

Duration: 60 Mins

Total Marks: 200

ID: ITISKILL4524WI

Student Name: _____ Roll No: _____

1. Where the normally closed contacts are internally connected in voltage relay?

- A) Across 2 and 5 B) Across 2 and 4
C) Across 1 and 5 D) Across 1 and 2

2. Which file is used for filing wood?

- A) Single cut file B) Smooth file
C) Double cut file D) Rasp cut file

3. What is the percentage range of silver in copper to copper pipes brazing rod?

- A) 35 to 45% B) 60 to 100%
C) 45 to 60% D) 20 to 35%

4. What is the unit of capacitance used with single phase induction motors in domestic RAC system?

- A) Milli ampere B) Milli henry
C) Kilo ohm D) Microfarad

5. Which refrigerant is highly flammable?

- A) HFC - Hydro fluoro carbon B) HCFC - Hydro chloro fluoro carbon
C) HC - Hydro carbon D) CFC - Chloro fluoro carbon

6. Which instrument is used for measuring heat?

- A) Calorimeter B) Ammeter
C) Thermometer D) Anemometer

7. What is the method of starting a 3 phase slip ring induction motor?

- A) With running capacitor B) Using starting capacitor
C) With starting relay D) Adding resistance to rotor winding

8. Which type of compressor is used as a vacuum pump?

- A) Rotary B) Centrifugal
C) Reciprocating D) Scroll

9. Which tool is used for bending long sheet metal?

- A) Shear B) Bench vice
C) Folding bar D) Hand vice

10. Which is the welding method if the filler rod only is fused?

- A) Pressure B) Non fusion
C) Forge D) Fusion

11. What is the purpose of relay used in window air conditioner?

- A) Disconnect the winding B) Disconnect the fan capacitor
C) Disconnect the starting capacitor D) Disconnect the running capacitor

12. What are the active components used in electronic circuits?

- A) Semi conductors and transformers B) Transformers and inductors
C) Transistors, diodes and SCRs D) Resistors, capacitors and inductors

13. Which movement of the scroll compresses the low pressure vapour in scroll compressor?

- A) Reciprocating B) Centrifugal
C) Orbital D) Rotating

14. What is the equivalent of one micron in millimeter?

- A) 0.001 mm B) 0.01 mm
C) 0.1 mm D) 0.0001 mm

15. Which winding has high inductance value in CSR compressor motor?

- A) Auxiliary winding B) Starting winding
C) Common winding D) Running winding

16. Which method is used to check the leakage of hydro fluoro carbon refrigerants?

- A) Electronic leak detector B) Sulphur candles
C) Litmus paper D) Electric torch

17. Which device is used to exhaust the room air in window AC?

- A) Filter drier
- B) Damper
- C) Air filter
- D) Air washer

18. Which part connects the piston with small end of connecting rod in a reciprocating compressor?

- A) Piston pin
- B) Piston sleeve
- C) Piston rings
- D) Piston bolt

19. What is smothering in fire extinguishing?

- A) Flashing with dry powder
- B) Use water to lower temperature
- C) Cutting off oxygen supply to fire
- D) Pouring of CTC

20. What is the function of refrigerant fluid in a refrigerator?

- A) Absorbs heat from outside the cabinet
- B) Releases heat inside the cabinet
- C) Absorbs heat from inside the cabinet
- D) Absorbs heat from bottom side cabinet

21. What is the advantage of using flux in brazing?

- A) Melting tubes
- B) Prevent Oxidation
- C) Chemical reaction
- D) Over heating

22. What is starving in extinguishing the fire?

- A) Stop the supply of oxygen
- B) Removal of fuel
- C) Adding fuel
- D) Clearing the hazards

23. Which is the common terminal while Ohm meter reads AB = 10 Ohm, AC = 15 Ohm and BC = 25 Ohm if the motor terminals are A, B and C?

