skillset to complete a task; you may need a helping hand to complete a complicated task; or you may even be packed with too much workload that you may need to delegate some of your own work to someone else in order to meet the deadline. So, it is extremely important to develop cohesiveness with your team and motivate them to constantly meet your quality standards. This will help you do quality work and increase productivity.

5. Stay focused and follow your schedule

   You can produce quality work when you stay focused on your work, avoiding distractions and digressions. If you lose focus, then there are more chances of making mistakes. So, you have to focus on the work in hand and stick to your plan and schedule. When you delay your work and do not stick to your plan of the day, you may miss your deadlines. This will reduce the amount of time you have to do your work. When you do not have enough time, the quality of work takes a hit. So, it is crucial to plan the day, make a schedule, stay focused and meet all the deadlines, if you strive to do quality work.

State the organizational safety procedures for maintaining electrical safety (ESD), handling tools and hazardous materials.
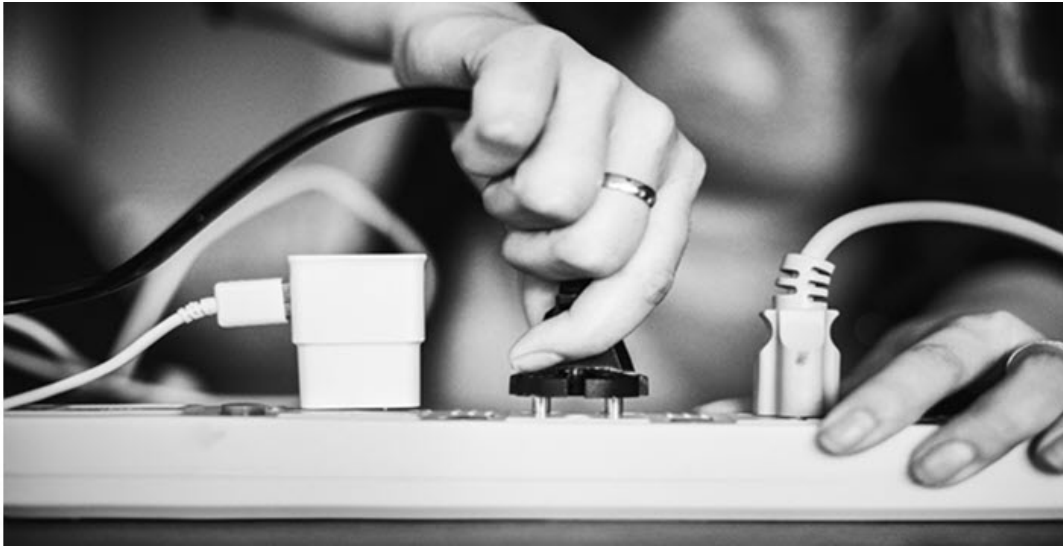
Every workplace today operates on electricity, so workplace electrical injuries are a real threat in any location. All electrical systems used in offices have the potential to cause serious harm, especially if improperly used or maintained.

Humans are good conductors of electricity. This means if the open electric circuit comes in contact with our body, we'll get a shock. The electric current will pass through our body from one point to another causing great pain, burns, damage to the tissues, nerves and muscles. This could even lead to death.

Types of Workplace Electrical Injuries

There are different ways workers can be hurt by electric equipment, which is why electrical safety must be a top focus in every workplace. The four types of injuries that can occur due to electricity are:

- Electric shock
- Burns
- Falls
- Electrocution

Each type of injury can be guarded against with proper planning in the work environment.

How Injuries Can Happen

Often, injuries related to electricity can be prevented. They happen due to improper maintenance or when someone is not following protocol. Teaching staff the different ways these injuries can impact a person can help impart the seriousness of electrical safety in the workplace. There are various ways people can get hurt:

- Direct contact with exposed electrical circuits or energized conductors.

- Electricity arcs (due to exposed energized conductors or circuit) circulating in the air can pass through a person who is grounded.

- If the skin gets in touch with the heat generated from electric arcs, it burns the internal tissues.

- The light emitted from an electric arc flash (UV and IR) can cause damage to the eyes.

- When the potential pressure is released from an arc flash, there is an arc blast, which can collapse your lungs, cause physical injuries, or create noise that can damage hearing.

Proper employee training plays a crucial role in avoiding electrical injuries at work. Make sure rules for electrical safety in the workplace are presented to every new employee during the onboarding process. Revisit the guidance regularly, and make sure managers consistently enforce the rules. Fortunately, most of the electrical hazards can be easily prevented and controlled with a little caution and regular checks, keeping the office safer for everyone.

Common Electrical Hazards

- To see if an environment could become the site of an electricity-related injury, evaluate the status of electrical equipment in the area. Consider the maintenance status of the building's electrical system and the habits of workers. Most injuries are a result of the following:

- Poorly installed, faulty and/or ill-maintained electrical equipment.

- Faulty wiring.

- Overloaded or overheated outlets.

- Use of flexible leads and extension cables.

- Incorrect use of replacement fuses.

- Use of electrical equipment with wet hands or near the source of water.

Tips to Prevent Workplace Electrical Incidents

Create a full list of electrical safety tips and rules for everyone in your office. This guidance should cover a wide range of potential hazards and risks. Start with these rules, and add specific ones that apply to your workplace:

- Unplug or switch off electrical appliances when not in use or while cleaning, repairing or servicing.

- Ensure that all electrical appliances are turned off at the end of the day.

- Don't forcefully plug into an outlet if it doesn't fit.

- Refrain from running electrical cords across doorways, under the carpets, or in areas that witness regular activities.

- Maintain a clearance of at least 3 feet from all electrical panels.

- Use only equipment that is double-insulated and properly grounded.

- Don't overload the outlets.

- Limit the use of personal appliances such as heaters and fans at desks.

- Ensure that two extension cords are not plugged together.

- Only use electrical equipment that is approved by a national testing laboratory. Buy electrical equipment from trusted electrical liquidators who sell good quality electrical surplus materials.

- Pay attention to the warning signs. Equipment may heat up, spark, smoke or make weird noise; Identify the signs and immediately take it out of service.

- Regularly check for defects in cords and equipment. Report immediately if any.

- Place a cover or guard to exposed electrical components or wires.

- While unplugging, grip the plug and pull. Don't pull the cord from a distance.

- Do not use electrical equipment or appliances with wet hands or near water and wet surfaces.

- Clearly identify potential electrical hazards, such as electrical panels, with appropriate safety signs.

Proper employee training plays a crucial role in avoiding electrical injuries at work. Make sure rules for electrical safety in the workplace are presented to every new employee during the onboarding process. Revisit the guidance regularly, and make sure managers consistently enforce the rules. Fortunately, most of the electrical hazards can be easily prevented and controlled with a little caution and regular checks, keeping the office safer for everyone.

Identify Workplace Electrical Hazards

Proper employee training plays a crucial role in avoiding electrical injuries at work. Electrical safety signs and labels provide key information for employees and visitors to help keep everyone safe and prevent workplace electrical injuries.

Add signage in a variety of places in the office to reinforce the concept of electrical safety. Signs should be posted in work areas where electrical equipment is used, as well as social spaces where people gather. The reminders will help people understand the office takes safety seriously at all times.

Different Types of Waste And Their Disposal Procedure

What is waste Management ?

Waste control or waste disposal is all the behaviours and acts necessary to handle the waste from its inception to its final disposal. This involves, but is not limited to, storage, transport, management and recycling of waste along with control and enforcement. It also covers the legislative and regulatory system for waste control, including recycling guidelines, etc."

Types Of Waste management

- Recycling

- Incineration

- Landfill

- Biological Reprocessing

- Animal Feed

1. **Recycling :**

   Recycling makes a huge difference in protecting the environment. Amongst the various types of waste management, recycling means that garbage is not disposed of in landfills or water sources by making usable litter components. Many entities/communities have made it easier to recycle goods by introducing labelling to show whether or not a material is recyclable.

   The great thing about this waste management system is that it has economic and environmental advantages. It saves the government resources needed for waste projects, provides thousands of jobs, and will make a decent deal of money. Only bring recyclable waste to the closest recycling centre to get money from recycling.

2. **Incineration :**

   This type of waste management includes the disposal of waste materials by means of burning. The thermal treatment is another name for this disposal method. You may incinerate on a commercial or human scale and dispose of a broad variety of waste materials. Most countries with limited land consider the incineration process. You may use the power produced by burning waste materials to produce heat, energy or steam. One of the drawbacks of this disposal process is that it can be a source of air pollution

3. **Landfill :**

   It is one of the most popular types of waste management systems in the world. It includes the collection, transportation, disposal and burying of waste in designated property. Many towns are planning deserted and barren areas to cope with waste.

   Authorities are committed to ensuring that the construction of each landfill is successful in terms of sanitation and economic land use. However, landfill sites are a significant cause of health and environmental problems that concern many communities. For instance, gas from these landfills is often incredibly dangerous.

4. **Biological Reprocessing :**

   Chemical waste materials, such as kitchen waste and paper goods, can be reused after a procedure called biological reprocessing which is another popular system amongst the varied types of waste management. Multiple physiological systems, including recycling and biomass gasification, are used in biological reprocessing. Composing is a normal biological mechanism that is carried out under control conditions. One of the ends of the stock is natural gas, which is used to produce heat and electricity. Biological reprocessing is commonly used for the disposal of industrial waste.

5. Animal feed :

   Food waste is a serious issue and needs serious consideration. According to the United States Department of Agriculture, between 30 and 40 percent of all food created by the United States is spent on food by retailers and customers. This is a major problem as the food value is estimated to be $161 billion. The nation is leading the world in terms of food waste, and the cause is self-explanatory. Food can be preserved by manure and livestock feed and this is also one of the ecological types of waste management methods.

Waste disposal process as per the organizational procedures

Waste Management & Disposal

There are three steps necessary to properly manage waste:

- Identify Waste

- Evaluate Waste

- Manage Waste

1. **Identify Waste :**

   First step of waste management is to identify the waste in which we need identify that whether waste is non-hazardous solid waste, recycle waste or hazardous waste

2. **Evaluate Waste :**

   Second step in waste management is Evaluate Waste . Waste may be evaluate by following manner

   - Recyclable material (e.g., paper, soda cans)

   - Compostable organic waste (e.g. food, animal bedding, biodegradable plastics)

   - Non-hazardous solid waste

   - Hazardous radioactive waste: containing or contaminated with a radioactive isotope

   - Hazardous biological waste: containing or contaminated with an infectious or potentially infectious agent, a biological toxin, animal carcasses, genetically modified organisms, recombinant DNA, etc.

   - Hazardous chemical waste: waste chemicals, products which are chemical in nature (cleaning agents, paint, motor oil, and pharmaceutics), products that contain chemicals (fluorescent lamps, thermometers), or materials contaminated with chemicals (contaminated soil or rags)

   - Otherwise, Regulated Material: asbestos, car batteries, contaminated soil, and construction debris

3. **Manage Waste :**

   Once the waste is evaluated it should be managed according to guidelines of Management

Importance Of Efficient Utilisation Of Water, Electricity And Other Resources

Water use efficiency, the ratio of yield to water used to raise crop also indicates that **India uses 2-3 times more water than China, Brazil and the US to produce one unit of food crop**. This clearly shows that India spends more water for irrigation and that could also be very well reduced as like other countries.
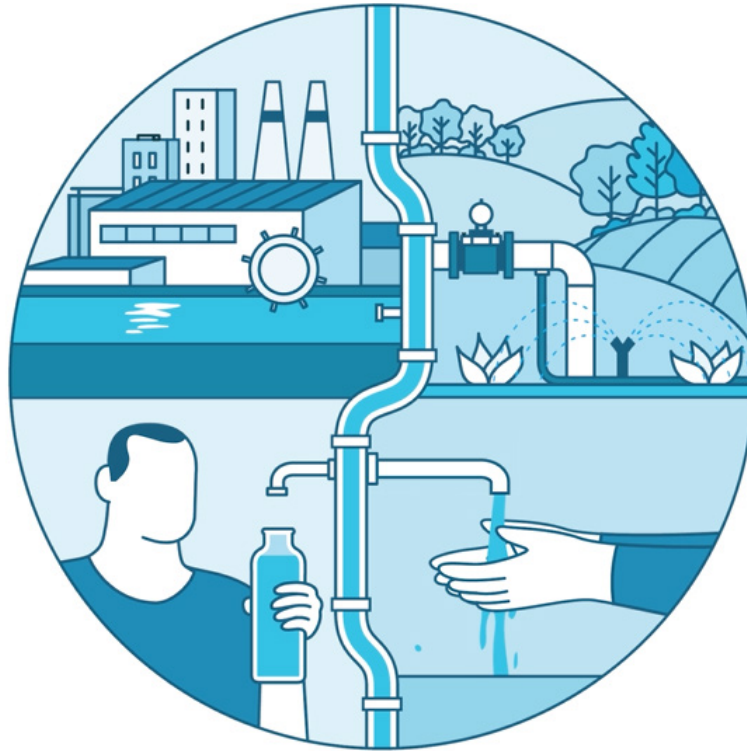
Use these 6 steps to analyse water efficiency and reduce water use in your workplace:

1. get management on side

2. collect information

3. list end uses

4. assess water uses

5. identify and implement water saving ideas

6. review and report.

The following areas are common to small and large enterprises and are the easiest places to start making water and cost savings.

Make your staff water wise

- Talk to staff about your water savings initiatives. Include water savings policies and procedures in staff inductions.

- Encourage staff to contribute to water saving ideas.

- Discuss water efficiency at team meetings and provide regular reports on water use figures.

- Appoint a 'water champion' to check meters and monitor water use.

- Establish a baseline for water use and set achievable targets for saving water.

Taps

- Install water-efficient taps with an aerator or flow restrictor to use less water.

- Install lever or mixer taps, these save water by quickly reaching a desired temperature.

- Fix leaking taps and replace washers - even a slowly dripping tap can waste 10,000 litres of water over a year.

- Avoid washing up under running taps.

Dishwashers

- Install water-efficient dishwashers to use 50% less water than average models.

- Wait until you have a full load before washing.

- Scrape, rather than rinse, dishes prior to washing.

Toilets

- Replace single-flush toilets with dual-flush toilets.

- Regularly check for leaks and fix immediately.

- Install water-efficient urinals with smart controls to reduce unnecessary flushing.

Showers

- Encourage staff and customers to limit showers to 4 minutes or less.

- Install water-efficient shower heads, which can use up to 40% less water.

- Fix leaking showers.

Air conditioning

- If you use evaporative air conditioners, set your thermostat to 24°C.

- Where possible, use fans and natural ventilation.

- Switch off heating and cooling after hours.

Gardens

- Install rainwater tanks.

- Use drought-tolerant plants.

- Use mulch to keep moisture in the soil.

- Water plants early in the morning or in the evening.

Water-efficient products

You can cut water consumption by using white goods with a high water-efficiency rating

5. Employability & Entrepreneurship Skills

Unit 5.1 – Personal Strengths & Value Systems

Unit 5.2 – Digital Literacy: A Recap

Unit 5.3 – Money Matters

Unit 5.4 – Preparing for Employment & Self-Employment

Unit 5.5 – Understanding Entrepreneurship

Unit 5.6 – Preparing to be an Entrepreneur

Key Learning Outcomes

At the end of this module, you will be able to:

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Discuss the purpose of Swacch Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Discuss motivation with the help of Maslow's Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
14. Discuss the role of attitude in self-analysis
15. Discuss how to maintain a positive attitude
16. List your strengths and weaknesses
17. Discuss the qualities of honest people
18. Describe the importance of honesty in entrepreneurs
19. Discuss the elements of a strong work ethic
20. Discuss how to foster a good work ethic
21. List the characteristics of highly creative people
22. List the characteristics of highly innovative people
23. Discuss the benefits of time management
24. List the traits of effective time managers
25. Describe effective time management technique
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management
32. Identify the basic parts of a computer
33. Identify the basic parts of a keyboard
34. Recall basic computer terminology
35. Recall the functions of basic computer keys
36. Discuss the main applications of MS Office
37. Discuss the benefits of Microsoft Outlook
38. Discuss the different types of e-commerce
39. List the benefits of e-commerce for retailers and customers
40. Discuss how the Digital India campaign will help boost e-commerce in India
41. Describe how you will sell a product or service on an e-commerce platform
42. Discuss the importance of saving money

43. Discuss the benefits of saving money
44. Discuss the main types of bank accounts
45. Describe the process of opening a bank account
46. Differentiate between fixed and variable costs
47. Describe the main types of investment options
48. Describe the different types of insurance products
49. Describe the different types of taxes
50. Discuss the uses of online banking
51. Discuss the main types of electronic funds transfers
52. Discuss the steps to prepare for an interview
53. Discuss the steps to create an effective Resume
54. Discuss the most frequently asked interview questions
55. Discuss how to answer the most frequently asked interview questions
56. Discuss basic workplace terminology
57. Discuss the concept of entrepreneurship
58. Discuss the importance of entrepreneurship
59. Describe the characteristics of an entrepreneur
60. Describe the different types of enterprises
61. List the qualities of an effective leader
62. Discuss the benefits of effective leadership
63. List the traits of an effective team
64. Discuss the importance of listening effectively
65. Discuss how to listen effectively
66. Discuss the importance of speaking effectively
67. Discuss how to speak effectively
68. Discuss how to solve problems
69. List important problem solving traits
70. Discuss ways to assess problem solving skills
71. Discuss the importance of negotiation
72. Discuss how to negotiate
73. Discuss how to identify new business opportunities
74. Discuss how to identify business opportunities within your business
75. Explain the meaning of entrepreneur
76. Describe the different types of entrepreneurs
77. List the characteristics of entrepreneurs
78. Recall entrepreneur success stories
79. Discuss the entrepreneurial process
80. Describe the entrepreneurship ecosystem
81. Discuss the purpose of the Make in India campaign
82. Discuss key schemes to promote entrepreneurs
83. Discuss the relationship between entrepreneurship and risk appetite
84. Discuss the relationship between entrepreneurship and resilience
85. Describe the characteristics of a resilient entrepreneur
86. Discuss how to deal with failure

87. Discuss how market research is carried out
88. Describe the 4 Ps of marketing
89. Discuss the importance of idea generation
90. Recall basic business terminology
91. Discuss the need for CRM
92. Discuss the benefits of CRM
93. Discuss the need for networking
94. Discuss the benefits of networking
95. Discuss the importance of setting goals
96. Differentiate between short-term, medium-term and long-term goals
97. Discuss how to write a business plan
98. Explain the financial planning process
99. Discuss ways to manage your risk
100. Describe the procedure and formalities for applying for bank finance
101. Discuss how to manage your own enterprise
102. List important questions that every entrepreneur should ask before starting an enterprise

UNIT 5.1: Personal Strengths & Value Systems

Unit Objectives

At the end of this unit, participant will be able to:

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Discuss the purpose of Swacch Bharat Abhiyan
6. Explain the meaning of habit
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8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Discuss motivation with the help of Maslow's Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
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25. Describe effective time management technique
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management

5.1.1 Health, Habits, Hygiene: What is Health?

As per the World Health Organization (WHO), health is a "State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." This means being healthy does not simply mean not being unhealthy – it also means you need to be at peace emotionally, and feel fit physically. For example, you cannot say you are healthy simply because you do not have any physical ailments like a cold or cough.

You also need to think about whether you are feeling calm, relaxed and happy.

