

### HVAC (Heating, Ventilation, and Air Conditioning) Technician

S.no	NOS Name	Element Name	Type of question	Difficulty Level	Question	OPTION A	OPTION B	OPTION C	OPTION D	Answer			
1	ELE/N3192: Engage with customer for service of HVAC system	Introduction and interact with the client prior to initiating work	Fill in the blank	EASY	Before starting HVAC service, the technician should _____ work requirements with the client.	ignore	discuss	delay	change	B			
2			Direct concept	EASY	Why should a technician check AMC (Annual Maintenance Contract)?	To increase service time	To avoid repair	To know service coverage and	To change system	C			
3			Scenario Based	HARD	A technician finds limited access to equipment at site. What should be done first?	Start repair immediately	Ignore access issues	Cancel job	Study layout and plan tool movement	D			
4		Provide possible solutions to the client	Assertion-Reason	MEDIUM	Assertion: Technician must inform the client about time and cost. Reason: It builds transparency.	A false, R true	Both true but not reason	Both true & correct reason	A true, R false	C			
5			Assertion-Reason	MEDIUM	Assertion: Client approval must be taken before repair. Reason: It ensures agreement on cost and method.	Both true but not reason	A true, R false	Both true & correct reason	A false, R true	C			
6	ELE/N3140: Service, troubleshoot and repair a HVAC system (chillers)	Perform maintenance of the system	MCQ	EASY	Which component is cleaned during routine chiller maintenance?	Air filter	Compressor oil	Wiring insulation	Thermostat display	A			
7			MCQ	EASY	Which component controls airflow in ducts?	Capacitor	Damper	Relay	Fuse	B			
8		Troubleshoot and repair the system	Assertion-Reason	MEDIUM	Assertion: Electrical connections must be tightened regularly. Reason: Loose connections can cause vibration and faults.	Both true but not reason	Both true & correct reason	A true, R false	A false, R true	B			
9			Logical / Multi-	MEDIUM	A technician finds high current and overheating motor. What is the best action?	Ignore issue	Replace filter	Check electrical load and motor	Reduce airflow	C			
10	Check the performance after service and/or repair	Case Study	HARD	A chiller system shows low cooling efficiency, high pressure drop in filters, and unusual vibration. What should the technician do FIRST?	Replace entire system	Ignore vibration	Check filters, airflow, and tighten components	Increase thermostat setting	C				
11				Perform Service and Repair of Duct System	Direct Concept MCQ	EASY	What is checked to identify physical damage in ducts?	Voltage level	Air pressure	Bends and cracks	Motor speed	C	
12	Direct Concept MCQ	EASY	Which issue indicates a possible refrigerant leak?		High airflow	Ice formation on coil	Clean filter	Normal pressure	B				
13	ELE/N3141: Service, troubleshoot and repair a packaged type HVAC ducted system	Perform Service and Repair of Packaged Type HVAC System	Direct Concept MCQ	EASY	Which device is used to measure airflow?	Multimeter	Manometer	Anemometer	Clamp meter	C			
14			Check Performance of Ducts and Packaged System	Case Study	HARD	A duct system shows uneven airflow, high noise, and leakage at joints. What is the most appropriate action?	Replace entire system	Ignore noise	Seal leaks and check airflow balance	Increase fan speed only	C		
15		Logical / Multi-Concept		MEDIUM	If cooling is low and condenser coils are dirty, what should be done?	Replace compressor	Clean coils	Increase gas pressure	Reduce airflow	B			
16		Maintain Safe and Efficient Work Practices	Logical / Multi-Concept MCQ	MEDIUM	A system shows voltage imbalance across phases. What is the correct action?	Ignore issue	Check electrical connections and balance load	Replace ducts	Increase airflow	B			
17	DGT/VSQ/N0101: Employability Skills (30 Hours)	Introduction to Employability Skills Constitutional values – Citizenship Becoming a Professional in the 21st Century Basic English Skills Communication Skills	Direct MCQ	Easy	Why are employability skills important in a job?	To improve job performance	To avoid work	To reduce salary	To skip training	A			
18					Diversity & Inclusion Financial and Legal Literacy	Direct MCQ	Easy	Which is a constitutional value?	Dishonesty	Equality	Negligence	Laziness	B
19								Essential Digital Skills Entrepreneurship	Logical MCQ	Medium	Which skill helps in managing time effectively?	Time management	Sleeping
20					Customer Service	Logical MCQ	Medium				What is an example of basic English communication?	Greeting others	Writing code
21		Getting ready for apprenticeship & Jobs	Scenario Based	Hard	Which behavior shows good communication manners?	Interrupting others	Speaking politely	Ignoring others	Shouting	B			