- A) Terminal A
- B) Earth Terminal
- C) Terminal B
- D) Terminal C

24. Which valve is closed during compression stroke in reciprocating compressor?

- A) Liquid line valve
- B) Suction valve
- C) Service valve
- D) Discharge valve

25. What is done after gas charging and pinching the process tube in refrigerator?

- A) Brazing
- B) Charging
- C) Swaging
- D) Flaring

26. What is the remedy for the defective OLP in a window air conditioner?

- A) Repair the heater element
- B) Repair the OLP
- C) Remove the parts
- D) Replace the OLP

27. What is the absolute pressure of gas in a cylinder, if gauge reads 135.3 p.s.i.?

- A) 140 p.s.i.a
- B) 150 p.s.i.a
- C) 160 p.s.i.a
- D) 130 p.s.i.a

28. Which two tubes act as heat exchanger in a refrigerator?

- A) Suction and charging tube
- B) Discharge and suction tube
- C) Discharge and capillary tube
- D) Capillary and suction tube

29. Which type of expansion valve is used in window air conditioner?

- A) Automatic expansion valve
- B) Capillary tube
- C) Low side float valve
- D) Thermostatic expansion valve

30. Which refrigeration system works on directly by the heat energy?

- A) Vapour compression refrigeration
- B) Mechanical refrigeration
- C) Jet refrigeration
- D) Vapour absorption refrigeration

31. Which type of evaporator is used in window air conditioner?

- A) Fins and plate
- B) Fins and tube
- C) Bare tube
- D) Plate and tube

32. What is the ampere setting for 3.5 mm diameter electrode in welding?

- A) 60 Ampere
- B) 110 Ampere
- C) 100 Ampere
- D) 50 Ampere

33. Which type of compressor is used for domestic refrigerator?

- A) Hermetic compressor
- B) Open type compressor
- C) Semi sealed compressor
- D) Centrifugal compressor

34. What is the reason for Very high condenser temperature in a window air conditioner?

- A) More air flows into the condenser
- B) Fan motor working in good condition
- C) Dust accumulated in the condenser fins
- D) Water splashes condenser

35. What is the process involved for converting AC to DC power supply?

- A) Convection
- B) Inversion
- C) Rectification
- D) Regulation

36. What is the cooling capacity of 0.5 TR in BTU / hr?

- A) 18000
- B) 6000
- C) 12000
- D) 24000

37. What does the number 4 of R 134a indicate?

- A) Number of fluorine atoms
- B) Number of hydrogen atoms
- C) Number of chlorine atoms
- D) Number of carbon atoms

38. Which capacity of fan motor is used in 1Ton window air conditioner?

- A) 1/16 HP
- B) 1/20 HP
- C) 1/5 HP
- D) 1/10 HP

39. What is the reason for the compressor does not start but the fan motor works normally in window AC?

- A) Defective compressor motor
- B) Defective fan motor
- C) Defective blower
- D) Defective fan capacitor

40. What is the value of starting capacitor used for 1.5TR capacity window air conditioner?

- A) 150 to 160 MFD
- B) 130 to 150 MFD
- C) 80 to 100 MFD
- D) 40 to 60 MFD

41. Which refrigerant is used in domestic refrigerator?

- A) R 134 a
- B) R 22
- C) R 32
- D) R 407 c

42. Which is the numerical designation of ammonia refrigerant?

- A) $700 + (\text{Molecular mass of NH}_3) = 720$
- B) $700 + (\text{Molecular mass of NH}_3) = 718$
- C) $700 + (\text{Molecular mass of NH}_3) = 719$
- D) $700 + (\text{Molecular mass of NH}_3) = 717$

43. Which condition is maintained for refrigerant in high side of vapour compression system?

- A) Above its critical temperature
- B) Above its freezing temperature
- C) Below its critical temperature
- D) Below its freezing temperature

44. Which capacitor is connected in series with starting winding of CSR motor during operation?

- A) No capacitor is connected
- B) Start capacitor
- C) Run capacitor
- D) Fan capacitor

45. Which is used to connect the rotor bars in 3phase squirrel cage induction motor?

- A) Screw
- B) Welded

- C) Nut and bolt
- D) End ring

46. How the cylinders of gas welding set are secured in trolley?

- A) Using chain
- B) Tied up with belt
- C) By cable
- D) Tightened with rope

47. Which motor has the least starting torque?

- A) PSC
- B) RSIR
- C) CSIR
- D) CSR

48. What is the safety device used during arc welding?

- A) Screw clamp
- B) Hand screen
- C) Electrode holder
- D) Lugs for welding

49. Which gas is used for pressurising and testing leakage of RAC system?

- A) O_2
- B) N_2
- C) SO_2
- D) O_3

50. Which material is used for making disc in energy meter?

- A) Copper
- B) Aluminium
- C) Brass
- D) Zinc

51. What is the revolving part of induction motor?

- A) Stator
- B) Winding
- C) Rotor
- D) Relay

52. What is the name of joint between pieces located at right angle to each other?

- A) T - Joint
- B) Grooved joint
- C) Butt joint
- D) Lap joint

53. Which joint is made in either single or multi - strand conductors?

- A) Rat tail joint
- B) Scarfed joint
- C) Britannia joint
- D) Western union joint