Common Health Issues

Some common health issues are:

- Allergies
- Asthma
- Skin Disorders
- Depression and Anxiety
- Diabetes
- Cough, Cold, Sore Throat
- Difficulty Sleeping
- Obesity

Prevent Health Issues

Taking measures to prevent ill health is always better than curing a disease or sickness. You can stay healthy by:

- Eating healthy foods like fruits, vegetables and nuts
- Cutting back on unhealthy and sugary foods
- Drinking enough water everyday
- Not smoking or drinking alcohol
- Exercising for at least 30 minutes a day, 4-5 times a week
- Taking vaccinations when required
- Practicing yoga exercises and meditation

How many of these health standards do you follow? Tick the ones that apply to you.

1. Get minimum 7-8 hours of sleep every night. ☐

2. Avoid checking email first thing in the morning and right before you go to bed at night. ☐

3. Don't skip meals – eat regular meals at correct meal times. ☐

4. Read a little bit every single day. ☐

5. Eat more home cooked food than junk food. ☐

6. Stand more than you sit. ☐

7. Drink a glass of water first thing in the morning and have at least 8 glasses of water through the day. ☐

8. Go to the doctor and dentist for regular check-ups. ☐

9. Exercise for 30 minutes at least 5 days a week.

10. Avoid consuming lots of aerated beverages. ☐

What is Hygiene?

As per the World Health Organization (WHO), "Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases." In other words, hygiene means ensuring that you do whatever is required to keep your surroundings clean, so that you reduce the chances of spreading germs and diseases.

For instance, think about the kitchen in your home. Good hygiene means ensuring that the kitchen is always spick and span, the food is put away, dishes are washed and dustbins are not overflowing with garbage. Doing all this will reduce the chances of attracting pests like rats or cockroaches, and prevent the growth of fungus and other bacteria, which could spread disease.

How many of these health standards do you follow? Tick the ones that apply to you.

1. Have a bath or shower every day with soap – and wash your hair with shampoo 2-3 times a week. ☐

2. Wear a fresh pair of clean undergarments every day. ☐

3. Brush your teeth in the morning and before going to bed. ☐

4. Cut your fingernails and toenails regularly. ☐

5. Wash your hands with soap after going to the toilet. ☐

6. Use an anti-perspirant deodorant on your underarms if you sweat a lot. ☐

7. Wash your hands with soap before cooking or eating. ☐

8. Stay home when you are sick, so other people don't catch what you have. ☐

9. Wash dirty clothes with laundry soap before wearing them again. ☐

10. Cover your nose with a tissue/your hand when coughing or sneezing. ☐

See how healthy and hygienic you are, by giving yourself 1 point for every ticked statement! Then take a look at what your score means.

Your Score

0-7/20: You need to work a lot harder to stay fit and fine! Make it a point to practice good habits daily and see how much better you feel!

7-14/20: Not bad, but there is scope for improvement! Try and add a few more good habits to your daily routine.

14-20/20: Great job! Keep up the good work! Your body and mind thank you!

We have already discussed the importance of following good hygiene and health practices for ourselves. But, it is not enough for us to be healthy and hygienic. We must also extend this standard to our homes, our immediate surroundings and to our country as a whole.

Swachh Bharat Abhiyan

The 'Swachh Bharat Abhiyan' (Clean India Mission) launched by Prime Minister Shri Narendra Modi on 2nd October 2014, believes in doing exactly this. The aim of this mission is to clean the streets and roads of India and raise the overall level of cleanliness. Currently this mission covers 4,041 cities and towns across the country. Millions of our people have taken the pledge for a clean India. You should take the pledge too, and do everything possible to keep our country clean!

What are Habits?

A habit is a behaviour that is repeated frequently. All of us have good habits and bad habits. Keep in mind the phrase by John Dryden: "We first make our habits, and then our habits make us." This is why it is so important that you make good habits a way of life, and consciously avoid practicing bad habits.

Some good habits that you should make part of your daily routine are:

- Always having a positive attitude
- Smiling! Make it a habit to smile as often as possible
- Making exercise a part of your daily routine
- Making time for family and friends
- Reading motivational and inspirational stories
- Going to bed early and waking up early

Some bad habits that you should quit immediately are:

- Skipping breakfast
- Smoking, drinking alcohol and doing drugs
- Snacking frequently even when you are not hungry
- Spending more money than you can afford
- Eating too much fattening and sugary food
- Worrying about unimportant issues
- Staying up late and waking up late

Tips

- Following healthy and hygienic practices every day will make you feel good mentally and physically.
- Hygiene is two-thirds of health – so good hygiene will help you stay strong and healthy

5.1.2: Safety: Tips to Design a Safe Workplace

Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Use ergonomically designed furniture and equipment to avoid stooping and twisting
- Provide mechanical aids to avoid lifting or carrying heavy objects
- Have protective equipment on hand for hazardous jobs
- Designate emergency exits and ensure they are easily accessible
- Set down health codes and ensure they are implemented
- Follow the practice of regular safety inspections in and around the workplace
- Ensure regular building inspections are conducted
- Get expert advice on workplace safety and follow it

Non-Negotiable Employee Safety Habits

Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Immediately report unsafe conditions to a supervisor
- Recognize and report safety hazards that could lead to slips, trips and falls
- Report all injuries and accidents to a supervisor
- Wear the correct protective equipment when required
- Learn how to correctly use equipment provided for safety purposes
- Be aware of and avoid actions that could endanger other people
- Take rest breaks during the day and some time off from work during the week

Tips

- Be aware of what emergency number to call at the time of a workplace emergency
- Practice evacuation drills regularly to avoid chaotic evacuati

5.1.3 Self-Analysis – Attitude, Achievement Motivation

To truly achieve your full potential, you need to take a deep look inside yourself and find out what kind of person you really are. This attempt to understand your personality is known as self-analysis. Assessing yourself in this manner will help you grow, and will also help you to identify areas within yourself that need to be further developed, changed or eliminated. You can better understand yourself by taking a deep look at what motivates you, what your attitude is like, and what your strengths and weaknesses are.

What is Motivation?

Very simply put, motivation is your reason for acting or behaving in a certain manner. It is important to understand that not everyone is motivated by the same desires – people are motivated by many, many different things. We can understand this better by looking at Maslow's Hierarchy of Needs.

Maslow's Hierarchy of Needs

Famous American psychologist Abraham Maslow wanted to understand what motivates people. He believed that people have five types of needs, ranging from very basic needs (called physiological needs) to more important needs that are required for self-growth (called self-actualization needs). Between the physiological and self-actualization needs are three other needs – safety needs, belongingness and love needs, and esteem needs. These needs are usually shown as a pyramid with five levels and are known as Maslow's Hierarchy of Needs.
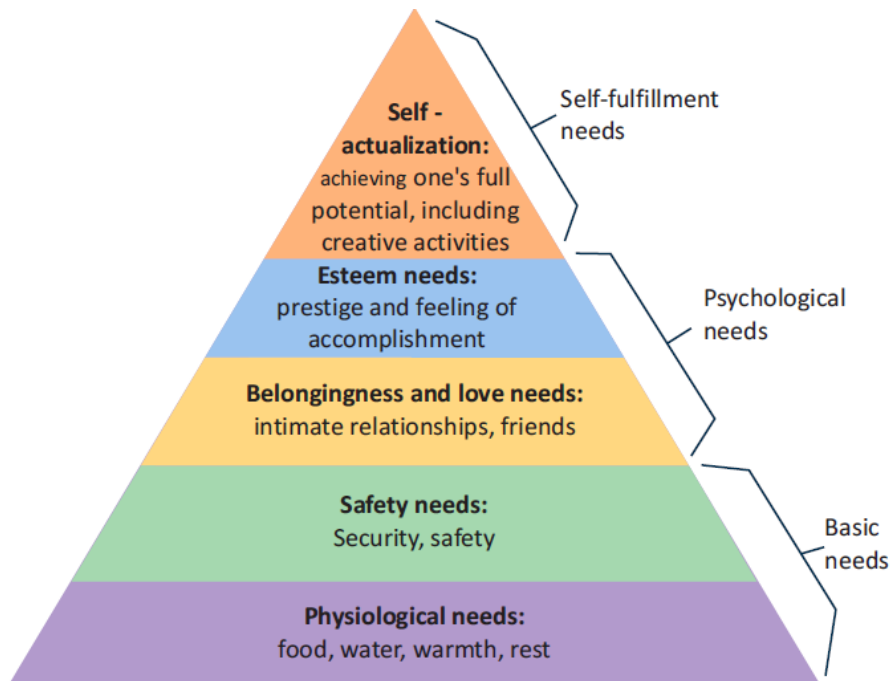
Fig. 5.1.1: Maslow's Hierarchy of Needs

As you can see from the pyramid, the lowest level depicts the most basic needs. Maslow believed that our behaviour is motivated by our basic needs, until those needs are met. Once they are fulfilled, we move to the next level and are motived by the next level of needs. Let's understand this better with an example.

Rupa comes from a very poor family. She never has enough food, water, warmth or rest. According to Maslow, until Rupa is sure that she will get these basic needs, she will not even think about the next level of needs – her safety needs. But, once Rupa is confident that her basic needs will be met, she will move to the next level, and her behaviour will then be motivated by her need for security and safety. Once these new needs are met, Rupa will once again move to the next level, and be motivated by her need for relationships and friends. Once this need is satisfied, Rupa will then focus on the fourth level of needs – her esteem needs, after which she will move up to the fifth and last level of needs – the desire to achieve her full potential.

Understanding Achievement Motivation

We now know that people are motivated by basic, psychological and self-fulfilment needs. However, certain people are also motivated by the achievement of highly challenging accomplishments. This is known as Achievement Motivation, or 'need for achievement'.

The level of motivation achievement in a person differs from individual to individual. It is important that entrepreneurs have a high level of achievement motivation – a deep desire to accomplish something important and unique. It is equally important that they hire people who are also highly motivated by challenges and success.

What Motivates You?

What are the things that really motivate you? List down five things that really motivate you. Remember to answer honestly!

I am motivated by:

_____

_____

_____

_____

Characteristics of Entrepreneurs with Achievement Motivation

Entrepreneurs with achievement motivation can be described as follows:

- Unafraid to take risks for personal accomplishment
- Very persistent when it comes to achieving goals

- Love being challenged
- Extremely courageous

- Future-oriented
- Highly creative and innovative

- Flexible and adaptive
- Restless - constantly looking to achieve more

- Value negative feedback more than positive feedback
- Feel personally responsible for solving problems

Think about it:

- How many of these traits do you have?
- Can you think of entrepreneurs who display these traits?

What is Attitude?

Now that we understand why motivation is so important for self-analysis, let's look at the role our attitude plays in better understanding ourselves. Attitude can be described as your tendency (positive or negative), to think and feel about someone or something. Attitude is the foundation for success in every aspect of life. Our attitude can be our best friend or our worst enemy. In other words:

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tendency (positive or negative), to think and feel about someone or something. Attitude is the foundation for success in every aspect of life. Our attitude can be our best friend or our worst enemy. In other words:

"The only disability in life is a bad attitude."

When you start a business, you are sure to encounter a wide variety of emotions, from difficult times and failures to good times and successes. Your attitude is what will see you through the tough times and guide you towards success. Attitude is also infectious. It affects everyone around you, from your customers to your employees to your investors. A positive attitude helps build confidence in the workplace while a negative attitude is likely to result in the demotivation of your people.

How to Cultivate a Positive Attitude?

The good news is attitude is a choice. So, it is possible to improve, control and change our attitude, if we decide we want to!

The following tips help foster a positive mindset:

- Remember that you control your attitude, not the other way around
- Devote at least 15 minutes a day towards reading, watching or listening to something positive
- Avoid negative people who only complain and stop complaining yourself
- Expand your vocabulary with positive words and delete negative phrases from your mind
- Be appreciative and focus on what's good in yourself, in your life, and in others
- Stop thinking of yourself as a victim and start being proactive
- Imagine yourself succeeding and achieving your goals

What Are Your Strengths and Weaknesses?

Another way to analyse yourself is by honestly identifying your strengths and weaknesses. This will help you use your strengths to your best advantage and reduce your weaknesses.

Note down all your strengths and weaknesses in the two columns below. Remember to be honest with yourself!

Strengths	Weaknesses

Tips

- Achievement motivation can be learned.
- Don't be afraid to make mistakes.
- Train yourself to finish what you start.
- Dream big.

5.1.4 Honesty & Work Ethics: What is Honesty?

Honesty is the quality of being fair and truthful. It means speaking and acting in a manner that inspires trust. A person who is described as honest is seen as truthful and sincere, and as someone who isn't deceitful or devious and doesn't steal or cheat. There are two dimensions of honesty – one is honesty in communication and the other is honesty in conduct.

Honesty is an extremely important trait because it results in peace of mind and builds relationships that are based on trust. Being dishonest, on the other hand, results in anxiety and leads to relationships full of distrust and conflict.

Qualities of Honest People

Honest individuals have certain distinct characteristics. Some common qualities among honest people are:

1. They don't worry about what others think of them. They believe in being themselves – they don't bother about whether they are liked or disliked for their personalities.
2. They stand up for their beliefs. They won't think twice about giving their honest opinion, even if they are aware that their point of view lies with the minority.
3. They are think skinned. This means they are not affected by others judging them harshly for their honest opinions.
4. They forge trusting, meaningful and healthy friendships. Honest people usually surround themselves with honest friends. They have faith that their friends will be truthful and upfront with them at all times.
5. They are trusted by their peers. They are seen as people who can be counted on for truthful and objective feedback and advice.

Importance of Honesty in Entrepreneurs

One of the most important characteristics of entrepreneurs is honesty. When entrepreneurs are honest with their customers, employees and investors, it shows that they respect those that they work with. It is also important that entrepreneurs remain honest with themselves.

Let's look at how being honest would lead to great benefits for entrepreneurs.

- **Honesty and customers:** When entrepreneurs are honest with their customers it leads to stronger relationships, which in turn results in business growth and a stronger customer network.
- **Honesty and employees:** When entrepreneurs build honest relationships with their employees, it leads to more transparency in the workplace, which results in higher work performance and better results.
- **Honesty and investors:** For entrepreneurs, being honest with investors means not only sharing strengths but also candidly disclosing current and potential weaknesses, problem areas and solution strategies. Keep in mind that investors have a lot of experience with start-ups and are aware that all new companies have problems. Claiming that everything is perfectly fine and running smoothly is a red flag for most investors.
- **Honesty with oneself:** The consequences of being dishonest with oneself can lead to dire results, especially in the case of entrepreneurs. For entrepreneurs to succeed, it is

critical that they remain realistic about their situation at all times, and accurately judge every aspect of their enterprise for what it truly is.

What are Work Ethics?

Being ethical in the workplace means displaying values like honesty, integrity and respect in all your decisions and communications. It means not displaying negative qualities like lying, eating and stealing.

Workplace ethics play a big role in the profitability of a company. It is as crucial to an enterprise as high morale and teamwork. This is why most companies lay down specific workplace ethic guidelines that must compulsorily be followed by their employees.

These guidelines are typically outlined in a company's employee handbook.

Elements of a Strong Work Ethic

An entrepreneur must display strong work ethics, as well as hire only those individuals who believe in and display the same level of ethical behaviour in the workplace. Some elements of a strong work ethic are:

- **Professionalism**: This involves everything from how you present yourself in a corporate setting to the manner in which you treat others in the workplace.
- **Respectfulness**: This means remaining poised and diplomatic regardless of how stressful or volatile a situation is.
- **Dependability**: This means always keeping your word, whether it's arriving on time for a meeting or delivering work on time.
- **Dedication**: This means refusing to quit until the designated work is done, and completing the work at the highest possible level of excellence.
- **Determination**: This means embracing obstacles as challenges rather than letting them stop you, and pushing ahead with purpose and resilience to get the desired results.
- **Accountability**: This means taking responsibility for your actions and the consequences of your actions, and not making excuses for your mistakes.
- **Humility**: This means acknowledging everyone's efforts and had work, and sharing the credit for accomplishments.

How to Foster a Good Work Ethic?

As an entrepreneur, it is important that you clearly define the kind of behaviour that you expect from each and every team member in the workplace. You should make it clear that you expect employees to display positive work ethics like:

- **Honesty**: All work assigned to a person should be done with complete honesty, without any deceit or lies.
- **Good attitude**: All team members should be optimistic, energetic, and positive.
- **Reliability**: Employees should show up where they are supposed to be, when they are supposed to be there.
- **Good work habits**: Employees should always be well groomed, never use inappropriate language, conduct themselves professionally at all times and so on.
- **Initiative**: Doing the bare minimum is not enough. Every team member needs to be proactive and show initiative.

- **Trustworthiness**: Trust is non-negotiable. If an employee cannot be trusted, it's time to let that employee go.
- **Respect**: Employees need to respect the company, the law, their work, their colleagues and themselves.
- **Integrity**: Each and every team member should be completely ethical and must display above board behaviour at all times.
- **Efficiency**: Efficient employees help a company grow while inefficient employees result in a waste of time and resources.

Tips

- Don't get angry when someone tells you the truth and you don't like what you hear.
- Always be willing to accept responsibility for your mistakes.

5.1.5 Creativity & Innovation: What is Creativity?

Creativity means thinking outside the box. It means viewing things in new ways or from different perspectives, and then converting these ideas into reality. Creativity involves two parts: thinking and producing. Simply having an idea makes you imaginative, not creative. However, having an idea and acting on it makes you creative.

Characteristics of Highly Creative People

Some characteristics of creative people are:

- They are imaginative and playful
- They see issues from different angles
- They notice small details
- They have very little tolerance for boredom

- They detest rules and routine
- They love to daydream
- They are very curious

What is Innovation?

There are many different definitions of innovation. In simple terms, innovation means turning an idea into a solution that adds value. It can also mean adding value by

implementing a new product, service or process, or significantly improving on an existing product, service or process.

Characteristics of Highly Innovative People

Some characteristics of highly innovative people are:

- They embrace doing things differently
- They don't believe in taking shortcuts
- They are not afraid to be unconventional

- They are highly proactive and persistent
- They are organized, cautious and risk-averse

Tips

- Take regular breaks from your creative work to recharge yourself and gain fresh perspective.
- Build prototypes frequently, test them out, get feedback, and make the required changes.

5.1.6 Time Management: What is Time Management?

Time management is the process organizing your time, and deciding how to allocate your time between different activities. Good time management is the difference between working smart (getting more done in less time) and working hard (working for more time to get more done).

Effective time management leads to an efficient work output, even when you are faced with tight deadlines and high pressure situations. On the other hand, not managing your time effectively results in inefficient output and increases stress and anxiety.

Benefits of Time Management

Time management can lead to huge benefits like:

- Greater productivity
- Better professional reputation
- Higher chances for career advancement

- Higher efficiency
- Reduced stress
- Greater opportunities to achieve goals

Not managing time effectively can result in undesirable consequences like:

- Missing deadlines
- Substandard work quality
- Stalled career

- Inefficient work output
- Poor professional reputation
- Increase in stress and anxiety

Traits of Effective Time Managers

Some traits of effective time managers are:

- They begin projects early
- They set daily objectives
- They modify plans if required, to achieve better results
- They are flexible and open-minded
- They inform people in advance if their help will be required
- They know how to say no

- They break tasks into steps with specific deadlines
- They continually review long term goals
- They think of alternate solutions if and when required
- They ask for help when required
- They create backup plans

Effective Time Management Techniques

You can manage your time better by putting into practice certain time management techniques. Some helpful tips are:
- Plan out your day as well as plan for interruptions. Give yourself at least 30 minutes to figure out your time plan. In your plan, schedule some time for interruptions.
- Put up a "Do Not Disturb" sign when you absolutely have to complete a certain amount of work.

