Kentucky CTE

Construction: HVAC Electricity 460817 (2026–2027)

HVAC (Heating, Ventilation, and Air Conditioning) Principles, Terminology, and Safety: 1	**a** Define basic terminology used in the HVAC (Heating, Ventilation, and Air Conditioning) industry. 1.A
	b Describe the various types of tools and equipment used in HVAC (Heating, Ventilation, and Air Conditioning) and their proper use. 1.B
	c Follow approved safety procedures. 1.C
	d Explain the procedure for lockout/tagout system. 1.D
Electrical: 2	**a** Discuss electrical safety procedures and techniques. 2.A
	b Explain the physics of electricity and electrical circuits. 2.B
	c Identify the various types of single-phase and three-phase components. 2.C
	d Explain how to use and read various instruments needed for checking and testing electrical circuits and components. 2.D
HVAC (Heating, Ventilation, and Air Conditioning) Electricity: 3	**a** Demonstrate electrical safety. 3.A
	b Measure ohms with an ohmmeter. 3.B
	c Measure voltage with a voltmeter. 3.C
	d Measure amps with an ammeter. 3.D
	e Measure watts with a wattmeter. 3.E
	f Solve electrical circuit problems using Ohm's Law. 3.F
	g Draw and interpret electrical symbols. 3.G
	h Construct series circuits. 3.H
	i Construct parallel circuits. 3.I
	onnect, operate, and identify the types of single-phase motors. 3.J

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k **Measure the resistance of windings in a split-phase motor and identify the start/run windings.** 3.K

l **Test capacitors.** 3.L

m **Select wire and fuse sizes.** 3.M

n **Test transformers.** 3.N

o **Locate faults in electrical circuits.** 3.O

p **Identify types of 3-phase power supplies.** 3.P

q **Troubleshoot magnetic motor starters and coils.** 3.Q