54. What are the passive components used in electronic circuits?

- A) Transistors, diodes and SCRs
- B) Semi conductors and transistors
- C) Transformers and semiconductors
- D) Resistors, capacitors and inductors

55. What is the name of electronic circuit?

- A) Quarter wave rectifier
- B) Bridge rectifier
- C) Full wave rectifier
- D) Half wave rectifier

56. What is the tool used for holding hot metals?

- A) Spanner
- C) Tongs

- B) Bench vice
- D) Pipe vice

- C) Defective oscillation motor

- D) Defective fan motor

57. 1 Which control device is used to maintain the room air temperature?

- A) Relay
- C) Selector switch
- B) OLP
- D) Thermostat

58. Which stabilizer capacity is used for 1 Ton window air conditioner?

- A) 2 KVA
- C) 4 KVA
- B) 3 KVA
- D) 5 KVA

59. Which winding has more inductance in refrigerator compressor motor?

- A) Start and common
- C) Start
- B) Common
- D) Run

60. What is the colour of oxygen hose pipe in oxy - acetylene welding set?

- A) Maroon
- C) Red
- B) Green
- D) Black

61. Which extinguishes the fire of flammable liquids?

- A) Water
- C) CO₂
- B) Air
- D) Oil

62. Which type of 1-? motor has high starting torque?

- A) Resistance start induction run
- C) Induction start and induction run
- B) Capacitor start and capacitor run
- D) Permanent capacitor

63. What is the weld test without destroying or breaking the joint?

- A) Non destructive test
- C) Radio graphic test
- B) Destructive test
- D) Magnetic test

64. What is the cooling capacity of 1 TR in K Cal / hr?

- A) 3000
- C) 5000
- B) 6000
- D) 4000

65. How to change the direction of rotation in 3 Phase induction motor?

- A) Change all phase
- C) Change any two phase
- B) Change neutral
- D) Change the winding only

66. What is the reason for Compressor does not start ?

- A) Defective OLP
- B) Defective fresh air damper

67. What is the name of heat carrying medium in vapour compression system?

- A) Liquid
- C) Air
- B) Refrigerant
- D) Water

68. What is the use of suction baffle in a scroll compressor?

- A) Reduce capacity of compressor
- C) Reduce noise of compressor
- B) Increase noise of compressor
- D) Allow liquid to enter into compressor

69. Which part of the refrigerator cools the liquid refrigerant in capillary tube?

- A) Condenser
- C) Discharge line
- B) Suction line
- D) Evaporator

70. Which component absorbs the maximum heat from the cabinet materials in frost free refrigerator?

- A) Expansion valve
- C) Compressor
- B) Condenser
- D) Evaporator

71. What is the category of R 290 refrigerant?

- A) Hydrocarbons
- C) Azeotropes
- B) Halocarbons
- D) Organic compounds

72. Which law is related to the constant PV at constant T?

- A) Charles s law
- C) Boyles law
- B) Pascal s law
- D) Renaults law

73. Which winding is made of thin wire in single phase motor?

- A) Series
- C) Main
- B) Starting
- D) Running

74. Which is the point angle of a twist drill used for zinc alloy?

- A) 90 Degree
- C) 118 Degree
- B) 100 Degree
- D) 125 Degree

75. Which components maintain the pressure difference in RAC system?

- A) Receiver and condenser
- C) Compressor and expansion device
- B) Evaporator and motor
- D) Condenser and filter

76. What is the total resistance if two resistors R1 and R2 are connected in series?

- A) (R1 - R2) Ohms
C) (R1 + R2) Ohms
- B) (R1 / R2) Ohms
D) (R1 x R2) Ohms

77. Which winding of compressor motor is directly connected across voltage relay coil?

- A) Auxiliary winding
C) Running winding
- B) Starting winding
D) Main winding

78. Which material is used for making zener diode?

- A) Titanium
C) Silicon
- B) Lead
D) Platinum

79. Which valve is closed first while extinguishing flame in gas welding process?

- A) Hydrogen
C) Air
- B) Oxygen
D) Acetylene

80. How the refrigerants are classified based on heat absorption by latent and sensible heat?

- A) Primary and secondary
C) Halocarbons and hydrocarbons
- B) Organic and inorganic
D) Zeotropic and azeotropic