- Close your mind to all distractions. Train yourself to ignore ringing phones, don't reply to chat messages and disconnect from social media sites.
- Delegate your work. This will not only help your work get done faster, but will also show you the unique skills and abilities of those around you.
- Stop procrastinating. Remind yourself that procrastination typically arises due to the fear of failure or the belief that you cannot do things as perfectly as you wish to do them.
- Prioritize. List each task to be completed in order of its urgency or importance level. Then focus on completing each task, one by one.
- Maintain a log of your work activities. Analyse the log to help you understand how efficient you are, and how much time is wasted every day.
- Create time management goals to reduce time wastage.

Tips

- Always complete the most important tasks first.
- Set a time limit for every task that you will undertake.
- Get at least 7 – 8 hours of sleep every day.
- Give yourself some time to unwind between tasks.
- Start your day early.
- Don't waste too much time on small, unimportant details.

5.1.7 Anger Management: What is Anger Management?

Anger management is the process of:

1. Learning to recognize the signs that you, or someone else, is becoming angry

2. Taking the best course of action to calm down the situation in a positive way

Anger management does not mean suppressing anger.

Importance of Anger Management

Anger is a perfectly normal human emotion. In fact, when managed the right way, anger can be considered a healthy emotion. However, if it is not kept in check, anger can make us act inappropriately and can lead to us saying or doing things that we will likely later regret. Extreme anger can:

- **Hurt you physically**: It leads to heart disease, diabetes, a weakened immune system, insomnia, and high blood pressure.
- **Hurt you mentally**: It can cloud your thinking and lead to stress, depression and mental health issues.
- **Hurt your career**: It can result in alienating your colleagues, bosses, clients and lead to the loss of respect.
- **Hurt your relationships**: It makes it hard for your family and friends to trust you, be honest with you and feel comfortable around you.

This is why anger management, or managing anger appropriately, is so important.

Anger Management Strategies

Here are some strategies that can help you control your anger:

Strategy 1: Relaxation

Something as simple as breathing deeply and looking at relaxing images works wonders in calming down angry feelings.

Try this simple breathing exercise:

1. Take a deep breath from your diaphragm (don't breathe from your chest)
2. Visualize your breath coming up from your stomach
3. Keep repeating a calming word like 'relax' or 'take it easy' (remember to keep breathing
4. deeply while repeating the word)
5. Picture a relaxing moment (this can be from your memory or your imagination)
6. Follow this relaxation technique daily, especially when you realize that you're starting to feel angry.

Strategy 2: Cognitive Restructuring

Cognitive restructuring means changing the manner in which you think. Anger can make you curse, swear, exaggerate and act very dramatically. When this happens, force yourself to replace your angry thoughts with more logical ones. For instance, instead of thinking 'Everything is ruined' change your mindset and tell yourself 'It's not the end of the world and getting angry won't solve this'.

Strategy 3: Problem Solving

Getting angry about a problem that you cannot control is a perfectly natural response. Sometimes, try as you may, there may not be a solution to the difficulty you are faced with. In such cases, stop focusing on solving the problem, and instead focus on handling and facing the problem. Remind yourself that you will do your best to deal with the situation, but that you will not blame yourself if you don't get the solution you desire.

Strategy 4: Better Communication

When you're angry, it is very easy to jump to inaccurate conclusions. In this case, you need to force yourself to stop reacting, and think carefully about what you want to say, before saying it. Avoid saying the first thing that enters your head. Force yourself to listen carefully to what the other person is saying. Then think about the conversation before responding.

Strategy 5: Changing Your Environment

If you find that your environment is the cause of your anger, try and give yourself a break from your surroundings. Make an active decision to schedule some personal time for yourself, especially on days that are very hectic and stressful. Having even a brief amount of quiet or alone time is sure to help calm you down.

Tips for Anger Management

The following tips will help you keep your anger in check:

- Take some time to collect your thoughts before you speak out in anger.
- Express the reason for your anger in an assertive, but non-confrontational manner once you have calmed down.
- Do some form of physical exercise like running or walking briskly when you feel yourself getting angry.
- Make short breaks part of your daily routine, especially during days that are stressful.
- Focus on how to solve a problem that's making you angry, rather than focusing on the fact that the problem is making you angry.

Tips

- Try to forgive those who anger you, rather than hold a grudge against them.
- Avoid using sarcasm and hurling insults. Instead, try and explain the reason for your frustration in a polite and mature manner.

5.1.8 Stress Management: What is Stress?

We say we are 'stressed' when we feel overloaded and unsure of our ability to deal with the pressures placed on us. Anything that challenges or threatens our well-being can be defined as a stress. It is important to note that stress can be good and bad. While good stress keeps us going, negative stress undermines our mental and physical health. This is why it is so important to manage negative stress effectively.

Causes of Stress

Stress can be caused by internal and external factors.

Internal causes of stress

- Constant worry
- Rigid thinking
- Unrealistic expectations
- Pessimism
- Negative self-talk
- All in or all out attitude

External causes of stress

- Major life changes
- Difficulties with relationships
- Having too much to do
- Difficulties at work or in school
- Financial difficulties
- Worrying about one's children and/or family

Symptoms of Stress

Stress can manifest itself in numerous ways. Take a look at the cognitive, emotional, physical and behavioural symptoms of stress.

Cognitive Symptoms

- Memory problems
- Concentration issues
- Lack of judgement
- Pessimism
- Anxiety
- Constant worrying

Emotional Symptoms

- Depression
- Agitation
- Irritability
- Loneliness
- Anxiety
- Anger

Physical Symptoms

- Aches and pain
- Diarrhoea or constipation
- Nausea
- Dizziness
- Chest pain and/or rapid heartbeat
- Frequent cold or flu like feelings

Behavioural Symptoms

- Increase or decrease in appetite
- Over sleeping or not sleeping enough
- Withdrawing socially
- Ignoring responsibilities
- Consumption of alcohol or cigarettes
- Nervous habits like nail biting and pacing

Tips to Manage Stress

The following tips can help you manage your stress better:

- Note down the different ways in which you can handle the various sources of your stress.
- Remember that you cannot control everything, but you can control how you respond.
- Discuss your feelings, opinions and beliefs rather than reacting angrily, defensively or passively.
- Practice relaxation techniques like meditation, yoga or tai chi when you start feeling stressed.
- Devote a part of your day towards exercise.
- Eat healthy foods like fruits and vegetables. Avoid unhealthy foods especially those containing large amounts of sugar.
- Plan your day so that you can manage your time better, with less stress.
- Say no to people and things when required.
- Schedule time to pursue your hobbies and interests.
- Ensure you get at least 7-8 hours of sleep.
- Reduce your caffeine intake.
- Increase the time spent with family and friends.

Tips

- Force yourself to smile even if you feel stressed. Smiling makes us feel relaxed and happy.
- Stop yourself from feeling and thinking like a victim. Change your attitude and focus on being proactive.

UNIT 5.2: Digital Literacy: A Recap

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Identify the basic parts of a computer
2. Identify the basic parts of a keyboard
3. Recall basic computer terminology
4. Recall the functions of basic computer keys
5. Discuss the main applications of MS Office
6. Discuss the benefits of Microsoft Outlook
7. Discuss the different types of e-commerce
8. List the benefits of e-commerce for retailers and customers
9. Discuss how the Digital India campaign will help boost e-commerce in India

5.2.1 Computer and Internet basics: Basic Parts of a Computer
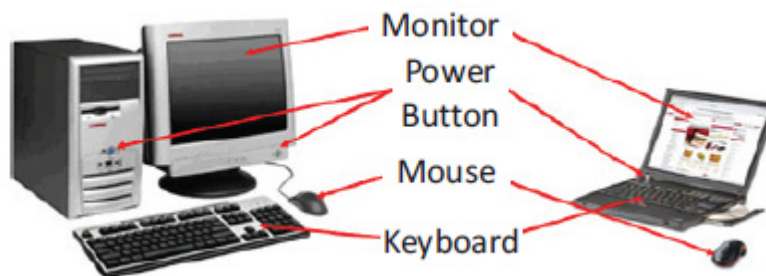
Fig.7.2.1. Parts of a Computer

- **Central Processing Unit (CPU)**: The brain of the computer. It interprets and carries out program instructions.
- **Hard Drive**: A device that stores large amounts of data.
- **Monitor**: The device that contains the computer screen where the information is visually displayed.
- **Mouse**: A hand-held device used to point to items on the monitor.
- **Speakers**: Devices that enable you to hear sound from the computer.
- **Printer**: A device that converts output from a computer into printed paper documents.

Basic Parts of a Keyboard
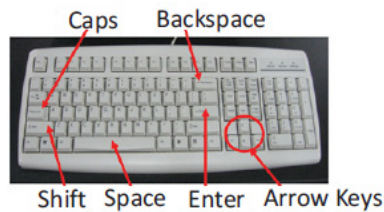
Fig.7.2.2. Parts of a Keyboard

- **Arrow Keys**: Press these keys to move your cursor.
- **Space bar**: Adds a space.
- **Enter/Return**: Moves your cursor to a new line.
- **Shift**: Press this key if you want to type a capital letter or the upper symbol of a key.
- **Caps Lock**: Press this key if you want all the letters you type to be capital letters. Press it again to revert back to typing lowercase letters.
- **Backspace**: Deletes everything to the left of your cursor.

Basic Internet Terms

- **The Internet:** A vast, international collection of computer networks that transfers information.
- **The World Wide Web:** A system that lets you access information on the Internet.
- **Website:** A location on the World Wide Web (and Internet) that contains information about a specific topic.
- **Homepage:** Provides information about a website and directs you to other pages on that website.
- **Link/Hyperlink:** A highlighted or underlined icon, graphic, or text that takes you to another file or object.
- **Web Address/URL:** The address for a website.
- **Address Box:** A box in the browser window where you can type in a web address.

Tips

- When visiting a .com address, there no need to type http:// or even www. Just type the name of the website and then press Ctrl + Enter. (Example: Type 'apple' and press Ctrl + Enter to go to www.apple.com)
- Press the Ctrl key and press the + or - to increase and decrease the size of text.
- Press F5 or Ctrl + R to refresh or reload a web page.

5.2.2 MS Office and Email: About MS Office

MS Office or Microsoft Office is a suite of computer programs developed by Microsoft. Although meant for all users, it offers different versions that cater specifically to students, home users and business users. All the programs are compatible with both, Windows and Macintosh.

Most Popular Office Products

Some of the most popular and universally used MS Office applications are:

- **Microsoft Word**: Allows users to type text and add images to a document.
- **Microsoft Excel**: Allows users to enter data into a spreadsheet and create calculations and graphs.
- **Microsoft PowerPoint**: Allows users to add text, pictures and media and create slideshows and presentations.
- **Microsoft Outlook**: Allows users to send and receive email.
- **Microsoft OneNote**: Allows users to make drawings and notes with the feel of a pen on paper.
- **Microsoft Access**: Allows users to store data over many tables.

Why Choose Microsoft Outlook?

A popular email management choice especially in the workplace, Microsoft Outlook also includes an address book, notebook, web browser and calendar. Some major benefits of this program are:

- **Integrated search function**: You can use keywords to search for data across all Outlook programs.
- **Enhanced security**: Your email is safe from hackers, junk mail and phishing website email.
- **Email syncing**: Sync your mail with your calendar, contact list, notes in One Note and…your phone!
- **Offline access to email:** No Internet? No problem! Write emails offline and send them when you're connected again.

Tips

- Press Ctrl+R as a shortcut method to reply to email.
- Set your desktop notifications only for very important emails.
- Flag messages quickly by selecting messages and hitting the Insert key.
- Save frequently sent emails as a template to reuse again and again.
- Conveniently save important emails as files.

5.2.3 E-Commerce: What is E-Commerce?

E-commerce is the buying or selling of goods and services, or the transmitting of money or data, electronically on the internet. E-Commerce is the short form for "electronic commerce."

Examples of E-Commerce

Some examples of e-commerce are:

- Online shopping
- Online auctions
- Online ticketing

- Electronic payments
- Internet banking

Types of E-Commerce

E-commerce can be classified based on the types of participants in the transaction. The main types of e-commerce are:

- **Business to Business (B2B)**: Both the transacting parties are businesses.
- **Business to Consumer (B2C)**: Businesses sell electronically to end-consumers.
- **Consumer to Consumer (C2C):** Consumers come together to buy, sell or trade items to other consumers.
- **Consumer-to-Business (C2B)**: Consumers make products or services available for purchase to companies looking for exactly those services or products.
- **Business-to-Administration (B2A)**: Online transactions conducted between companies and public administration.
- **Consumer-to-Administration (C2A)**: Online transactions conducted between individual and public administration.

Benefits of E-Commerce

The e-commerce business provides some benefits for retailers and customers.

Benefits for retailers

- Establishes an online presence
- Reduces operational costs by removing overhead costs
- Increases brand awareness through the use of good keywords
- Increases sales by removing geographical and time constraints

Benefits for customers

- Offers a wider range of choice than any physical store
- Enables goods and services to be purchased from remote locations
- Enables consumers to perform price comparisons

Digital India Campaign

Prime Minister Narendra Modi launched the Digital India campaign in 2015, with the objective of offering every citizen of India access to digital services, knowledge and information. The campaign aims to improve the country's online infrastructure and increase internet connectivity, thus boosting the e-commerce industry.

Currently, the majority of online transactions come from tier 2 and tier 3 cities. Once the Digital India campaign is in place, the government will deliver services through mobile connectivity, which will help deliver internet to remote corners of the country. This will help the e-commerce market to enter India's tier 4 towns and rural areas.

E-Commerce Activity

Choose a product or service that you want to sell online. Write a brief note explaining how you will use existing e-commerce platforms, or create a new e-commerce platform, to sell your product or service.

Tips

- Before launching your e-commerce platform, test everything.
- Pay close and personal attention to your social media.

UNIT 5.3: Money Matters

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Discuss the importance of saving money
2. Discuss the benefits of saving money
3. Discuss the main types of bank accounts
4. Describe the process of opening a bank account
5. Differentiate between fixed and variable costs
6. Describe the main types of investment options
7. Describe the different types of insurance products
8. Describe the different types of taxes
9. Discuss the uses of online banking
10. Discuss the main types of electronic funds transfers

5.3.1 Personal Finance – Why to Save? Importance of Saving

We all know that the future is unpredictable. You never know what will happen tomorrow, next week or next year. That's why saving money steadily through the years is so important. Saving money will help improve your financial situation over time. But more importantly, knowing that you have money stashed away for an emergency will give you peace of mind. Saving money also opens the door to many more options and possibilities.

Benefits of Saving

Inculcating the habit of saving leads to a vast number of benefits. Saving helps you:

- **Become financially independent**: When you have enough money saved up to feel secure you can start making your choices, from taking a vacation whenever you want, to switching careers or starting your own business.
- **Invest in yourself through education**: Through saving, you can earn enough to pay up for courses that will add to your professional experience and ultimately result in higher paying jobs.
- **Get out of debt**: Once you have saved enough as a reserve fund, you can use your savings to pay off debts like loans or bills that have accumulated over time.
- **Be prepared for surprise expenses:** Having money saved enables you to pay for unforeseen expenses like sudden car or house repairs, without feeling financially stressed.
- **Pay for emergencies**: Saving helps you deal with emergencies like sudden health issues or emergency trips without feeling financially burdened.

- **Afford large purchases and achieve major goals**: Saving diligently makes it possible to place down payments towards major purchases and goals, like buying a home or a car.
- **Retire**: The money you have saved over the years will keep you comfortable when you no longer have the income you would get from your job.

Tips

- Break your spending habit. Try not spending on one expensive item per week, and put the money that you would have spent into your savings.
- Decide that you will not buy anything on certain days or weeks and stick to your word.

5.3.2 Types of Bank Accounts, Opening a Bank Account

Types of Bank Accounts

In India, banks offer four main types of bank accounts. These are:

- Current Accounts
- Savings Accounts
- Recurring Deposit Accounts
- Fixed Deposit Accounts

Current Accounts

Current accounts offer the most liquid deposits and thus, are best suited for businessmen and companies. As these accounts are not meant for investments and savings, there is no imposed limit on the number or amount of transactions that can be made on any given day. Current account holders are not paid any interest on the amounts held in their accounts. They are charged for certain services offered on such accounts.

Saving Accounts

Savings accounts are meant to promote savings, and are therefore the number one choice for salaried individuals, pensioners and students. While there is no restriction on the number and amount of deposits made, there are usually restrictions on the number and amount of withdrawals. Savings account holders are paid interest on their savings.

Recurring Deposit Accounts

Recurring Deposit accounts, also called RD accounts, are the accounts of choice for those who want to save an amount every month, but are unable to invest a large sum at one time. Such account holders deposit a small, fixed amount every month for a pre-determined period (minimum 6 months). Defaulting on a monthly payment results in the account holder being charged a penalty amount. The total amount is repaid with interest at the end of the specified period.

Fixed Deposit Accounts

Fixed Deposit accounts, also called FD accounts, are ideal for those who wish to deposit their savings for a long term in return for a high rate of interest. The rate of interest offered depends on the amount deposited and the time period, and also differs from bank to bank. In the case of an FD, a certain amount of money is deposited by the account holder for a fixed period of time. The money can be withdrawn when the period expires. If necessary, the depositor can break the fixed deposit prematurely. However, this usually attracts a penalty amount which also differs from bank to bank.

Opening a Bank Account

Opening a bank account is quite a simple process. Take a look at the steps to open an account of your own:

Step 1: Fill in the Account Opening Form
This form requires you to provide the following information:

- Personal details (name, address, phone number, date of birth, gender, occupation, address)
- Method of receiving your account statement (hard copy/email)
- Details of your initial deposit (cash/cheque)
- Manner of operating your account (online/mobile banking/traditional via cheque, slip books)

Ensure that you sign wherever required on the form.

Step 2: Affix your Photograph

Stick a recent photograph of yourself in the allotted space on the form.

Step 3: Provide your Know Your Customer (KYC) Details

KYC is a process that helps banks verify the identity and address of their customers. To open an account, every individual need to submit certain approved documents with respect to photo identity (ID) and address proof. Some Officially Valid Documents (OVDs) are:

- Passport
- Driving License
- Voters' Identity Card
- PAN Card
- UIDAI (Aadhar) Card

Step 4: Submit All your Documents

Submit the completed Account Opening Form and KYC documents. Then wait until the forms are processed and your account has been opened!

Tips

- Select the right type of account.

- Fill in complete nomination details.

- Ask about fees.

- Understand the rules.

- Check for online banking – it's convenient!

- Keep an eye on your bank balance.

5.3.3 Costs: Fixed vs Variable: What are Fixed and Variable Costs?

Fixed costs and variable costs together make up a company's total cost. These are the two types of costs that companies have to bear when producing goods and services. A fixed cost does not change with the volume of goods or services a company produces. It always remains the same.

A variable cost, on the other hand, increases and decreases depending on the volume of goods and services produced. In other words, it varies with the amount produced.

