

S.no	NOS	Question	Option1	Option2	Option3	Option4	Correct Answer	Difficulty Level	Marks
1	ELE/N7109.Set up circuits and electrical components in the mechatronics system	Which tool is primarily used to measure voltage while setting up an electrical circuit?	Ammeter	Voltmeter	Ohmmeter	Wattmeter	B	Easy	5
2		What is the first step before installing electrical components in a mechatronics system?	Power on the system	Check wiring diagrams	Connect the load	Test actuators	B	Easy	5
3		Which component is used to protect circuits from overcurrent?	Resistor	Diode	Fuse	Transformer	C	Easy	5
4		What type of signal is typically used to control a servo motor?	PWM signal	AC voltage	Analog temperature signal	Hydraulic pressure	A	Medium	7
5		Which document helps in identifying the correct wiring connections in a mechatronics system?	User manual	Wiring schematic	Maintenance report	Quality certificate	B	Hard	8
6	ELE/N7110.Install, test and use the sensors and actuators in the mechatronics system	Which sensor is commonly used to detect the presence of a metal object?	Ultrasonic sensor	Inductive proximity sensor	Temperature sensor	Optical encoder	B	Easy	4
7		What is the main purpose of a limit switch in a mechatronics system?	Speed control	End-position detection	Temperature measurement	Signal amplification	B	Easy	4
8		Which actuator converts electrical energy into linear mechanical motion?	DC motor	Solenoid	Stepper motor	Pneumatic valve	B	Easy	4
9		Before installing a sensor, what is the most important step?	Apply lubrication	Verify sensor specifications	Increase power supply	Disconnect all outputs	B	Medium	5
10		Which tool is typically used to test the output signal of a sensor?	Hammer	Micrometer	Oscilloscope	Wrench	C	Medium	6
11		Which actuator is best suited for precise angular positioning?	Relay	Servo motor	Diaphragm pump	Hydraulic jack	B	Hard	7
12	ELE/N7111.Install, test and use microcontroller in the mechatronics system	Which component is essential for uploading programs to a microcontroller?	Power supply	Programming cable	Cooling fan	Relay module	B	Easy	4
13		What is the primary function of a microcontroller in a mechatronics system?	Provide mechanical motion	Process inputs and control outputs	Store hydraulic fluid	Increase voltage levels	B	Easy	4
14		Which memory type in a microcontroller stores the program permanently?	RAM	Flash memory	Cache	Buffer memory	B	Easy	4
15		What should be checked first before connecting sensors to a microcontroller?	Color of the sensor wire	Compatibility of voltage levels	Weight of the sensor	Sensor material type	B	Medium	5
16		Which interface is commonly used for serial communication with a microcontroller?	HDMI	I2C	DVI	Audio jack	B	Medium	5
17		What tool is used to test digital output signals from a microcontroller?	Torque wrench	Multimeter	Screwdriver	Heat gun	B	Hard	8
18	DGT/VSQ/N0102.Employability Skills	Which of the following is a key component of effective communication?	Ignoring feedback	Active listening	Speaking aggressively	Using jargon	B	Easy	2
19		What is the main purpose of setting career goals?	To waste time	To provide direction and motivation	To impress others	To avoid challenges	B	Easy	2
20		Which of these is an example of a soft skill?	Programming	Welding	Teamwork	Driving	C	Easy	2

21	What is an important step in preparing for a job interview?	Avoid practicing	Research about the company	Arrive late	Speak negatively about past employers	B	Medium	3
22	Which financial literacy concept refers to money kept aside for emergencies?	Investment	Savings	Loan	Expenditure	B	Medium	3
23	Which tool helps in managing daily tasks effectively?	Hammer	Calendar or planner	Measuring tape	Extension cord	B	Hard	4
24	Which behaviour demonstrates professionalism at the workplace?	Being punctual	Quarrelling with colleagues	Avoiding responsibilities	Using mobile phones during meetings	A	Hard	4