81. Which type of motor drive is used in hermetic compressor in refrigerator?

- A) Gear drive
C) Direct drive
- B) Push drive
D) Belt drive

82. What is the absolute zero temperature in degree centigrade?

- A) 0 Degree Centigrade
C) 100 Degree Centigrade
- B) -273 Degree Centigrade
D) 212 Degree Centigrade

83. What is the unit of inductance?

- A) Farad
C) Ohm
- B) Ampere
D) Henry

84. Which property is desirable for an ideal refrigerant?

- A) High boiling point
C) High specific volume
- B) High latent heat value
D) High freezing point

85. Which thermodynamic process the temperature is kept constant?

- A) Constant volume process
C) Constant pressure process
- B) Isothermal process
D) Isobaric process

86. What is the unit of electrical energy?

- A) Volt
C) Ampere
- B) Kilo watt hour
D) Watt

87. Which type of compressor is used in window air conditioner?

- A) Sealed type
C) Open type
- B) Swash plate
D) Belt drive

88. What is the effect of moist air present inside the hermetic system?

- A) Harmful to the compressor and motor
C) Capacity of compressor will increase
- B) Less wear and tear in compressor
D) Increase the life of compressor

89. Which is increased by the fins of condenser tubes in window air conditioner?

- A) Heat transfer rate
C) Discharge pressure
- B) Refrigerant flow rate
D) Power consumption

90. How the maximum reverse voltage across the diode is termed in reverse biased condition?

- A) Peak rectification voltage
C) Diode voltage
- B) Peak inverse voltage
D) Ripple frequency

91. Where the relay coil is internally connected in voltage relay?

- A) Across 5 and 2
C) Across 1 and 2
- B) Across 5 and 1
D) Across 2 and 4

92. What is the purpose of accumulator in a refrigerator?

- A) Avoids hunting of refrigerant
C) Prevents surging of refrigerant
- B) Improves oil circulation
D) Prevents liquid flood back to compressor

93. What is the use of a starting capacitor in single phase induction motor?

- A) Decrease starting torque
C) Disconnect starting winding
- B) Improve power factor
D) Increase starting torque

94. What is the effect of pouring water on electrodes resistance in earth pit?

- A) Remains same
C) Increases
- B) Decreases
D) Equalises

95. Which materials are used to make mallets?

- A) Wood, rubber
C) Rubber, brass
- B) Wood, cast iron
D) Wood, brass

96. Which refrigerant is used in vapour compression cycle?

- A) Water
C) Brine solution
- B) Primary refrigerant
D) Secondary refrigerant

97. What is the cylinder colour code of R 22 refrigerant?

- A) Orange
- B) Orchid
- C) Green
- D) White

98. What is the condition of compressor motor if Ohm meter reads infinity across common and start terminals?

- A) Starting winding shorted
- B) Running winding shorted
- C) Starting winding open
- D) Running winding open

99. Which refrigerant property is desirable for V.C system?

- A) Corrosive to metals
- B) Low Dielectric strength
- C) Low boiling point
- D) Low latent heat valve

100. Which component is used as a switching device in electronic circuit?

- A) Capacitor
- B) SCR
- C) Zener diode
- D) Diode

101. What is the angle of the tip of centre punch?

- A) 60 Degree
- B) 120 Degree
- C) 90 Degree
- D) 30 Degree

102. How does the evaporator frost affect the sub zero temperature thermally in refrigerator?

- A) As conductor
- B) As radiator
- C) As convector
- D) As insulator

103. Which power supply has the fixed polarity?

- A) Signal voltage
- B) Alternating current
- C) Signal ripples
- D) Direct current

104. Which motor has the least starting torque?

- A) CSR
- B) CSIR
- C) PSC
- D) RSIR

105. Which is the inorganic refrigerant?

- A) R 630
- B) R 500
- C) R 170
- D) R 717

106. What is the name of the caliper having one leg with an adjustable divider point and other leg is bent?

- A) Outside caliper
- B) Spring joint caliper
- C) Inside Caliper
- D) Jenny Caliper

107. Which type of condenser is used in window air conditioner?

- A) Plate and coil
- B) Plate and tube
- C) Fins and tube
- D) Bare tube

108. What is the reason for poor compression?

- A) Scratches on the piston surface
- B) Less clearance volume
- C) Lapped valve plate and reed seat
- D) Good lubrication on the moving parts