Differences between Fixed and Variable Costs

Let's take a look at some of the main differences between fixed and variable costs:

Criteria	Fixed Costs	Variable Costs
Meaning	A cost that stays the same, regardless of the output produced.	A cost that changes when the
Nature	Time related.	Volume related.
Incurred	Incurred irrespective of units being produced.	Incurred only when units are produced
Unit cost	Inversely proportional to the number of units produced	Remains the same, per unit.
Examples	Depreciation, rent, salary, insurance and tax	Material consumed, wages, commission on sales and packing expenses

Fig 5.3.1: Differences between fixed and variable costs

Tips

When trying to determine whether a cost is fixed or variable, simply ask the following question: Will the particular cost change if the company stopped its production activities? If the answer is no, then it is a fixed cost. If the answer is yes, then it is probably a variable cost.

5.3.4 Investment, Insurance and Taxes: Investment

Investment means that money is spent today with the aim of reaping financial gains at a future time. The main types of investment options are as follows:

- **Bonds:** Bonds are instruments used by public and private companies to raise large sums of money – too large to be borrowed from a bank. These bonds are then issued in the public market and are bought by lenders.
- **Stocks:** Stocks or equity are shares that are issued by companies and are bought by the general public.
- **Small Savings Schemes:** Small Savings Schemes are tools meant to save money in small amounts. Some popular schemes are the Employees Provident Fund, Sukanya Samriddhi Scheme and National Pension Scheme.
- **Mutual Funds:** Mutual Funds are professionally managed financial instruments that invest money in different securities on behalf of investors.
- **Fixed Deposits:** A fixed amount of money is kept aside with a financial institution for a fixed amount of time in return for interest on the money.
- **Real Estate:** Loans are taken from banks to purchase real estate, which is then leased or sold with the aim of making a profit on the appreciated property price.
- **Hedge Funds:** Hedge funds invest in both financial derivatives and/or publicly traded securities.
- **Private Equity:** Private Equity is trading in the shares of an operating company that is not publicly listed and whose shares are not available on the stock market.

Insurance

There are two types of insurance – Life Insurance and Non-Life or General Insurance.

Life Insurance

Life Insurance deals with all insurance covering human life.

Life Insurance Products

The main life insurance products are:

- **Term Insurance:** This is the simplest and cheapest form of insurance. It offers financial protection for a specified tenure, say 15 to 20 years. In the case of your death, your family is paid the sum assured. In the case of your surviving the term, the insurer pays nothing.

- **Endowment Policy:** This offers the dual benefit of insurance and investment. Part of the premium is allocated towards the sum assured, while the remaining premium gets invested in equity and debt. It pays a lump sum amount after the specified duration or on the death of the policyholder, whichever is earlier.
- **Unit-Linked Insurance Plan (ULIP):** Here part of the premium is spent on the life cover, while the remaining amount is invested in equity and debt. It helps develop a regular saving habit.
- **Money Back Life Insurance:** While the policyholder is alive, periodic payments of the partial survival benefits are made during the policy tenure. On the death of the insured, the insurance company pays the full sum assured along with survival benefits.
- **Whole Life Insurance:** It offers the dual benefit of insurance and investment. It offers insurance cover for the whole life of the person or up to 100 years whichever is earlier.

General Insurance

General Insurance deals with all insurance covering assets like animals, agricultural crops, goods, factories, cars and so on.

General Insurance Products

The main general insurance products are:

- **Motor Insurance:** This can be divided into Four-Wheeler Insurance and Two-Wheeler insurance.
- **Health Insurance:** The main types of health insurance are individual health insurance, family floater health insurance, comprehensive health insurance and critical illness insurance.
- **Travel Insurance:** This can be categorised into Individual Travel Policy, Family Travel Policy, Student Travel Insurance and Senior Citizen Health Insurance.
- **Home Insurance:** This protects the house and its contents from risk.
- **Marine Insurance:** This insurance covers goods, freight and cargo against loss or damage during transit by rail, road, sea and/or air.

Taxes

There are two types of taxes – Direct Taxes and Indirect Taxes.

Direct Tax

Direct taxes are levied directly on an entity or a person and are non-transferrable. Some examples of Direct Taxes are:

- **Income Tax:** This tax is levied on your earning in a financial year. It is applicable to both, individuals and companies.
- **Capital Gains Tax:** This tax is payable whenever you receive a sizable amount of money. It is usually of two types – short term capital gains from investments held for less than 36 months and long term capital gains from investments held for longer than 36 months.

- **Securities Transaction Tax:** This tax is added to the price of a share. It is levied every time you buy or sell shares

- **Perquisite Tax:** This tax is levied is on perks that have been acquired by a company or used by an employee.
- **Corporate Tax:** Corporate tax is paid by companies from the revenue they earn.

Indirect Tax

Indirect taxes are levied on goods or services. Some examples of Indirect Taxes are:

- **Sales Tax:** Sales Tax is levied on the sale of a product.
- **Service Tax:** Service Tax is added to services provided in India.
- **Value Added Tax:** Value Added Tax is levied at the discretion of the state government. The tax is levied on goods sold in the state. The tax amount is decided by the state.
- **Customs Duty & Octroi:** Customs Duty is a charge that is applied on purchases that are imported from another country. Octroi is levied on goods that cross state borders within India.
- **Excise Duty:** Excise Duty is levied on all goods manufactured or produced in India

Tips

- Think about how quickly you need your money back and pick an investment option accordingly.
- Ensure that you are buying the right type of insurance policy for yourself.
- Remember, not paying taxes can result in penalties ranging from fines to imprisonment.

5.3.5 Online Banking, NEFT, RTGS etc.: What is Online Banking?

Internet or online banking allows account holders to access their account from a laptop at any location. In this way, instructions can be issued. To access an account, account holders simply

Internet banking can be used to:

- Find out an account balance
- Request for a cheque book
- Transfer amounts from one account to another
- Request for a statement of accounts
- Arrange for the issuance of cheques
- Make a fixed deposit
- Instruct payments to be made

Electronic Funds Transfers

Electronic funds transfer is a convenient way of transferring money from the comfort of one's own home, using integrated banking tools like internet and mobile banking.
Transferring funds via an electronic gateway is extremely convenient. With the help of online banking, you can choose to:

- Transfer funds into your own accounts of the same bank.
- Transfer funds into other bank accounts using RTGS.
- Transfer funds into different accounts of the same bank.
- Transfer funds into various accounts using IMPS.
- Transfer funds into accounts in different bank, using NEFT.

NEFT

NEFT stands for National Electronic Funds Transfer. This money transfer system allows you to electronically transfer funds from your respective bank accounts to any other account, either in the same bank or belonging to any other bank. NEFT can be used by individuals, firms and corporate organizations to transfer funds between accounts.

In order to transfer funds via NEFT, two things are required:

- A transferring bank
- A destination bank

Before you can transfer funds through NEFT, you will need to register the beneficiary who will be receiving the funds. In order to complete this registration, you will require the following information:

- Recipient's name
- Recipient's bank's name
- Recipient's account number
- Recipient's bank's IFSC code

RTGS

RTGS stands for Real Time Gross Settlement. This is a real-time fund transfer system which enables you to transfer funds from one bank to another, in real time or on a gross basis. The transferred amount is immediately deducted from the account of one bank, and instantly credited to the other bank's account. The RTGS payment gateway is maintained by the Reserve Bank of India. The transactions between banks are made electronically. RTGS can be used by individuals, companies and firms to transfer large sums of money. Before remitting funds through RTGS, you will need to add the beneficiary and his bank account details via your online banking account.

In order to complete this registration, you will require the

- Name of the beneficiary
- Beneficiary's account number

- Beneficiary's bank address
- Beneficiary's bank's IFSC code

IMPS

IMPS stands for Immediate Payment Service. This is a real-time, inter-bank, electronic funds transfer system used to transfer money instantly within banks across India. IMPS enables users to make instant electronic transfer payments using mobile phones through both, Mobile Banking and SMS. It can also be used through ATMs and online banking. IMPS is available 24 hours a day and 7 days a week. The system features a secure transfer gateway and immediately confirms orders that have been fulfilled.

- Register for IMPS with your bank
- Receive a Mobile Money Identifier (MMID) from the bank
- Receive a MPIN from the bank

To transfer money through IMPS, the you need to:

Once you have both these, you can login or make a request through SMS to transfer a particular amount to a beneficiary.

For the beneficiary to receive the transferred money, he must:

1. Link his mobile number with his respective account

2. Receive the MMID from the bank

In order to initiate a money transfer through IMPS, you will need to enter the following information:

1. The beneficiary's mobile number
2. The beneficiary's MMID

3. The transfer amount
4. Your MPIN

As soon as money has been deducted from your account and credited into the beneficiary's account, you will be sent a confirmation SMS with a transaction reference number, for future reference.

Differences between NEFT, RTGS & IMPS

Criteria	NEFT	RTGS	IMPS
Settlement	Done in batches	Real-time	Real-time
Full form	National Electronic Fund Transfer	Real Time Gross Settlement	Immediate Payment Service
Timings on Monday – Friday	8:00 am – 6:30 pm	9:00 am – 4:30 pm	24x7
Timings on Saturday	8:00 am – 1:00 pm	9:00 am – 1:30 pm	24x7
Minimum amount of money transfer limit	₹1	₹2 lacs	₹1
Maximum amount of money transfer limit	₹10 lacs	₹10 lacs per day	₹2 lacs

Maximum charges as per RBI	Up to 10,000 – ₹2.5 above 10,000 – 1 lac - ₹5 above 1 – 2 lacs ₹15 above 2 – 5 lacs ₹25 above 5 – 10 lacs ₹25	above 2 – 5 lacs ₹25 above 5 – 10 lacs ₹50	Up to 10,000 – ₹5 above 10,000 – 1 lac – ₹5 above 1 – 2 lacs – ₹15

Fig 5.3.2 : Differences between NEFT, RTGS & IMPS

Tips

- Never click on any links in any e-mail message to access your online banking website.
- You will never be asked for your credit or debit card details while using online banking.
- Change your online banking password regularly.

UNIT 5.4: Preparing for Employment & Self-Employment

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Discuss the steps to prepare for an interview
2. Discuss the steps to create an effective Resume
3. Discuss the most frequently asked interview questions
4. Discuss how to answer the most frequently asked interview questions
5. Discuss basic workplace terminology

5.4.1 Interview Preparation: How to Prepare for an Interview?

The success of your getting the job that you want depends largely on how well your interview for that job goes. Therefore, before you go in for your interview, it is important that you prepare for it with a fair amount of research and planning. Take a look at the steps to follow in order to be well prepared for an interview:

1. **Research the organization that you are having the interview with.**
   - Studying the company beforehand will help you be more prepared at the time of the interview. Your knowledge of the organization will help you answer questions at the time of the interview, and will leave you looking and feeling more confident. This is sure to make you stand out from other, not as well informed, candidates.
   - Look for background information on the company. Ty and find an overview of the company and its industry profile.
   - Visit the company website to get a good idea of what the company does. A company website offers a wealth of important information. Read and understand the company's mission statement. Pay attention to the company's products/services and client list. Read through any press releases to get an idea of the company's projected growth and stability.
   - Note down any questions that you have after your research has been completed.
2. **Think about whether your skills and qualifications match the job requirements.**
   - Carefully read through and analyse the job description.
   - Make a note of the knowledge, skills and abilities required to fulfil the job requirements.
   - Take a look at the organization hierarchy. Figure out where the position you are applying for fits into this hierarchy.
3. **Go through the most typical interview questions asked, and prepare your responses.**
   - Remember, in most interviews a mix of resume-based, behavioural and case study questions are asked.
   - Think about the kind of answers you would like to provide to typical questions asked in these three areas.
   - Practice these answers until you can express them confidently and clearly.

4. **Plan your attire for the interview.**
   - It is always safest to opt for formal business attire, unless expressly informed to dress in business casual (in which case you should use your best judgement)
   - Ensure that your clothes are clean and well-ironed. Pick neutral colours – nothing too bright or flashy.
   - The shoes you wear should match your clothes, and should be clean and suitable for a n interview.
   - Remember, your aim is to leave everyone you meet with the impression that you are a professional and highly efficient person.

5. **Ensure that you have packed everything that you may require during the interview.**
   - Carry a few copies of your resume. Use a good quality paper for your resume print outs.
   - Always take along a notepad and a pen.
   - Take along any information you may need to refer to, in order to fill out an application form.
   - Carry a few samples of your work, if relevant.

6. **Remember the importance of non-verbal communication.**
   - Practice projecting confidence. Remind yourself to smile and make eye contact. Practice giving a firm handshake.
   - Keep in mind the importance of posture. Practice sitting up straight. Train yourself to stop nervous gestures like fidgeting and foot-tapping.
   - Practice keeping your reactions in check. Remember, your facial expressions provide a good insight into your true feelings. Practice projecting a positive image.

7. **Make a list of questions to end the interview with.**
   - Most interviews will end with the interviewer(s) asking if you have any questions. This is your chance to show that you have done your research and are interested in learning more about the company.
   - If the interviewer does not ask you this question, you can inform him/her that you have some queries that you would like to discuss. This is the time for you to refer to the notes you made while studying the company.
   - Some good questions to ask at this point are:
     - What do you consider the most important criteria for success in this job?
     - How will my performance be evaluated?
     - What are the opportunities for advancement?
     - What are the next steps in the hiring process?
   - Remember, never ask for information that is easily available on the company website.

Tips

- Ask insightful and probing questions.
- When communicating, use effective forms of body language like smiling, making eye contact, and actively listening and nodding. Don't slouch, play with nearby items, fidget, chew gum, or mumble.

5.4.2 Preparing an Effective Resume: How to Create an Effective Resume?

A resume is a formal document that lists a candidate's work experience, education and skills. A good resume gives a potential employer enough information to believe the applicant is worth interviewing. That's why it is so important to create a résumé that is effective. Take a look at the steps to create an effective resume:

Step 1: Write the Address Section

The Address section occupies the top of your resume. It includes information like your name, address, phone number and e-mail address. Insert a bold line under the section to separate it from rest of your resume.

Example:

Khyati Mehta
Breach Candy, Mumbai – India
Contact No: +91 2223678270
Email: jasmine.watts@gmail.com

Step 2: Add the Profile Summary Section

This part of your resume should list your overall experiences, achievements, awards, certifications and strengths. You can make your summary as short as 2-3 bullet points or a s long as 8-10 bullet points.

Example:

Profile Summary
- A Floor Supervisor graduated from University of Delhi having 6 years of experience in managing a retail outlet.
- Core expertise lies in managing retail staff, including cashiers and people working on the floor.

Step 3: Include Your Educational Qualifications

When listing your academic records, first list your highest degree. Then add the second highest qualification under the highest one and so on. To provide a clear and accurate picture of your educational background, it is critical that include information on your position, rank, percentage or CPI for every degree or certification that you have listed.

If you have done any certifications and trainings, you can add a Trainings & Certifications section under your Educational Qualifications section.

Example:

> **Educational Qualifications**
> *<Enter qualification> <enter date of qualification> from <enter name of institute> with <enter percentage or any other relevant scoring system>.*

Step 4: List Your Technical Skills

When listing your technical skills, start with the skills that you are most confident about. Then add the skills that you do not have as good a command over. It is perfectly acceptable to include just one skill, if you feel that particular skill adds tremendous value to your résumé. If you do not have any technical skills, you can omit this step.

Example:

> **Technical Skills**
> • *<Enter your technical skill here, if applicable>*

Step 5: Insert Your Academic Project Experience

List down all the important projects that you have worked on. Include the following information in this section:

• Project title	• Organization	• Platform used
• Contribution	• Description	

Example:

> **Academic Projects**
> **Project Title**: *<Insert project title>*
> **Organization**: *<Insert the name of the organization for whom you did the project>*
> **Platform used**: *<Insert the platform used, if any>*
> **Contribution**: *<Insert your contribution towards this project>*
> **Description**: *<Insert a description of the project in one line>*

Step 6: List Your Strengths

This is where you list all your major strengths. This section should be in the form of a bulleted list.

Example:

> **Strengths**
> • Excellent oral, written and presentation skills
> • Action-oriented and result-focused
> • Great time management skills

Step 7: List Your Extracurricular Activities

It is very important to show that you have diverse interests and that your life consists of more than academics. Including your extracurricular activities can give you an added edge over other candidates who have similar academic scores and project experiences. This section should be in the form of a bulleted list.

Example:

> *< Insert your extracurricular activity here. E.g.: Member of, _____ played (name of sport) at _____ level, won (name of prize/award) for _____>*

Step 8: Write Your Personal Details

The last section of your résumé must include the following personal information:

- Date of birth
- Nationality
- Gender & marital status
- Languages known

Example:

> Personal Details
> - Date of birth: 25th May, 1981
> - Gender & marital status: Female, Single
> - Nationality: Indian

Tips

- Keep your resume file name short, simple and informational.
- Make sure the resume is neat and free from typing errors.
- Always create your resume on plain white paper.

5.4.3 Interview FAQs

Take a look at some of the most frequently asked interview questions, and some helpful tips on how to answer them.

Q1. Can you tell me a little about yourself?

Tips to answer:

- Don't provide your full employment or personal history.
- Offer 2-3 specific experiences that you feel are most valuable and relevant.
- Conclude with how those experiences have made you perfect for this specific role.

Q2. How did you hear about the position?

Tips to answer:

- Tell the interviewer how you heard about the job – whether it was through a friend (name the friend), event or article (name them) or a job portal (say which one).
- Explain what excites you about the position and what in particular caught your eye about this role.

Q3. What do you know about the company?

Tips to answer:
- Don't recite the company's About Us page.
- Show that you understand and care about the company's goals.
- Explain why you believe in the company's mission and values.

Q4. Why do you want this job?

Tips to answer:

- Show that you are passionate about the job.
- Identify why the role is a great fit for you.
- Explain why you love the company.

Q5. Why should we hire you?

Tips to answer:
- Prove through your words that you can not only do the work, but can definitely deliver excellent results.
- Explain why you would be a great fit with the team and work culture.
- Explain why you should be chosen over any other candidate.

Q6. What are your greatest professional strengths?

Tips to answer:
- Be honest – share some of your real strengths, rather than give answers that you think sound good.
- Offer examples of specific strengths that are relevant to the position you are applying for.
- Provide examples of how you've demonstrated these strengths.

Q7. What do you consider to be your weaknesses?
Tips to answer:
- The purpose of this question is to gauge your self-awareness and honesty.
- Give an example of a trait that you struggle with, but that you're working on to improve.

Q8. What are your salary requirements?

Tips to answer:
- Do your research beforehand and find out the typical salary range for the job you are applying for.
- Figure out where you lie on the pay scale based on your experience, education, and skills.
- Be flexible. Tell the interviewer that you know your skills are valuable, but that you want the job and are willing to negotiate.

Q9. What do you like to do outside of work?

Tips to answer:
- The purpose of this question is to see if you will fit in with the company culture.
- Be honest – open up and share activities and hobbies that interest and excite you.

Q10. If you were an animal, which one would you want to be?

Tips to answer:
- The purpose of this question is to see if you are able to think on your feet.
- There's no wrong answer – but to make a great impression try to bring out your strengths or personality traits through your answer.

Q11: What do you think we could do better or differently?

Tips to answer:
- The purpose of this question is to see if you have done your research on the company, and to test whether you can think critically and come up with new ideas.
- Suggest new ideas. Show how your interests and expertise would help you execute these ideas.