109. What is the effect of releasing HFC refrigerants to the atmosphere?

- A) Decrease green house effect
- B) Increase global warming potential
- C) Improve water pollution
- D) Increase ozone depleting potential

110. What is the reason for excessive frost on evaporator coil in window AC?

- A) Evaporator fins not blocked by dust
- B) Air filter blocked completely
- C) More air circulation in evaporator
- D) Blower rotating at higher speed

111. What is the load resistance in an electrical circuit, if current, $I = 2$ amp and supply, $V = 10$ volt?

- A) 5 Ohms
- B) 2 Ohms
- C) 4 Ohms
- D) 3 Ohms

112. How many hydrogen atoms are present in R 134a?

- A) One
- B) Three
- C) Two
- D) Four

113. What is the name of process that changes the used refrigerant to new product?

- A) Reclaim
- B) Recycle
- C) Recover
- D) Manufacture

114. Where the filter drier is installed in window AC refrigerant circuit?

- A) Service line
- B) Suction line
- C) Discharge line
- D) Liquid line

115. Which refrigerant blend is highly flammable?

- A) HFC
- B) HC
- C) HCFC
- D) CFC

116. What is the unit of electric current?

- A) Farad
- B) Ohm
- C) Volt
- D) Ampere

117. What type of heat is absorbed by primary refrigerant?

- A) Specific heat
- B) Latent heat
- C) Sensible heat
- D) Total heat

118. Which law relates to voltage, current and resistance in an electrical circuit?

- A) Ohm s law
- B) Faraday s law
- C) Lenz s law
- D) Newton s law

119. What is the energy of a body by virtue of its position?

- A) Potential energy
- B) Kinetic energy
- C) Electrical energy
- D) Wind energy

120. What is the remedy to remove moisture from the window AC system?

- A) Over gas charge in the system
- B) Clean the evaporator fins
- C) Clean the condenser fins
- D) Evacuate the system deeply

121. What is the method of converting AC to DC power supply with two diodes and a step down transformer?

- A) Half wave rectifier
- B) Full wave rectifier
- C) Medium wave rectifier
- D) Bridge rectifier

122. Which meter indicates the true power directly in an electrical circuit?

- A) Watt meter
- B) Volt meter
- C) Ammeter
- D) Ohm meter

123. What is the reason for filter drier sweating in refrigerator?

- A) Oil in the system
- B) Moisture in the system
- C) Nitrogen in the system
- D) Oxygen in the system

124. What is the boiling point of pure water in centigrade scale?

- A) 32 Degree Centigrade
- B) 212 Degree Centigrade
- C) 0 Degree Centigrade
- D) 100 Degree Centigrade

125. What is the advantage of a hermetically sealed compressor in refrigerator?

- A) Cost is high
- B) Easily serviceable
- C) Silent operation
- D) Noise is more

126. Which group the acetylene gas belongs?

- A) HC
- B) HFC
- C) HCFC
- D) CFC

127. Why universal numbering system is adopted for different refrigerants?

- A) Mixing the lubricant combination
- B) Fixing the drier combination
- C) Identify the systems
- D) Identifying the refrigerant's names

128. What is the barometer reading at sea level in Hg column?

- A) 740 mm
- B) 730 mm
- C) 750 mm
- D) 760 mm

129. How many diodes are required for making a bridge rectifier circuit?

- A) Two
- B) One
- C) Four
- D) Three

130. Which semiconductor material is used to make diodes?

- A) Aluminium
- B) Steel
- C) Copper
- D) Silicon

131. Which component secures the hose with regulator union in gas welding set?

- A) Fibre clip
- B) Iron chain
- C) Hose clamp
- D) Steel wire

132. Which relay is used in capacitor start, capacitor run (CSR) compressor motor?

- A) Thermal relay
- B) Current relay
- C) Amperage relay
- D) Voltage relay

133. How to neutralise the concentration of leaked ammonia from air

- A) Shut down the plant
- B) Spray Hydrochloric acid
- C) Recover ammonia from air
- D) Spraying a lot of water

134. Which material is used to clean oil and grease on the floor?

- A) Water
- B) Saw dust
- C) Cotton waste
- D) Air

135. Which electronic component is the voltage regulator?

- A) Diac
- B) Transistor
- C) Triac
- D) Zener diode

136. Where does the ozone layer exist in atmosphere?

- A) Stratosphere
- B) Mesosphere
- C) Exosphere
- D) Ionosphere

137. What is the supply voltage if a current of 2 ampere flows through 10 Ohm resistor in a circuit?

- A) 45 Volt
- B) 65 Volt
- C) 20 Volt
- D) 55 Volt

138. What is the name of active component used in electronic circuit?

- A) DIAC
- C) TRIAC

- B) SCR
- D) Transistor

C) 80 MFD

D) 40 MFD

139. Which material is used to make the evaporator of refrigerator?

- A) Brass
- C) Galvanised iron
- B) Aluminium
- D) Stainless steel

140. Which method is used to connect the swaged joint in copper tubes?

- A) Silver brazing
- C) Fusion welding
- B) Lead soldering
- D) TIG welding

141. Why the acetylene gas is avoided with copper pipe lines or fittings in oxy-acetylene welding set?

- A) Copper is expensive
- C) Copper is not flexible hose
- B) Copper pipe consumes more acetylene
- D) Copper and acetylene form explosive

142. What is the least count of a metric micrometer?

- A) 0.001 mm
- C) 0.1 mm
- B) 0.001 mm
- D) 0.01 mm

143. What is the fault if excess deposit of tiny metal globules formed on the job surface along weld?

- A) Incomplete penetration
- C) Blow hole
- B) Spatters
- D) Slag inclusion

144. What is the minimum distance to be maintained between the wall and refrigerator condenser?

- A) 22 cm
- C) 15 cm
- B) 13 cm
- D) 18 cm

145. Which method of welding process is suitable to nonferrous dissimilar metals?

- A) Brazing and bronze welding
- C) Cold welding
- B) Explosion welding
- D) Ultrasonic method of welding

146. What is effect of compression process on refrigerant vapour?

- A) Cool the vapour above saturation
- C) Decrease the pressure and temperature
- B) Heat the vapour below saturation
- D) Increase the pressure and temperature

147. What is the value of running capacitor used for 1.5 TR window air conditioner?

- A) 36 MFD
- B) 100 MFD

148. What is the resistance level of start winding in a refrigerator's compressor motor?

- A) Low resistance
- C) Medium resistance
- B) Zero resistance
- D) High resistance

149. Which material is used for making ICs?

- A) Carbon
- C) Platinum
- B) Mild steel
- D) Silicon

150. Which is the effective method for refrigerant recovery?

- A) Charge migration
- C) Condensing unit
- B) Use of system's compressor
- D) Push pull recovery

151. What is the rotor speed with respect to stator field speed in an induction motor?

- A) Equal to the stator speed
- C) Less than the stator speed
- B) More than the stator speed
- D) More than the fly wheel

152. Which instrument is used to identify the terminals of a compressor motor?

- A) Ohm meter
- C) Ammeter
- B) Voltmeter
- D) Anemometer

153. Which metal is alloyed with zinc to make brass?

- A) Bronze
- C) Aluminium
- B) Iron
- D) Copper

154. What is the value of starting capacitor used for 1TR window air conditioner?

- A) 100 MFD
- C) 60 MFD
- B) 40 MFD
- D) 80 MFD

155. Which components are connected by metering device in vapour compression cycle?

- A) Condenser and evaporator
- C) Evaporator and suction line
- B) Compressor and evaporator
- D) Compressor and condenser

156. Which is indicated by the arrow mark on filter drier component?

- A) Flow direction of refrigerant
- C) Position of capillary tube
- B) Arrangement of desiccant and filter
- D) Flow direction of air

157. Which substance absorbs heat and directly changes its state from solid to vapour?

- A) Secondary refrigerants
- B) Dry ice
- C) Primary refrigerants
- D) Ice

- A) Instrument manifold
- B) Pipe manifold
- C) Gauge manifold
- D) Pressure manifold

158. Which gas is universally taken as the basic reference for GWP?

- A) SO₂
- B) CO₂
- C) NH₃
- D) AIR

168. What is the equivalent absolute scale for centigrade?

- A) Celsius
- B) Rankine
- C) Kelvin
- D) Fahrenheit

159. Which application uses the digital ICs?

- A) Logic gates
- B) Tuned circuits
- C) Amplifier
- D) Voltage regulator

169. Which instrument is used to measure atmospheric pressure?

- A) Hygrometer
- B) Hydrometer
- C) Manometer
- D) Barometer

160. Which tool is used for skinning the insulation of cables and cleaning the wire surface?

- A) Combination pliers
- B) Firmer chisel
- C) Electrician's knife
- D) Hacksaw

170. What is the unit of capacitance?

- A) Coulomb
- B) Volt
- C) Ampere
- D) Farad

161. Which device maintains a constant DC output?

- A) Voltage regulators
- B) Current limiters
- C) Rectifier circuits
- D) Load regulators