Q12: Do you have any questions for us?

Tips to answer:
- Do not ask questions to which the answers can be easily found on the company website or through a quick online search.
- Ask intelligent questions that show your ability to think critically.

Tips

- Be honest and confident while answering.
- Use examples of your past experiences wherever possible to make your answers more impactful.

5.4.4 Work Readiness – Terms & Terminologies: Basic Workplace Terminology

Every employee should be well versed in the following terms:

- **Annual leave:** Paid vacation leave given by employers to employees.
- **Background Check:** A method used by employers to verify the accuracy of the information provided by potential candidates.
- **Benefits:** A part of an employee's compensation package.
- **Breaks:** Short periods of rest taken by employees during working hours.
- **Compensation Package:** The combination of salary and benefits that an employer provides to his/her employees.
- **Compensatory Time (Comp Time):** Time off in lieu of pay.
- **Contract Employee:** An employee who works for one organization that sells said employee's service to another company, either on a project or time basis.
- **Contract of Employment:** When an employee is offered work in exchange for wages or salary, and accepts the offer made by the employer, a contract of employment exists.
- **Corporate Culture:** The beliefs and values shared by all the members of a company, and imparted from one generation of employees to another.
- **Counter Offer/Counter Proposal:** A negotiation technique used by potential candidates to increase the amount of salary offered by a company.
- **Cover Letter:** A letter that accompanies a candidate's resume. It emphasizes the important points in the candidate's resume and provides real examples that prove the candidate's ability to perform the expected job role.
- **Curriculum Vitae (CV)/Resume:** A summary of a candidate's achievements, educational work experience, skills and strengths.
- **Declining Letter:** A letter sent by an employee to an employer, turning down the job offer employer to the employee.
- **Deductions:** Amounts subtracted from an employee's pay and listed on the employee's pay slip.
- **Discrimination:** The act of treating one person not as favourably as another person.
- **Employee:** A person who works for another person in exchange for payment.
- **Employee Training:** A workshop or in-house training that an employee is asked to attend by his or her superior, for the benefit of the employer.
- **Employment Gaps:** Periods of unemployed time between jobs.
- **Fixed-Term Contract:** A contract of employment which gets terminated on an agreed-upon date.
- **Follow-Up:** The act of contacting a potential employer after a candidate has submitted his or her resume.
- **Freelancer/Consultant/Independent Contractor:** A person who works for him or herself for temporary jobs and projects with different employers.
- **Holiday**: Paid time-off from work.
- **Hourly Rate**: The amount of salary or wages paid for 60 minutes of work.

- **Internship**: A job opportunity offered by an employer to a potential employee, called an at the employer's company for a fixed, limited time period.
- **Interview**: A conversation between a potential employee and a representative of an order to determine if the potential employee should be hired.
- **Job Application**: A form which asks for a candidate's information like the candidate's name, details and work experience. The purpose of a candidate submitting a job application, is to show that candidate's interest in working for a particular company.
- **Job Offer**: An offer of employment made by an employer to a potential employee.
- **Job Search Agent**: A program that enables candidates to search for employment opportunities by selecting criteria listed in the program, for job vacancies. background, made by the and pitches intern, to work employer, in address, contact
- **Lay Off**: A lay off occurs when an employee is temporarily let go from his or her job, due to the employer not having any work for that employee.
- **Leave**: Formal permission given to an employee, by his or her employer, to take a leave of absence from work.
- **Letter of Acceptance**: A letter given by an employer to an employee, confirming the offer of employment made by the employer, as well as the conditions of the offer.
- **Letter of Agreement**: A letter that outlines the terms of employment.
- **Letter of Recommendation**: A letter written for the purpose of validating the work skills o f a person.
- **Maternity Leave**: Leave taken from work by women who are pregnant, or who have just given birth.
- **Mentor**: A person who is employed at a higher level than you, who offers you advice and guides you in your career.
- **Minimum wage**: The minimum wage amount paid on an hourly basis.
- **Notice**: An announcement made by an employee or an employer, stating that the employment contract will end on a particular date.
- **Offer of Employment**: An offer made by an employer to a prospective employee that contains important information pertaining to the job being offered, like the starting date, salary, working conditions etc.
- **Open-Ended Contract**: A contract of employment that continues till the employer or terminates it.
- **Overqualified**: A person who is not suited for a particular job because he or she has too m any years of work experience, or a level of education that is much higher than required f or the job, or is currently or was previously too highly paid.
- **Part-Time Worker**: An employee who works for fewer hours than the standard number of hours normally worked.
- **Paternity Leave**: Leave granted to a man who has recently become a father.
- **Recruiters/Head-hunters/Executive Search Firms**: Professionals who are paid by employers to search for people to fill particular positions.
- **Resigning/Resignations**: When an employee formally informs his or her employer that he or she is quitting his or her job.
- **Self-Employed**: A person who has his or her own business and does not work in the capacity of an employee.
- **Time Sheet**: A form that is submitted to an employer, by an employee, that contains the number of hours worked every day by the employee.

UNIT 5.5: Understanding Entrepreneurship

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Discuss the concept of entrepreneurship
2. Discuss the importance of entrepreneurship
3. Describe the characteristics of an entrepreneur
4. Describe the different types of enterprises
5. List the qualities of an effective leader
6. Discuss the benefits of effective leadership
7. List the traits of an effective team
8. Discuss the importance of listening effectively
9. Discuss how to listen effectively
10. Discuss the importance of speaking effectively
11. Discuss how to speak effectively
12. Discuss how to solve problems
13. List important problem solving traits
14. Discuss ways to assess problem solving skills
15. Discuss the importance of negotiation
16. Discuss how to negotiate
17. Discuss how to identify new business opportunities
18. Discuss how to identify business opportunities within your business
19. Explain the meaning of entrepreneur
20. Describe the different types of entrepreneurs
21. List the characteristics of entrepreneurs
22. Recall entrepreneur success stories
23. Discuss the entrepreneurial process
24. Describe the entrepreneurship ecosystem
25. Discuss the purpose of the Make in India campaign
26. Discuss key schemes to promote entrepreneurs
27. Discuss the relationship between entrepreneurship and risk appetite
28. Discuss the relationship between entrepreneurship and resilience
29. Describe the characteristics of a resilient entrepreneur
30. Discuss how to deal with failure

5.5.1 Concept Introduction (Characteristic of Entrepreneur, types of firms / types of enterprises)

Entrepreneurs and Entrepreneurship

Anyone who is determined to start a business, no matter what the risk, is an entrepreneur. Entrepreneurs run their own start-up, take responsibility for the financial risks and use creativity, innovation and vast reserves of self-motivation to achieve success. They dream big and are determined to do whatever it takes to turn their idea into a viable offering. The aim of a n entrepreneur is to create an enterprise. The process of creating this enterprise is known as entrepreneurship.

Importance of Entrepreneurship

1. Entrepreneurship is very important for the following reasons:
2. It results in the creation of new organizations
3. It brings creativity into the marketplace
4. It leads to improved standards of living
5. It helps develop the economy of a country

Characteristics of Entrepreneurs

All successful entrepreneurs have certain characteristics in common.

They are all:

- Extremely passionate about their work
- Confident in themselves
- Disciplined and dedicated
- Motivated and driven
- Highly creative
- Visionaries
- Open-minded
- Decisive

Entrepreneurs also have a tendency to:

- Have a high-risk tolerance
- Thoroughly plan everything
- Manage their money wisely
- Make their customers their priority
- Understand their offering and their market in detail
- Ask for advice from experts when required
- Know when to cut their losses

Examples of Famous Entrepreneurs

Some famous entrepreneurs are:

- Dhirubhai Ambani (Reliance)
- Azim Premji (Wipro)

- Dr. Karsanbhai Patel (Nirma)
- Anil Agarwal (Vedanta Resources)

Types of Enterprises

As an entrepreneur in India, you can own and run any of the following types of enterprises:

Sole Proprietorship

In a sole proprietorship, a single individual owns, manages and controls the enterprise. This type of business is the easiest to form with respect to legal formalities. The business and the owner have no separate legal existence. All profit belongs to the proprietor, as do all the losses the liability of the entrepreneur is unlimited.

Partnership

A partnership firm is formed by two or more people. The owners of the enterprise are called partners. A partnership deed must be signed by all the partners. The firm and its partners have no separate legal existence. The profits are shared by the partners. With respect to losses, the liability of the partners is unlimited. A firm has a limited life span and must be dissolved when any one of the partners dies, retires, claims bankruptcy or goes insane.

Limited Liability Partnership (LLP)

In a Limited Liability Partnership or LLP, the partners of the firm enjoy perpetual existence as well as the advantage of limited liability. Each partner's liability is limited to their agreed contribution to the LLP. The partnership and its partners have a separate legal existence.

Tips

- Learn from others' failures.
- Be certain that this is what you want.
- Search for a problem to solve, rather than look for a problem to attach to your idea.

5.5.2 Leadership & Teamwork: Leadership and Leaders

Leadership means setting an example for others to follow. Setting a good example means not asking someone to do something that you wouldn't willingly want to do yourself. Leadership is about figuring out what to do in order to win as a team, and as a company. Leaders believe in doing the right things. They also believe in helping others to do the right things. An effective leader is someone who:

- Creates an inspiring vision of the future.
- Motivates and inspires his team to pursue that vision.

Leadership Qualities That All Entrepreneurs Need

Building a successful enterprise is only possible if the entrepreneur in charge possesses excellent leadership qualities. Some critical leadership skills that every entrepreneur must have are:

1. **Pragmatism:** This means having the ability to highlight all obstacles and challenges, in order to resolve issues and reduce risks.
2. **Humility:** This means admitting to mistakes often and early, and being quick to take responsibility for your actions. Mistakes should be viewed as challenges to overcome, not opportunities to point blame.
3. **Flexibility:** It is critical for a good leader to be very flexible and quickly adapt to change. It is equally critical to know when to adapt and when not to.
4. **Authenticity:** This means showing both, your strengths and your weaknesses. It means being human and showing others that you are human.
5. **Reinvention:** This means refreshing or changing your leadership style when necessary. To do this, it's important to learn where your leadership gaps lie and find out what resources are required to close them.
6. **Awareness:** This means taking the time to recognize how others view you. It means understanding how your presence affects those around you.

Benefits of Effective Leadership

Effective leadership results in numerous benefits. Great leadership leads to the leader successfully:

- Gaining the loyalty and commitment of the team members
- Motivating the team to work towards achieving the company's goals and objectives
- Building morale and instilling confidence in the team members
- Fostering mutual understanding and team-spirit among team members
- Convincing team members about the need to change when a situation requires adaptability

Teamwork and Teams

Teamwork occurs when the people in a workplace combine their individual skills to pursue a common goal. Effective teams are made up of individuals who work together to achieve this common goal. A great team is one who holds themselves accountable for the end result.

1. **Unity of purpose:** All the team members should clearly understand and be equally committed to the purpose, vision and goals of the team.
2. **Great communication skills:** Team members should have the ability to express their concerns, ask questions and use diagrams, and charts to convey complex information.
3. **The ability to collaborate:** Every member should feel entitled to provide regular feedback on new ideas.
4. **Initiative:** The team should consist of proactive individuals. The members should have the enthusiasm to come up with new ideas, improve existing ideas, and conduct their own research.

5.   **Visionary members:** The team should have the ability to anticipate problems and act on these potential problems before they turn into real problems.
6.   **Great adaptability skills:** The team must believe that change is a positive force. Change should be seen as the chance to improve and try new things.
7.   **Excellent organizational skills:** The team should have the ability to develop standard work processes, balance responsibilities, properly plan projects, and set in place methods to measure progress and ROI.

Tips

- Don't get too attached to your original idea. Allow it to evolve and change.
- Be aware of your weaknesses and build a team that will complement your shortfalls.
- Hiring the right people is not enough. You need to promote or incentivize your most
- Talented people to keep them motivated.
- Earn your team's respect.

5.5.3 Communication Skills: Listening & Speaking the Importance of Listening Effectively

Listening is the ability to correctly receive and understand messages during the process of communication. Listening is critical for effective communication. Without effective listening skills, messages can easily be misunderstood. This results in a communication breakdown and can lead to the sender and the receiver of the message becoming frustrated or irritated. It's very important to note that listening is not the same as hearing. Hearing just refers to sounds that you hear. Listening is a whole lot more than that. To listen, one requires focus. It means not only paying attention to the story, but also focusing on how the story is relayed, the way language and voice is used, and even how the speaker uses their body language. The ability to listen depends on how effectively one can perceive and understand both, verbal and non-verbal cues.

How to Listen Effectively?

To listen effectively you should:

- Stop talking

- Stop interrupting

- Focus completely on what is being said

- Pay attention to the tone that is being used

- Pay attention to the speaker's gestures, facial expressions and eye movements

- Not try and rush the person

-

- Nod and use encouraging words and gestures

- Be open-minded

- Think about the speaker's perspective

- Be very, very patient

- Not let the speaker's mannerisms or habits irritate or distract you

The Importance of Speaking Effectively

How successfully a message gets conveyed depends entirely on how effectively you are able to get it through. An effective speaker is one who enunciates properly, pronounces words correctly, chooses the right words and speaks at a pace that is easily understandable.

Besides this, the words spoken out loud need to match the gestures, tone and body language used. What you say, and the tone in which you say it, results in numerous perceptions being formed. A person who speaks hesitantly may be perceived as having low self-esteem or lacking in knowledge of the discussed topic. Those with a quiet voice may very well be labelled as shy. And those who speak in commanding tones with high levels of clarity, are usually considered to be extremely confident. This makes speaking a very critical communication skill.

How to Speak Effectively?

To speak effectively you should:
- Incorporate body language in your speech like eye contact, smiling, nodding, gesturing etc.
- Build a draft of your speech before actually making your speech.
- Ensure that all your emotions and feelings are under control.
- Pronounce your words distinctly with the correct pitch and intensity. Your speech should be crystal clear at all times. Use a pleasant and natural tone when speaking. Your audience should not feel like you are putting on an accent or being unnatural in any way.
- Use precise and specific words to drive your message home. Ambiguity should be avoided at all costs.
- Ensure that your speech has a logical flow.
- Be brief. Don't add any unnecessary information.
- Make a conscious effort to avoid irritating mannerisms like fidgeting, twitching etc.
- Choose your words carefully and use simple words that the majority of the audience will have no difficulty understanding.
- Use visual aids like slides or a whiteboard.
- Speak slowly so that your audience can easily understand what you're saying. However, be careful not to speak too slowly because this can come across as stiff, unprepared or even condescending.
- Remember to pause at the right moments.

Tips

- If you're finding it difficult to focus on what someone is saying, try repeating their words in your head.
- Always maintain eye contact with the person that you are communicating with, when speaking as well as listening. This conveys and also encourages interest in the conversation.

5.5.4 Problem Solving & Negotiation Skills: What is a Problem?

As per The Concise Oxford Dictionary (1995), a problem is, "A doubtful or difficult matter requiring a solution"

All problems contain two elements:

1. Goals
2. Obstacles

The aim of problem solving is to recognize the obstacles and remove them in order to achieve the goals.

How to Solve Problems?

Solving a problem requires a level of rational thinking. Here are some logical steps to follow when faced with an issue:

Step 1: Identify the problem   **Step 2:** Study the problem in detail

Step 3: List all possible solutions   **Step 4:** Select the best solution

Step 5: Implement the chosen solution   **Step 6:** Check that the problem has really been solved

Important Traits for Problem Solving

Highly developed problem-solving skills are critical for both, business owners and their employees. The following personality traits play a big role in how effectively problems are solved:

- Being open minded
- Asking the right questions
- Being proactive

- Not panicking
- Having a positive attitude
- Focusing on the right problem

How to Assess for Problem Solving Skills?

As an entrepreneur, it would be a good idea to assess the level of problem solving skills of potential candidates before hiring them. Some ways to assess this skill are through:

1. Application forms: Ask for proof of the candidate's problem solving skills in the application form.

2. Psychometric tests: Give potential candidates logical reasoning and critical thinking tests and see how they fare.

3. Interviews: Create hypothetical problematic situations or raise ethical questions and see how the candidates respond.
4. Technical questions: Give candidates examples of real life problems and evaluate their thought process.

What is Negotiation?

Negotiation is a method used to settle differences. The aim of negotiation is to resolve differences through a compromise or agreement while avoiding disputes. Without negotiation, conflicts are likely to lead to resentment between people. Good negotiation skills help satisfy both parties and go a long way towards developing strong relationships.

Why Negotiate?

Starting a business requires many, many negotiations. Some negotiations are small while others are critical enough to make or break a start-up. Negotiation also plays a big role inside the workplace. As an entrepreneur, you need to know not only know how to negotiate yourself, but also how to train employees in the art of negotiation.

How to Negotiate?

Take a look at some steps to help you negotiate:

Step 1: Pre-Negotiation Preparation	Agree on where to meet to discuss the problem, decide who all will be present and set a time limit for the discussion.
Step 2: Discuss the problem	This involves asking questions, listening to the other side, puttingyour views forward and clarifying doubts.
Step 3: Clarify the Objective	Ensure that both parties want to solve the same problem and reach the same goal.
Step 4: Aim for a Win-Win Outcome	Try your best to be open minded when negotiating. Compromise and offer alternate solutions to reach an outcome where both parties win.
Step 5: Clearly Define the Agreement	When an agreement has been reached, the details of the agreement should be crystal clear to both sides, with no scope for misunderstandings.
Step 6: Implement the Agreed Upon Solution	Agree on a course of action to set the solution in motion

Tips

- Know exactly what you want before you work towards getting it
- Give more importance to listening and thinking, than speaking
- Focus on building a relationship rather than winning
- Remember that your people skills will affect the outcome
- Know when to walk away – sometimes reaching an agreement may not be possible

5.5.5 Business Opportunities Identification: Entrepreneurs and Opportunities

"The entrepreneur always searches for change, responds to it and exploits it as an opportunity."
Peter Drucker

The ability to identify business opportunities is an essential characteristic of an entrepreneur.

What is an Opportunity?

The word opportunity suggests a good chance or a favourable situation to do something offered by circumstances.

Common Questions Faced by Entrepreneurs

A critical question that all entrepreneurs face is how to go about finding the business opportunity that is right for them.

- Some common questions that entrepreneurs constantly think about are:
- Should the new enterprise introduce a new product or service based on an unmet need?
- Should the new enterprise select an existing product or service from one market and offer it in another where it may not be available?
- Should the enterprise be based on a tried and tested formula that has worked elsewhere?

It is therefore extremely important that entrepreneurs must learn how to identify new and existing business opportunities and evaluate their chances of success.

When is an Idea an Opportunity?

An idea is an opportunity when:

- It creates or adds value to a customer
- It solves a significant problem, removes a pain point or meets a demand
- Has a robust market and profit margin
- Is a good fit with the founder and management team at the right time and place

Factors to Consider When Looking for Opportunities

Consider the following when looking for business opportunities:

- Economic trends
- Market trends

- Changes in funding
- Changing relationships between vendors, partners and suppliers
- Changes in political support
- Shift in target audience

Ways to Identify New Business Opportunities

1. **Identify Market Inefficiencies**

   When looking at a market, consider what inefficiencies are present in the market. Think about ways to correct these inefficiencies.

2. **Remove Key Hassles**

   Rather than create a new product or service, you can innovatively improve a product, service or process.

3. **Create Something New**

   Think about how you can create a new experience for customers, based on existing business models.

4. **Pick a Growing Sector/Industry**

   Research and find out which sectors or industries are growing and think about what opportunities you can tap in the same.

5. **Think About Product Differentiation**

   If you already have a product in mind, think about ways to set it apart from the existing ones.

Ways to Identify Business Opportunities within Your Business

1. **SWOT Analysis**

   An excellent way to identify opportunities inside your business is by creating a SWOT analysis. The acronym SWOT stands for strengths, weaknesses, opportunities, and threats. SWOT analysis framework:
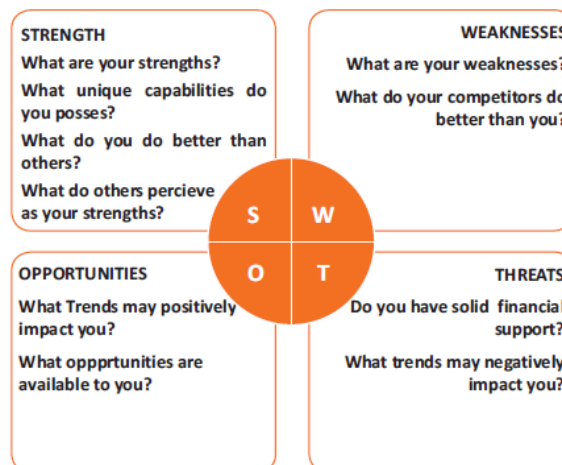

Fig.5.5.1. SWOT Analysis

Consider the following when looking for business opportunities:

By looking at yourself and your competitors using the SWOT framework, you can uncover opportunities that you can exploit, as well as manage and eliminate threats that could derail your success.

2. **Establishing Your USP**

Establish your USP and position yourself as different from your competitors. Identify why customers should buy from you and promote that reason.

Opportunity Analysis

Once you have identified an opportunity, you need to analyse it.

To analyse an opportunity, you must:

- Remember, opportunities are situational.
- Look for a proven track record.

- Avoid the latest craze.
- Love your idea.

5.5.6 Entrepreneurship Support Eco-System: Who is an Entrepreneur?

An entrepreneur is a person who:
- Does not work for an employee
- Runs a small enterprise
- Assumes all the risks and rewards of the enterprise, idea, good or service

Types of Entrepreneurs

There are four main types of entrepreneurs:

1. **The Traditional Entrepreneur:** This type of entrepreneur usually has some kind of skill – they can be a carpenter, mechanic, cook etc. They have businesses that have been around for numerous years like restaurants, shops and carpenters. Typically, they gain plenty of experience in a particular industry before they begin their own business in a similar field.
2. **The Growth Potential Entrepreneur:** The desire of this type of entrepreneur is to start an enterprise that will grow, win many customers and make lots of money. Their ultimate aim is to eventually sell their enterprise for a nice profit. Such entrepreneurs usually have a science or technical background.
3. **The Project-Oriented Entrepreneur:** This type of entrepreneur generally has a background in the Arts or psychology. Their enterprises tend to be focus on something that they are very passionate about.
4. **The Lifestyle Entrepreneur:** This type of entrepreneur has usually worked as a teacher or a secretary. They are more interested in selling something that people will enjoy, rather than making lots of money.

Characteristics of an Entrepreneur

Successful entrepreneurs have the following characteristics:

- They are highly motivated
- They are creative and persuasive
- They are mentally prepared to handle each and every task
- They have excellent business skills – they know how to evaluate their cash flow, sales and revenue
- They are willing to take great risks
- They are very proactive – this means they are willing to do the work themselves, rather than wait for someone else to do it
- They have a vision – they are able to see the big picture
- They are flexible and open-minded
- They are good at making decisions

Entrepreneur Success Stories

Dhiru Bhai Ambani

Dhirubhai Ambani began his entrepreneurial career by selling "bhajias" to pilgrims in Mount Girnar on weekends. At 16, he moved to Yemen where he worked as a gas-station attendant, and as a clerk in an oil company. He returned to India with Rs. 50,000 and started a textile trading company. Reliance went on to become the first Indian company to raise money in global markets and the first Indian company to feature in Forbes 500 list.

Dr. Karsanbhai Patel

Karsanbhai Patel made detergent powder in the backyard of his house. He sold his product door-to door and offered a money back guarantee with every pack that was sold. He charged Rs.3 per kg when the cheapest detergent at that time was Rs.13 per kg. Dr. Patel eventually started Nirma which became a whole new segment in the Indian domestic detergent market.

The Entrepreneurial Process

Let's take a look at the stages of the entrepreneurial process.

Stage 1: Idea Generation. The entrepreneurial process begins with an idea that has been thought of by the entrepreneur. The idea is a problem that has the potential to be solved.

Stage 2: Germination or Recognition. In this stage a possible solution to the identified problem is thought of.

Stage 3: Preparation or Rationalization. The problem is studied further and research is done to find out how others have tried to solve the same problem.

Stage 4: Incubation or Fantasizing. This stage involves creative thinking for the purpose of coming up with more ideas. Less thought is given to the problem areas.

Stage 5: Feasibility Study: The next step is the creation of a feasibility study to determine if the idea will make a profit and if it should be seen through.

Stage 6: Illumination or Realization. This is when all uncertain areas suddenly become clear. The entrepreneur feels confident that his idea has merit.

Stage 7: Verification or Validation. In this final stage, the idea is verified to see if it works and if it is useful.

Take a look at the diagram below to get a better idea of this process.
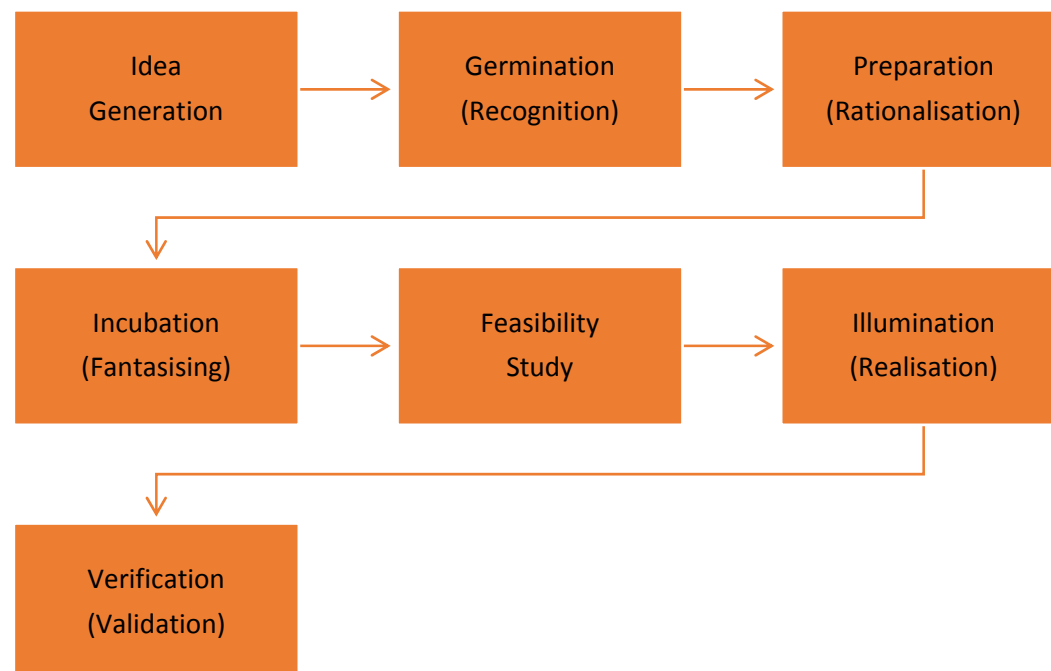
Fig.5.5.2. Entrepreneurship process

Introduction to the Entrepreneurship Ecosystem

The entrepreneurship support ecosystem signifies the collective and complete nature of entrepreneurship. New companies emerge and flourish not only because of the courageous, visionary entrepreneurs who launch them, but they thrive as they are set in an environment or 'ecosystem' made of private and public participants. These players nurture and sustain

the new ventures, facilitating the entrepreneurs' efforts. An entrepreneurship ecosystem comprises of the following six domains:

1. **Favourable Culture:** This includes elements such as tolerance of risk and errors, valuable networking and positive social standing of the entrepreneur.
2. **Facilitating Policies & Leadership:** This includes regulatory framework incentives and existence of public research institutes.
3. **Financing Options:** Angel financing, venture capitalists and micro loans would be good examples of this.
4. **Human Capital:** This refers to trained and untrained labour, entrepreneurs and entrepreneurship training programmes, etc.
5. **Conducive Markets for Products & Services:** This refers to an existence or scope of existence of a market for the product/service.
6. **Institutional & Infrastructural Support:** This includes legal and financing advisers, telecommunications, digital and transportation infrastructure, and entrepreneurship networking programmes.

These domains indicate whether there is a strong entrepreneurship support ecosystem and what actions should the government put in place to further encourage this ecosystem.

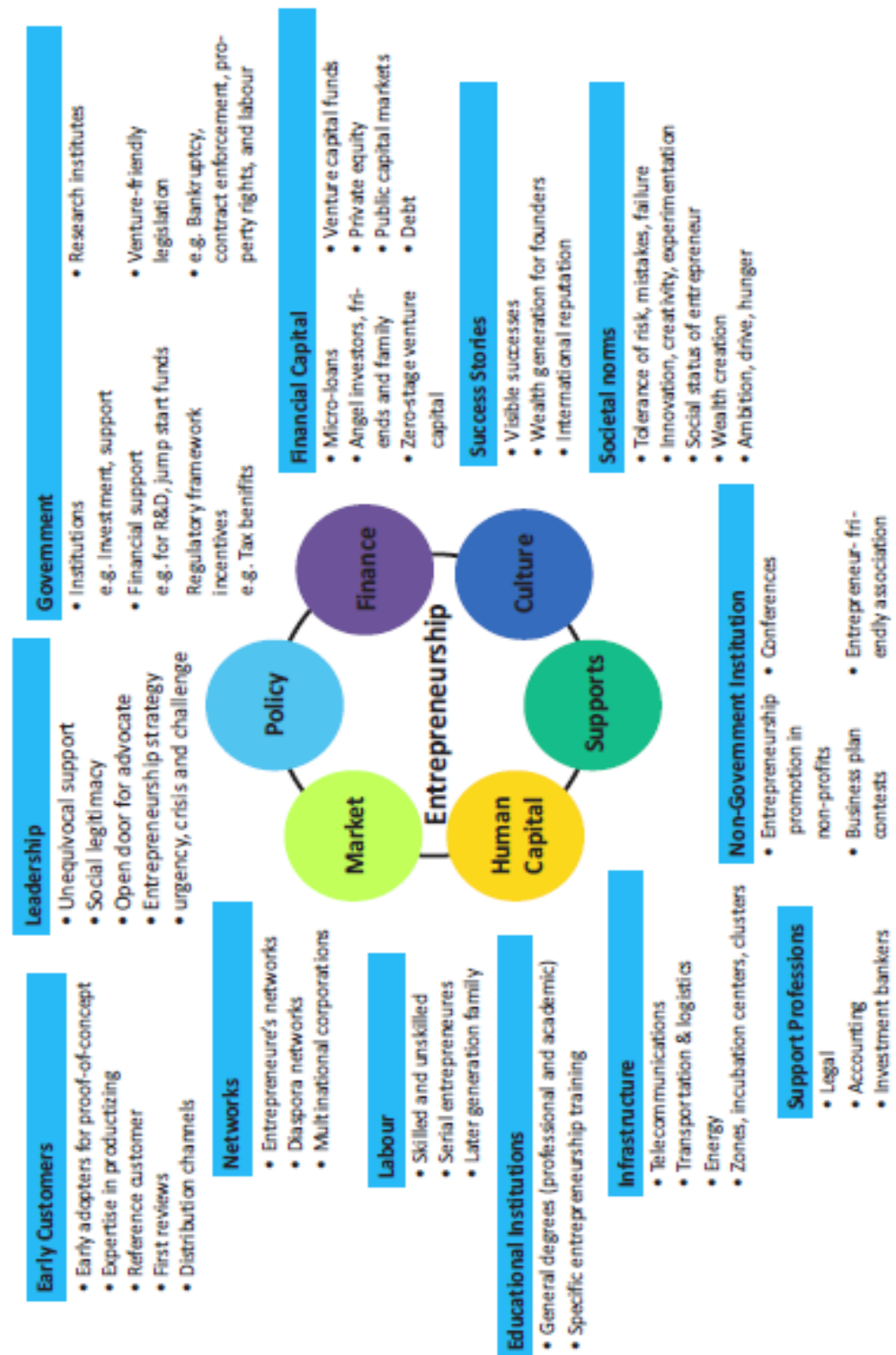The six domains and their various elements have been graphically depicted.

Early Customers
- Early adopters for proof-of-concept
- Expertise in productizing
- Reference customer
- First reviews
- Distribution channels

Leadership
- Unequivocal support
- Social legitimacy
- Open door for advocate
- Entrepreneurship strategy
- urgency, crisis and challenge

Government
- Institutions
  e.g. Investment, support
- Financial support
  e.g. for R&D, jump start funds
  Regulatory framework
  incentives
  e.g. Tax benifits
- Research institutes
- Venture-friendly legislation
- e.g. Bankruptcy, contract enforcement, property rights, and labour

Networks
- Entrepreneure's networks
- Diaspora networks
- Multinational corporations

Labour
- Skilled and unskilled
- Serial entrepreneures
- Later generation family

Financial Capital
- Micro-loans
- Angel investors, friends and family
- Zero-stage venture capital
- Venture capital funds
- Private equity
- Public capital markets
- Debt

Success Stories
- Visible successes
- Wealth generation for founders
- International reputation

Societal norms
- Tolerance of risk, mistakes, failure
- Innovation, creativity, experimentation
- Social status of entrepreneur
- Wealth creation
- Ambition, drive, hunger

Educational Institutions
- General degrees (professional and academic)
- Specific entrepreneurship training

Infrastructure
- Telecommunications
- Transportation & logistics
- Energy
- Zones, incubation centers, clusters

Support Professions
- Legal
- Accounting
- Investment bankers

Non-Government Institution
- Entrepreneurship promotion in non-profits
- Business plan contests
- Conferences
- Entrepreneur-friendly association

Entrepreneurship

Finance — Culture — Policy — Supports — Market — Human Capital

Fig.5.5.3. Entrepreneurship at a Glance

Every entrepreneurship support ecosystem is unique and all the elements of the ecosystem are interdependent. Although every region's entrepreneurship ecosystem can be broadly described by the above features, each ecosystem is the result of the hundred elements interacting in highly complex and particular ways.

Entrepreneurship ecosystems eventually become (largely) self-sustaining. When the six domains are resilient enough, they are mutually beneficial. At this point, government involvement can and should be significantly minimized. Public leaders do not need to invest a lot to sustain the ecosystem. It is imperative that the entrepreneurship ecosystem incentives are formulated to be self-liquidating, hence focussing on sustain ability of the environment.

Make in India Campaign

Every entrepreneur has certain needs. Some of their important needs are:
- To easily get loans
- To easily find investors
- To get tax exemptions
- To easily access resources and good infrastructure
- To enjoy a procedure that is free of hassles and is quick
- To be able to easily partner with other firms

The Make in India campaign, launched by Prime Minister Modi aims to satisfy all these needs of young,aspiring entrepreneurs. Its objective is to:
- Make investment easy
- Support new ideas
- Enhance skill development
- Safeguard the ideas of entrepreneurs
- Create state-of-the-art facilities for manufacturing goods

Key Schemes to Promote Entrepreneurs

The government offers many schemes to support entrepreneurs. These schemes are run by various Ministries/Departments of Government of India to support First Generation Entrepreneurs. Take a look at a few key schemes to promote entrepreneurship:

Sl. Name of the Scheme
1. Pradhan Mantri MUDRA Yojana - Micro Units Development and Refinance Agency (MUDRA),
2. STAND UP INDIA
3. Prime Minister Employment Generation Programme (PMEGP)
4. International Cooperation
5. Performance and Credit Rating
6. Marketing Assistance Scheme
7. Reimbursement of Registration Fee for Bar Coding
8. Enable Participation of MSMEs in State/District level Trade Fairs and Provide Funding Support
9. Capital Subsidy Support on Credit for Technology up gradation
10. Credit Guarantee Fund for Micro and Small Enterprise (CGFMSE)

11. Reimbursement of Certification Fees for Acquiring ISO Standards
12. Agricultural Marketing
13. Small Agricultural Marketing
14. Mega Food Park
15. Adivasi Mahila Sashaktikaran Yojana

1. **Pradhan Mantri MUDRA Yojana**, - Micro Units Development and Refinance Agency (MUDRA),

Description

Under the aegis support of Pradhan Mantra MUDRA Yojana, MUDRA has already created its initial products/schemes. The interventions have been named 'Shisha', 'Kishore' and 'Taren' to signify the stage of growth/development and funding needs of the beneficiary micro unit/entrepreneur and also provide a reference point for the next phase of graduation/growth to look forward to:
    a. Shisha: Covering loans up to Rs. 50,000/-
    b. Kishor: Covering loans above Rs. 50,000/- and up to Rs.5 lakh
    c. Tarun: Covering loans above Rs. 5 lakh to Rs.10 lakh

Who can apply?

Any Indian citizen who has a business plan for a non-farm sector income generating activity such as manufacturing, processing, trading or service sector and whose credit need is less than Rs.10 lakh can approach either a Bank, MFI, or NBFC for availing of MUDRA loans under Pradhan Mantri Mudra Yojana (PMMY).

2. **Stand Up India**

Description

The objective of the Standup India scheme is to facilitate bank loans between Rs.10 lakh and Rs.1 crore to at least one Schedule Caste (SC) or Scheduled Tribe (ST) borrower and at least one woman borrower per bank branch for setting up a Greenfield enterprise. This enterprise may be in manufacturing, services or the trading sector. In case of non-Individual enterprises at least 51% of the shareholding and controlling stake should be held be either an SC/ST or Woman Entrepreneur.

Who can apply?

ST, SC &Women

3. **Prime Minister Employment Generation Programme (PMEGP)**

Description

The Scheme is implemented by Khadi and Village Industries Commission (KVIC), as the nodal agency at the National level. At the State level, the Scheme is implemented through State KVIC Directorates, State Khadi and Village Industries Boards (KVIBs) and District Industries Centres (DICs) and banks. The Government subsidy under the Scheme is routed by KVIC through identified banks for eventual distribution to the beneficiaries/entrepreneurs in their bank accounts.

Nature of assistance

The maximum cost of the project/unit admissible under manufacturing sector is Rs.25 lakh and under business/service sector is Rs.10 lakh. Levels of funding under PMEGP

Categories of beneficiaries under PMEGP	Beneficiary's contribution of project cost)	Rate of Subsidy of project cost)	
rea (location of project/unit)		Urban	Rural
General Category	0%	15%	5%
Special (including SC / ST / OBC / Minorities / Women, Ex-servicemen, hysically handicapped, NER, Hill and Border reas, etc.	5%	25%	35%

The balance amount of the total project cost will be provided by Banks as term loan as well as working capital.

Who can apply?

Any individual, above 18 years of age. At least VIII standard pass for projects costing above Rs.10 lakh in the manufacturing sector and above Rs.5 lakh in the business/service sector. Only new projects are considered for sanction under PMEGP. Self Help Groups (including those belonging to BPL provided that they have not availed benefits under any other Scheme), Institutions registered under Societies Registration Act,1860; Production Co-operative Societies, and Charitable Trusts are also eligible. Existing Units (under PMRY, REGP or any other scheme of Government of India or State Government) and the units that have already availed Government Subsidy under any other scheme of Government of India or State Government are NOT eligible.

4. International Cooperation

Description

The Scheme would cover the following activities:
a. Deputation of MSME business delegations to other countries for exploring new areas of technology infusion/upgradation, facilitating joint ventures, improving market of MSMEs products, foreign collaborations, etc.
b. Participation by Indian MSMEs in international exhibitions, trade fairs and buyer-seller meets in foreign countries as well as in India, in which there is international participation.
c. Holding international conferences and seminars on topics and themes of interest to the MSME.

Nature of assistance

IC Scheme provides financial assistance towards the airfare and space rent of entrepreneurs. Assistance is provided on the basis of size and the type of the enterprise.

Who can apply?

a. State/Central Government Organisations;

b. Industry/Enterprise Associations; and

c. Registered Societies/Trusts and Organisations associated with the promotion and development of MSMEs

5.   Performance and Credit Rating for Micro and Small Enterprises

Description

The objective of the Scheme is to create awareness amongst micro & small enterprises about the strengths and weaknesses of their operations and also their credit worthiness.

Turn Over	Fee to be reimbursed by Ministry of MSME
Up to Rs.50 lacs	75% of the fee charged by the rating agency subject to a ceiling Rs. 15,000/-
Above Rs.50 lacs to Rs.200 Lacs	75% of the fee charged by the rating agency subject to a ceiling of Rs.30,0001-
Above Rs.200 lacs	75% of the fee charged by the rating agency subject

Nature of assistance

Who can apply?

Any enterprise registered in India as a micro or small enterprise is eligible to apply.

6.   Marketing Assistance Scheme

Description

The assistance is provided for the following activities:

a.   Organizing exhibitions abroad and participation in international exhibitions/trade fairs

b.   Co-sponsoring of exhibitions organized by other organisations/industry associations/agencies

c.   Organizing buyer-seller meets, intensive campaigns and marketing promotion events

Nature of assistance

Financial assistance of up to 95% of the airfare and space rent of entrepreneurs. Assistance is provided on the basis of size and the type of the enterprise. Financial assistance for co-sponsoring would be limited to 40% of the net expenditure, subject to maximum amount of Rs.5 lakh.

Who can apply?

MSMEs, Industry Associations and other organizations related to MSME sector.

7. Reimbursement of Registration Fee for Bar Coding

Description

The financial assistance is provided towards 75% reimbursement of only one-time registration fee and 75% of annual recurring fee for first three years paid by MSEs to GS1 India for using bar coding.

Nature of assistance

Funding support for reimbursement of 75% of one time and recurring bar code registration fees.

Who can apply?

All MSMEs with EM registration.

8. Enabling Participation of MSMEs in State/District Level Trade Fairs and Provide Funding Support

Description

Provide marketing platform to manufacturing MSMEs by enabling their participation in state/district level exhibitions being organized by state/district authorities/associations.

Nature of assistance

1. Free registration for participating in trade fairs
Note: *The selection of participants would be done by the MSME-DIs post the submission of application.*

2. Reimbursement of 50% of to and fro actual fare by shortest distance/direct train (limited to AC II tier class) from the nearest railway station/bus fare to the place of exhibition and 50% space rental charges for MSMEs (General category entrepreneurs).

3. For Women/SC/ST entrepreneurs & entrepreneurs from North Eastern Region Govt. of India will reimburse 80% of items listed above in Point (2).

Note: The total reimbursement will be max. Rs. 30,000/- per unit for the SC/ST/Women/Physically Handicapped entrepreneurs, while for the other units the max. limit will be Rs. 20,000/- per person per MSME unit.

Note: *The participant is required to submit follow-up proofs post attending the event to claim reimbursement. The proofs can be submitted after logging in online under the section "My Applications" or directly contacting a DI office.*

Who can apply?

All MSMEs with EM registration.

9. Capital Subsidy Support on Credit for Technology Upgradation

Description

MSMEs can get a capital subsidy (~15%) on credit availed for technology upgradation.

Nature of assistance

Financial assistance for availing credit and loan.

Who can apply?

1. Banks and financial institutions can apply to DC-MSME for availing support.

2. MSMEs need to directly contact the respective banks for getting credit and capital subsidy.

How to apply?

If you are a financial institution, click on the "Apply Now" button or else you can also directly contact the Office of DC-MSME. You can view the contact details of Office of DC-MSME. If you are an MSME, directly contact the respective banks/financial institutions as listed in the scheme guidelines.

10. Provision of Collateral Free Credit for MSMEs

Description

Banks and financial institutions are provided funding assistance under this scheme so that they can in turn lend collateral free credit to MSMEs.

Nature of assistance

Funding support to banks and financial institutions for lending collateral-free credit to MSMEs.

Who can apply?

Banks and financial institutions can apply to office of DC-MSME/MSME-DIs for availing support. MSMEs need to directly contact the respective banks for getting credit.

11. Reimbursement of certification fees for acquiring ISO standards

ISO 9000/ISO 14001 Certification Reimbursement.

Description

The GoI assistance will be provided for one-time reimbursement of expenditure to such MSME manufacturing units which acquire ISO 18000/ISO 22000/ISO 27000 certification.

Nature of assistance

Reimbursement of expenditure incurred on acquiring ISO standards.

Who can apply?

MSMEs with EM registration.

12. Agricultural Marketing

Description

A capital investment subsidy for construction/renovation of rural godowns . Creation of scientific storage capacity and prevention of distress sale.

Nature of assistance

Subsidy @ 25% to farmers, 15% of project cost to companies.

Who can apply?

NGOs, SHGs, companies, co-operatives.

13. Small Agricultural Marketing

Description

Business development description provides venture capital assistance in the form of equity, and arranges training and visits of agri-preneurs.

Farmers' Agriculture Business Consortium

Business development description provides venture capital assistance in the form of equity, and arranges training and visits of agri-preneurs.

Nature of assistance

Financial assistance with a ceiling of Rs.5 lakh.

Who can apply?

Individuals, farmers, producer groups, partnership/propriety firms, SGHs, agri-preneurs, etc**.**

14. Mega Food Park

Description

Mechanism to link agricultural production and market to maximize value addition, enhance farmer's income, create rural employment.

Nature of assistance

One-time capital grant of 50% of project cost with a limit of Rs.50 crore.

Who can apply?

Farmers, farmer groups, SHGs.

15. Adivasi Mahila Sashaktikaran Yojana

Description

Concessional scheme for the economic development of ST women.

Nature of assistance

Term loan at concessional rates up to 90% of cost of scheme.

Who can apply?

Scheduled Tribes Women.

Tips

- Research the existing market, network with other entrepreneurs, venture capitalists, angel investors, and thoroughly review the policies in place to enable your entrepreneurship.
- Failure is a stepping stone and not the end of the road. Review yours and your peers' errors and correct them in your future venture.
- Be proactive in your ecosystem. Identify the key features of your ecosystem and enrich them to ensure self-sustainability of your entrepreneurship support ecosystem.

5.5.7 Risk Appetite & Resilience: Entrepreneurship and Risk

Entrepreneurs are inherently risk takers. They are path-makers not path-takers. Unlike a normal, cautious person, an entrepreneur would not think twice about quitting his job (his sole income) and taking a risk on himself and his idea.

An entrepreneur is aware that while pursuing his dreams, assumptions can be proven wrong and unforeseen events may arise. He knows that after dealing with numerous problems, success is still not guaranteed. Entrepreneurship is synonymous with the ability to take risks. This ability, called risk-appetite, is an entrepreneurial trait that is partly genetic and partly acquired.

What is Risk Appetite?

Risk appetite is defined as the extent to which a company is equipped to take risk, in order to achieve its objectives. Essentially, it refers to the balance, struck by the company, between possible profits and the hazards caused by changes in the environment (economic ecosystem, policies, etc.). Taking on more risk may lead to higher rewards but have a high probability of losses as well. However, being too conservative may go against the company as it can miss out on good opportunities to grow and reach their objectives. The levels of risk appetite can be broadly categorized as "low", "medium" and "high." The company's entrepreneur(s) have to evaluate all potential alternatives and select the option most likely to succeed. Companies have varying levels of risk appetites for different objectives.

The levels depend on:
• The type of industry
• Market pressures
• Company objectives

For example, a start-up with a revolutionary concept will have a very high risk appetite. The start-up can afford short term failures before it achieves longer term success. This type of appetite will not remain constant and will be adjusted to account for the present circumstances of the company.

Risk Appetite Statement

Companies have to define and articulate their risk appetite in sync with decisions made about their objectives and opportunities. The point of having a risk appetite statement is to have a framework that clearly states the acceptance and management of risk in business. It sets risk taking limits within the company. The risk appetite statement should convey the following:
• The nature of risks the business faces.
• Which risks the company is comfortable taking on and which risks are unacceptable.
• The nature of risks the business faces.
• Which risks the company is comfortable taking on and which risks are unacceptable.
• How much risk to accept in all the risk categories.
• The desired trade-off between risk and reward.
• Measures of risk and methods of examining and regulating risk exposures.

Entrepreneurship and Resilience

Entrepreneurs are characterized by a set of qualities known as resilience. These qualities play an especially large role in the early stages of developing an enterprise. Risk resilience is an extremely valuable characteristic as it is believed to protect entrepreneurs against the threat of challenges and changes in the business environment.

What is Entrepreneurial Resilience?

Resilience is used to describe individuals who have the ability to overcome setbacks related to their life and career aspirations. A resilient person is someone who is capable of easily and quickly recovering from setbacks. For the entrepreneur, resilience is a critical trait. Entrepreneurial resilience can be enhanced in the following ways:

- By developing a professional network of coaches and mentors
- By accepting that change is a part of life
- By viewing obstacles as something that can be overcome

Characteristics of a Resilient Entrepreneur

The characteristics required to make an entrepreneur resilient enough to go the whole way in their business enterprise are:

- A strong internal sense of control
- Ability to diversify and expand
- Strong social connections
- Survivor attitude

- Skill to learn from setbacks
- Cash-flow conscious habits
- Ability to look at the bigger picture
- Attention to detail

Tips

- Cultivate a great network of clients, suppliers, peers, friends and family. This will not only help you promote your business, but will also help you learn, identify new opportunities and stay tuned to changes in the market.
- Don't dwell on setbacks. Focus on what you need to do next to get moving again.
- While you should try, and curtail expenses, ensure that it is not at the cost of your growth.

5.5.8 Success & Failures: Understanding Successes and Failures in Entrepreneurship

Shyam is a famous entrepreneur, known for his success story. But what most people don't know, is that Shyam failed numerous times before his enterprise became a success. Read his interview to get an idea of what entrepreneurship is really about, straight from an entrepreneur who has both, failed and succeeded.

Interviewer: Shyam, I have heard that entrepreneurs are great risk-takers who are never afraid of failing. Is this true?

Shyam: Ha ha, no of course it's not true! Most people believe that entrepreneurs need to be fearlessly enthusiastic. But the truth is, fear is a very normal and valid human reaction, especially when you are planning to start your own business! In fact, my biggest fear was the fear of failing. The reality is, entrepreneurs fail as much as they succeed. The trick is to not allow the fear of failing to stop you from going ahead with your plans. Remember, failures are lessons for future success!

Interviewer: What, according to you, is the reason that entrepreneurs fail?

Shyam: Well, there is no one single reason why entrepreneurs fail. An entrepreneur can fail due to numerous reasons. You could fail because you have allowed your fear of failure to defeat you. You could fail because you are unwilling to delegate (distribute) work. As the saying goes, "You can do anything, but not everything!" You could fail because you gave up too easily – maybe you were not persistent enough. You could fail because you were focusing your energy on small, insignificant tasks and ignoring the tasks that were most important. Other reasons for failing are partnering with the wrong people, not being able to sell your product to the right customers at the right time at the right price… and many more reasons!

Interviewer: As an entrepreneur, how do you feel failure should be looked at?

Shyam: I believe we should all look at failure as an asset, rather than as something negative. The way I see it, if you have an idea, you should try to make it work, even if there is a chance that you will fail. That's because not trying is failure right there, anyway! And failure is not the worst thing that can happen. I think having regrets because of not trying, and wondering 'what if' is far worse than trying and actually failing.

Interviewer: How did you feel when you failed for the first time?

Shyam: I was completely heartbroken! It was a very painful experience. But the good news is, you do recover from the failure. And with every subsequent failure, the recovery process gets a lot easier. That's because you start to see each failure more as a lesson that will eventually help you succeed, rather than as an obstacle that you cannot overcome. You will start to realize that failure has many benefits.

Interviewer: Can you tell us about some of the benefits of failing?

Shyam: One of the benefits that I have experienced personally from failing is that the failure made me see things in a new light. It gave me answers that I didn't have before. Failure can make you a lot stronger. It also helps keep your ego in control.

Interviewer: What advice would you give entrepreneurs who are about to start their own enterprises?

Shyam: I would tell them to do their research and ensure that their product is something that is actually wanted by customers. I'd tell them to pick their partners and employees very wisely and cautiously. I'd tell them that it's very important to be aggressive – push and market your product as aggressively as possible. I would warn them that starting an enterprise is very expensive and that they should be prepared for a situation where they run out of money. I would tell them to create long term goals and put a plan in action to achieve that goal. I would tell them to build a product that is truly unique. Be very careful and ensure that you are not copying another start-up. Lastly, I'd tell them that it's very important that they find the right investors.

Interviewer: That's some really helpful advice, Shyam! I'm sure this will help all entrepreneurs to be more prepared before they begin their journey! Thank you for all your insight!

Tips

- Remember that nothing is impossible.
- Identify your mission and your purpose before you start.
- Plan your next steps – don't make decisions hastily.

UNIT 5.6: Preparing to be an Entrepreneur

Unit Objectives ◎

At the end of this unit, you will be able to:

1. Discuss how market research is carried out
2. Describe the 4 Ps of marketing
3. Discuss the importance of idea generation
4. Recall basic business terminology
5. Discuss the need for CRM
6. Discuss the benefits of CRM
7. Discuss the need for networking
8. Discuss the benefits of networking
9. Discuss the importance of setting goals
10. Differentiate between short-term, medium-term and long-term goals
11. Discuss how to write a business plan
12. Explain the financial planning process
13. Discuss ways to manage your risk
14. Describe the procedure and formalities for applying for bank finance
15. Discuss how to manage your own enterprise
16. List important questions that every entrepreneur should ask before starting an enterprise

5.6.1 Market Study / The 4 Ps of Marketing / Importance of an IDEA: Understanding Market Research

Market research is the process of gathering, analysing and interpreting market information on a product or service that is being sold in that market. It also includes information on:

*   Past, present and prospective customers
*   Customer characteristics and spending habits
*   The location and needs of the target market
*   The overall industry
*   Relevant competitors

Market research involves two types of data:

*   Primary information. This is research collected by yourself or by someone hired by you.
*   Secondary information. This is research that already exists and is out there for you to find and use.

Primary research

Primary research can be of two types:

*   Exploratory: This is open-ended and usually involves detailed, unstructured interviews.
*   Specific: This is precise and involves structured, formal interviews. Conducting specific

Secondary research

Secondary research uses outside information. Some common secondary sources are:

- **Public sources:** These are usually free and have a lot of good information. Examples are government departments, business departments of public libraries etc.
- **Commercial sources:** These offer valuable information but usually require a fee to be paid. Examples are research and trade associations, banks and other financial institutions etc.
- **Educational institutions:** These offer a wealth of information. Examples are colleges, universities, technical institutes etc.

The 4 Ps of Marketing

The 4 Ps of marketing are Product, Price, Promotion and Place. Let's look at each of these 4 Ps in detail.

Product

A product can be:

- A tangible good
- An intangible service

Whatever your product is, it is critical that you have a clear understanding of what you are offering, and what its unique characteristics are, before you begin with the marketing process.

Some questions to ask yourself are:

- What does the customer want from the product/service?
- What needs does it satisfy?
- Are there any more features that can be added?
- Does it have any expensive and unnecessary features?

- How will customers use it?
- What should it be called?
- How is it different from similar products?
- How much will it cost to produce?

Price

Once all the elements of Product have been established, the Price factor needs to be considered. The Price of a Product will depend on several factors such as profit margins, supply, demand and the marketing strategy.

Some questions to ask yourself are:

- What is the value of the product/service to customers?
- Do local products/services have established price points?

- Is the customer price sensitive?
- Should discounts be offered?
- How is your price compared to that of your competitors?

Promotion

Once you are certain about your Product and your Price, the next step is to look at ways to promote it. Some key elements of promotion are advertising, public relations, social media marketing, email marketing, search engine marketing, video marketing and more.
Some questions to ask yourself are:

- Where should you promote your product or service?

- When would be the best time to promote your product?

- What is the best medium to use to reach your target audience

- How are your competitors promoting their products?

Place

According to most marketers, the basis of marketing is about offering the right product, at the right price, at the right place, at the right time. For this reason, selecting the best possible location is critical for converting prospective clients into actual clients.

Some questions to ask yourself are:

- Will your product or service be looked for in a physical store, online or both?

- Where are your competitors offering their products or services?

- What should you do to access the most appropriate distribution channels?

- Should you follow in your competitors' footsteps?

- Will you require a sales force?

- Should you do something different from your competitors?

Importance of an IDEA

Some questions to ask yourself are:
Ideas are the foundation of progress. An idea can be small or ground-breaking, easy to accomplish or extremely complicated to implement. Whatever the case, the fact that it is an idea gives it merit. Without ideas, nothing is possible. Most people are afraid to speak out their ideas, out for fear of being ridiculed. However, if are an entrepreneur and want to remain competitive and innovative, you need to bring your ideas out into the light.
Some ways to do this are by:

- Establishing a culture of brainstorming where you invite all interested parties to contribute
- Discussing ideas out loud so that people can add their ideas, views, opinions to them
- Being open minded and not limiting your ideas, even if the idea who have seems ridiculous
- Not discarding ideas that you don't work on immediately, but instead making a note of them and shelving them so they can be revisited at a later date.

Tips

- Keep in mind that good ideas do not always have to be unique.
- Remember that timing plays a huge role in determining the success of your idea.
- Situations and circumstances will always change, so be flexible and adapt your idea accordingly.

5.6.2 Business Entity Concepts: Basic Business Terminology

If your aim is to start and run a business, it is crucial that you have a good understanding of basic business terms. Every entrepreneur should be well versed in the following terms:

- Accounting: A systematic method of recording and reporting financial transactions.
- Accounts payable: Money owed by a company to its creditors.
- Accounts Receivable: The amount a company is owed by its clients.
- Assets: The value of everything a company owns and uses to conduct its business.
- Balance Sheet: A snapshot of a company's assets, liabilities and owner's equity at a given moment.
- Bottom Line: The total amount a business has earned or lost at the end of a month.
- Business: An organization that operates with the aim of making a profit.
- Business to Business (B2B): A business that sells goods or services to another business.
- Business to Consumer (B2C): A business that sells goods or services directly to the end user.
- Capital: The money a business has in its accounts, assets and investments. The two main types of capital are debt and equity.
- Cash Flow: The overall movement of funds through a business each month, including income and expenses.
- Cash Flow Statement: A statement showing the money that entered and exited a business during a specific period of time.
- Contract: A formal agreement to do work for pay.
- Depreciation: The degrading value of an asset over time.
- Expense: The costs that a business incurs through its operations.
- Finance: The management and allocation of money and other assets.
- Financial Report: A comprehensive account of a business' transactions and expenses.
- Fixed Cost: A one-time expense.
- Income Statement (Profit and Loss Statement): Shows the profitability of a business during a period of time.
- Liabilities: The value of what a business owes to someone else.
- Marketing: The process of promoting, selling and distributing a product or service.
- Net Income/Profit: Revenues minus expenses.
- Net Worth: The total value of a business.
- Payback Period: The amount of time it takes to recover the initial investment of a business.
- Profit Margin: The ratio of profit, divided by revenue, displayed as a percentage.

- Return on Investment (ROI): The amount of money a business gets as return from an investment.
- Revenue: The total amount of income before expenses are subtracted.
- Sales Prospect: A potential customer.
- Supplier: A provider of supplies to a business.
- Target Market: A specific group of customers at which a company's products and services are aimed.
- Valuation: An estimate of the overall worth of the business.
- Variable Cost: Expenses that change in proportion to the activity of a business.
- Working Capital: Calculated as current assets minus current liabilities.
- Business Transactions: There are three types of business transactions. These are:
  o Simple Transactions – Usually a single transaction between a vendor and a customer. For example: Buying a cup of coffee.
  o Complex Transactions – These transactions go through a number of events before they can be completed. For example: Buying a house.
  o Ongoing transactions – These transactions usually require a contract. For example: Contract with a vendor.

Basic Accounting Formulas

Take a look at some important accounting formula that every entrepreneur needs to know.

1. **The Accounting Equation**: This is value of everything a company owns and uses to conduct its business.

Formula: Assets = Liability + Owner's Equity

2. **Net Income**: This is the profit of the company.

Formula: Net Income = Revenues – Expenses

3. **Break-Even Point**: This is the point at which the company will not make a profit or a loss. The total cost and total revenues are equal.

Formula: Break-Even = Fixed Costs/Sales Price – Variable Cost per Unit

4. **Cash Ratio**: This tells us about the liquidity of a company.

Formula: Cash Ratio = Cash/Current Liabilities

5. **Profit Margin:** This is shown as a percentage. It shows what percentage of sales are left over after all the expenses are paid by the business.
Formula: Profit Margin = Net Income/Sales

6. **Debt-to-Equity Ratio:** This ratio shows how much equity and debt a company is using to finance its assets, and whether the shareholder equity can fulfil obligations to creditors if the business starts making a loss.
Formula: Debt-to-Equity Ratio = Total Liabilities/Total Equity

7. **Cost of Goods Sold**: This is the total of all costs used to create a product or service, which has been sold.
Formula: Cost of Goods Sold = Cost of Materials/Inventory – Cost of Outputs

8. **Return on Investment (ROI)**: This is usually shown as a percentage. It calculates the profits of an investment as a percentage of the original cost.
Formula: ROI = Net Profit/Total Investment * 100

9. **Simple Interest**: This is money you can earn by initially investing some money (the principal).

Formula:

A = P(1 + rt); R = r * 100

Where:

A = Total Accrued Amount (principal + interest)

P = Principal Amount

I = Interest Amount

r = Rate of Interest per year in decimal; r = R/100

t = Time Period involved in months or years

10. **Annual Compound Interest**: This calculates the addition of interest to the principal sum of a loan or deposit.

Formula:

A = P (1 + r/n) ^ nt:

Where:

A = the future value of the investment/loan, including interest

P = the principal investment amount (the initial deposit or loan amount)

r = the annual interest rate (decimal)

n = the number of times that interest is compounded per year

t = the number of years the money is invested or borrowed for

5.6.3 CRM & Networking: What is CRM?

CRM stands for Customer Relationship Management. Originally the expression Customer Relationship Management meant managing one's relationship with customers. However, today it refers to IT systems and software designed to help companies manage their relationships.

The Need for CRM

The better a company can manage its relationships with its customers, the higher the chances of the company's success.

For any entrepreneur, the ability to successfully retain existing customers and expand the enterprise is paramount. This is why IT systems that focus on addressing the problems of dealing with customers on a daily basis are becoming more and more in demand.

Customer needs change over time, and technology can make it easier to understand what customers really want. This insight helps companies to be more responsive to the needs of their customers. It enables them to modify their business operations when required, so that their customers are always served in the best manner possible. Simply put, CRM helps companies recognize the value of their clients and enables them to capitalize on improved customer relations.

Benefits of CRM

CRM has a number of important benefits:
- It helps improve relations with existing customers which can lead to:
  - Increased sales

- o   Identification of customer needs
- o   Cross-selling of products
- It results in better marketing of one's products or services
- It results in better marketing of one's products or services
- It enhances customer satisfaction and retention
- It improves profitability by identifying and focusing on the most profitable customers

What is Networking?

In business, networking means leveraging your business and personal connections in order to bring in a regular supply of new business. This marketing method is effective as well as low cost. It is a great way to develop sales opportunities and contacts. Networking can be based on referrals and introductions, or can take place via phone, email, and social and business networking websites.

The Need for Networking

Networking is an essential personal skill for business people, but it is even more important for entrepreneurs. The process of networking has its roots in relationship building. Networking results in greater communication and a stronger presence in the entrepreneurial ecosystem. This helps build strong relationships with other entrepreneurs. Business networking events held across the globe play a huge role in connecting like-minded entrepreneurs who share the same fundamental beliefs in communication, exchanging ideas and converting ideas into realities. Such networking events also play a crucial role in connecting entrepreneurs with potential investors. Entrepreneurs may have vastly different experiences and backgrounds but they all have a common goal in mind – they all seek connection, inspiration, advice, opportunities and mentors. Networking offers them a platform to do just that.

Benefits of Networking

Networking offers numerous benefits for entrepreneurs. Some of the major benefits are:

- Getting high quality leads
- Increased business opportunities
- Good source of relevant connections
- Advice from like-minded entrepreneurs
- Gaining visibility and raising your profile

- Meeting positive and enthusiastic people
- Increased self-confidence
- Satisfaction from helping others
- Building strong and lasting friendships

x

- Your Products/Services: Describe the products or services provided.
- Financial Information: Provide details on current bank and investors.
- Summarize future plans: Describe where you see your business in the future.

Business Description

The second section of your business plan needs to provide a detailed review of the different elements of your business. This will help potential investors to correctly understand your business goal and the uniqueness of your offering.
Your Business Description should include:
- A description of the nature of your business
- The market needs that you are aiming to satisfy
- The ways in which your products and services meet these needs
- The specific consumers and organizations that you intend to serve
- Your specific competitive advantages

Market Analysis

The market analysis section usually follows the business description. The aim of this section is to showcase your industry and market knowledge. This is also the section where you should lay down your research findings and conclusions.

Your Market Analysis should include:

- Your industry description and outlook
- The amount of market share you want to capture

- Information on your target market
- Your pricing structure

- The needs and demographics of your target audience
- Your competitive analysis

- The size of your target market
- Any regulatory requirements

Organization & Management
This section should come immediately after the Market Analysis.
Your Organization & Management section should include:

- Your company's organizational structure
- Detailed descriptions of each division/department and its function

- Details of your company's ownership
- The salary and benefits package that you offer your people

- Details of your management team

- Qualifications of your board of directors

Service or Product Line

The next section is the service or product line section. This is where you describe your service or product, and stress on their benefits to potential and current customers. Explain in detail why your product of choice will fulfil the needs of your target audience.

Your Service or Product Line section should include:
• A description of your product/service
• A description of your product or service's life cycle
• A list of any copyright or patent filings
• A description of any R&D activities that you are involved in or planning

Marketing & Sales

Once the Service or Product Line section of your plan has been completed, you should start on the description of the marketing and sales management strategy for your business.

Your Marketing section should include the following strategies:

• **Market penetration strategy:** This strategy focuses on selling your existing products or services in existing markets, in order to increase your market share.
• **Growth strategy:** This strategy focuses on increasing the amount of market share, even if it reduces earnings in the short-term.
• **Channels of distribution strategy:** These can be wholesalers, retailers, distributers and even the internet.
• **Communication strategy:** These can be written strategies (e-mail, text, chat), oral strategies (phone calls, video chats, face-to-face conversations), non-verbal strategies (body language, facial expressions, tone of voice) and visual strategies (signs, webpages, illustrations).

Your Sales section should include the following information:

• **A salesforce strategy:** This strategy focuses on increasing the revenue of the enterprise.
• **A breakdown of your sales activities:** This means detailing out how you intend to sell your products or services – will you sell it offline or online, how many units do you intend to sell, what price do you plan to sell each unit at, etc.

Funding Request

This section is specifically for those who require funding for their venture.

The Funding Request section should include the following information:

• How much funding you currently require.
• How much funding you will require over the next five years. This will depend on your long-term goals.
• The type of funding you want and how you plan to use it. Do you want funding that can be used only for a specific purpose, or funding that can be used for any kind of requirement?
• Strategic plans for the future. This will involve detailing out your long-term plans – what these plans are and how much money you will require to put these plans in motions.
• Historical and prospective financial information. This can be done by creating and maintaining all your financial records, right from the moment your enterprise started, to the present day. Documents required for this are your balance sheet which contains details of your company's assets and liabilities, your income statement which lists your company's revenues, expenses and net income for the year, your tax returns (usually for the last three years) and your cash flow budget which lists the cash that came in, the cash that went out and states whether you had a cash deficit (negative balance) or surplus (positive balance) at the end of each month.

Financial Planning

Before you begin building your enterprise, you need to plan your finances. Take a look at the steps for financial planning:

Step 1: Create a financial plan. This should include your goals, strategies and timelines for accomplishing these goals.

Step 2: Organize all your important financial documents. Maintain a file to hold your investment details, bank statements, tax papers, credit card bills, insurance papers and any other financial records.

Step 3: Calculate your net worth. This means figure out what you own (assets like your house, bank accounts, investments etc.), and then subtract what you owe (liabilities like loans, pending credit card amounts etc.) the amount you are left with is your net worth.

Step 4: Make a spending plan. This means write down in detail where your money will come from, and where it will go.

Step 5: Build an emergency fund. A good emergency fund contains enough money to cover at least 6 months' worth of expenses.

Step 6: Set up your insurance. Insurance provides long term financial security and protects you against risk.

Risk Management

As an entrepreneur, it is critical that you evaluate the risks involved with the type of enterprise that you want to start, before you begin setting up your company. Once you have identified potential risks, you can take steps to reduce them. Some ways to manage risks are:

- Research similar business and find out about their risks and how they were minimized.
- Evaluate current market trends and find out if similar products or services that launched a while ago are still being well received by the public.
- Think about whether you really have the required expertise to launch your product or service.
- Examine your finances and see if you have enough income to start your enterprise.
- Be aware of the current state of the economy, consider how the economy may change over time, and think about how your enterprise will be affected by any of those changes.
- Create a detailed business plan.

Tips

- Ensure all the important elements are covered in your plan.
- Scrutinize the numbers thoroughly.
- Be conservative in your approach and your projections.
- Use visuals like charts, graphs and images wherever possible.

5.6.5 Procedure and Formalities for Bank Finance: The Need for Bank Finance

For entrepreneurs, one of the most difficult challenges faced involves securing funds for start-ups. With numerous funding options available, entrepreneurs need to take a close look at which funding methodology works best for them. In India, banks are one of the largest funders of start-ups, offering funding to thousands of start-ups every year.

What Information Should Entrepreneurs Offer Banks for Funding?

When approaching a bank, entrepreneurs must have a clear idea of the different criteria that banks use to screen, rate and process loan applications. Entrepreneurs must also be aware of the importance of providing banks with accurate and correct information. It is now easier than ever for financial institutions to track any default behaviour of loan applicants. Entrepreneurs looking for funding from banks must provide banks with information relating to their general credentials, financial situation and guarantees or collaterals that can be offered.

General Credentials

This is where you, as an entrepreneur, provide the bank with background information on yourself. Such information includes:

- Letter(s) of Introduction: This letter should be written by a respected business person who knows you well enough to introduce you. The aim of this letter is set across your achievements and vouch for your character and integrity.
- Your Profile: This is basically your resume. You need to give the bank a good idea of your educational achievements, professional training, qualifications, employment record and achievements.
- Business Brochure: A business brochure typically provides information on company products, clients, how long the business has been running for etc.
- Bank and Other References: If you have an account with another bank, providing those bank references is a good idea.
- Proof of Company Ownership or Registration: In some cases, you may need to provide the bank with proof of company ownership and registration. A list of assets and liabilities may also be required.

Financial Situation

Banks will expect current financial information on your enterprise. The standard financial reports you should be prepared with are:

- Balance Sheet
- Cash-Flow Statement
- Business Plan

- Profit-and-Loss Account
- Projected Sales and Revenues
- Feasibility Study

Guarantees or Collaterals

Usually banks will refuse to grant you a loan without security. You can offer assets which the bank can seize and sell off if you do not repay the loan. Fixed assets like machinery, equipment, vehicles etc. are also considered to be security for loans.

The Lending Criteria of Banks

Your request for funding will have a higher chance of success if you can satisfy the following lending criteria:

- Good cash flow
- Adequate shareholders' funds
- Adequate security
- Experience in business
- Good reputation

The Procedure

To apply for funding the following procedure will need to be followed.

1. Submit your application form and all other required documents to the bank.
2. The bank will carefully assess your credit worthiness and assign ratings by analysing your business information with respect to parameters like management, financial, operational and industry information as well as past loan performance.
3. The bank will make a decision as to whether or not you should be given funding.

Tips

- Get advice on funding options from experienced bankers.
- Be cautious and avoid borrowing more than you need, for longer than you need, at an interest rate that is higher than you are comfortable with.

5.6.6 Enterprise Management - An Overview: How to Manage Your Enterprise?

To manage your enterprise effectively you need to look at many different aspects, right from managing the day-to-day activities to figuring out how to handle a large-scale event. Let's take a look at some simple steps to manage your company effectively.

Step 1: Use your leadership skills and ask for advice when required.

Let's take the example of Ramu, an entrepreneur who has recently started his own enterprise. Ramu has good leadership skills – he is honest, communicates well, knows how to delegate work etc. These leadership skills definitely help Ramu in the management of his enterprise. However, sometimes Ramu comes across situations that he is unsure how to handle. What should Ramu do in this case? One solution is for him to find a more experienced manager who is willing to mentor him. Another solution is for Ramu to use his networking skills so that he can connect with managers from other organizations, who can give him advice on how to handle such situations.

Step 2: Divide your work amongst others – realize that you cannot handle everything yourself.

Even the most skilled manager in the world will not be able to manage every single task that an enterprise will demand of him. A smart manager needs to realize that the key to managing his enterprise lies in his dividing all his work between those around him. This is known as delegation. However, delegating is not enough. A manager must delegate effectively if he wants to see results. This is important because delegating, when done incorrectly, can result in you creating even more work for yourself. To delegate effectively, you can start by making two lists. One list should contain the things that you know you need to handle yourself. The second list should contain the things that you are confident can be given to others to manage and handle.

Besides incorrect delegation, another issue that may arise is over-delegation. This means giving away too many of your tasks to others. The problem with this is, the more tasks you delegate, the more time you will spend tracking and monitoring the work progress of those you have handed the tasks to. This will leave you with very little time to finish your own work.

Step 3: Hire the right people for the job.

Hiring the right people goes a long way towards effectively managing your enterprise. To hire the best people suited for the job, you need to be very careful with your interview process. You should ask potential candidates the right questions and evaluate their answers carefully. Carrying out background checks is always a good practice. Running a credit check is also a good idea, especially if the people you are planning to hire will be handling your money. Create a detailed job description for each role that you want filled and ensure that all candidates have a clear and correct understanding of the job description. You should also have an employee manual in place, where you put down every expectation that you have from your employees. All these actions will help ensure that the right people are approached for running your enterprise.

Step 4: Motivate your employees and train them well.

Your enterprise can only be managed effectively if your employees are motivated to work hard for your enterprise. Part of being motivated involves your employees believing in the vision and mission of your enterprise and genuinely wanting to make efforts towards pursuing the same. You can motivate your employees with recognition, bonuses and rewards for achievements. You can also motivate them by telling them about how their efforts have led to the company's success. This will help them feel pride and give them a sense of responsibility that will increase their motivation. Besides motivating your people, your employees should be constantly trained in new practices and technologies. Remember, training is not a one-time effort. It is a consistent effort that needs to be carried out regularly.

Step 5: Train your people to handle your customers well.

Your employees need to be well-versed in the art of customer management. This means they should be able to understand what their customers want, and also know how to satisfy their needs. For them to truly understand this, they need to see how you deal effectively with customers.

This is called leading by example. Show them how you sincerely listen to your clients and the efforts that you put into understand their requirements. Let them listen to the type of questions that you ask your clients so they understand which questions are appropriate.

Step 6: Market your enterprise effectively.

Also, hire a marketing agency if you feel you need help in this area. Now that you know what is required to run your enterprise effectively, put these steps into play, and see how much easier managing your enterprise becomes!

Tips

- Get advice on funding options from experienced bankers.
- Be cautious and avoid borrowing more than you need, for longer than you need, at an interest rate that is higher than you are comfortable with.

5.6.7 20 Questions to Ask Yourself before Considering Entrepreneurship

1. Why am I starting a business?

2. What problem am I solving?

3. Have others attempted to solve this problem before? Did they succeed or fail?

4. Do I have a mentor or industry expert that I can call on?

5. Who is my ideal customer?

6. Who are my competitors?

7. What makes my business idea different from other business ideas?

8. What are the key features of my product or service?

9. Have I done a SWOT analysis?

10. What is the size of the market that will buy my product or service?

11. What would it take to build a minimum viable product to test the market?

12. How much money do I need to get started?

13. Will I need to get a loan?

14. How soon will my products or services be available?

15. When will I break even or make a profit?

16. How will those who invest in my idea make a profit?

17. How should I set up the legal structure of my business?

18. What taxes will I need to pay?

19. What kind of insurance will I need?

20. Have I reached out to potential customers for feedback?

Tips

- It is very important to validate your business ideas before you invest significant time, money and resources into it.
- The more questions you ask yourself, the more prepared you will be to handle to highs and lows of starting an enterprise.

Footnotes:

1. A mentor is a trusted and experienced person who is willing to coach and guide you.
2. A customer is someone who buys goods and/or services.
3. A competitor is a person or company that sells products and/or services similar to your products and/or services.
4. SWOT stands for Strengths, Weaknesses, Opportunities and Threats. To conduct a SWOT analysis of your company, you need to list down all the strengths and weaknesses of your company, the opportunities that are present for your company and the threats faced by your company.
5. A minimum viable product is a product that has the fewest possible features, that can be sold to customers, for the purpose of getting feedback from customers on the product.
6. A company is said to break even when the profits of the company are equal to the costs.
7. The legal structure could be a sole proprietorship, partnership or limited liability partnership.
8. There are two types of taxes – direct taxes payable by a person or a company, or indirect taxes charged on goods and/or services.
9. There are two types of insurance – life insurance and general insurance. Life insurance overs human.
- Life while general insurance covers assets like animals, goods, cars etc

Notes

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