171. What is applied to find the leakage on acetylene gas connection?

- A) By smell
- B) Halide torch
- C) LPG torch
- D) Soap bubbles

162. What is the physical state of ammonia at condenser inlet in vapour absorption system?

- A) Semi solid
- B) Solid
- C) Liquid
- D) Vapour

172. What is the capacity of compressor motor used in 1Ton window air conditioner?

- A) 0.50 HP
- B) 0.95 HP
- C) 0.75 HP
- D) 1.00 HP

163. Which tool is used for tightening the odd size bolts and nuts?

- A) Socket set
- B) Nose pliers
- C) Adjustable spanner
- D) Ring spanner

173. What is the use of capacitor in PSC operated induction motor?

- A) Improve the power factor
- B) Decrease the power factor
- C) Cancel the starting torque
- D) Decrease the starting torque

164. Which medium is used to extinguish Class - A fire?

- A) CO₂
- B) Water
- C) Dry powder
- D) Foam

174. Which type of fan motor is used in window air conditioner?

- A) Three phase single shaft motor
- B) Single phase single shaft motor
- C) Three phase double end shaft motor
- D) Single phase double end shaft motor

165. What is the cause of reduced supply air throw though air filter is clean in window AC?

- A) No frost in the evaporator
- B) Dust accumulated in the condenser
- C) Frost accumulated in the evaporator
- D) No dust accumulated in the evaporator

175. What is the area of room cooled by 1ton window air conditioner?

- A) 2000 sq.ft
- B) 5000 sq.ft
- C) 1000 sq.ft
- D) 3000 sq.ft

166. What is the fault in compressor motor if there is electrical continuity between the dome and motor terminal?

- A) Open common terminal
- B) Shorted start winding
- C) Grounded compressor motor
- D) Shorted run winding

176. How to prevent the small pieces of glass wool affecting the eyes?

- A) Wearing gloves
- B) Using mask
- C) Using shoes
- D) Wearing goggles

167. Which instrument is used to measure pressure on both high and low side of the system?

177. Which property limits the flow of electrons in an electrical circuit?

- A) Current
C) Resistance
- B) Conductance
D) Voltage

178. What is the reverse break down voltage range of zener diode?

- A) 0.1 to 0.5 volt
C) 3 to 18 volt
- B) 0.5 to 1 volt
D) 1 to 3 volt

179. How electrons flow in a battery circuit?

- A) Negative polarity to positive polarity
C) Phase to neutral
- B) Phase to earth
D) Positive to negative polarity

180. Which gas is used for pressure testing the compressor dome?

- A) Oxygen
C) Refrigerant
- B) Nitrogen
D) Air

181. Which type of diode is used for communication circuits?

- A) Switching diode
C) Signal diode
- B) Zener diode
D) Rectifier diode

182. What is the purpose of operating the fan motor first and then the compressor motor in Air conditioners?

- A) Minimise the noise of motors
C) Cool the coils first by fan
- B) Stop the high starting current by both motors
D) Cool the compressor by fan

183. Which material is used for making fins of condenser in a window air conditioner?

- A) Brass
C) Cast iron
- B) Copper
D) Aluminium

184. Why the filler metal does not melt and flow into the joint in bronze welding of copper?

- A) Excessive heating of metal s surface
C) Excess use of flux
- B) Due to excess of polished surface
D) Surface coated with oxides or oily material

185. What is the reason for the compressor motor burn out in a window air conditioner?

- A) Defective fan capacitor
C) Defective OLP
- B) Defective blower
D) Defective fan motor

186. How many terminals are there in a Silicon Controlled Rectifier (SCR)?

- A) Three
C) Two
- B) One
D) Four

187. What is the effect of sensing higher temperature by thermistor NTC?

- A) Resistance becomes infinity
C) Resistance becomes zero
- B) Resistance decreases
D) Resistance increases

188. What is the material composition of a Tin man s solder?

- A) 50% Zinc 50% lead
C) 50% Tin 50% Zinc
- B) 50% Tin 50% lead
D) 50% Tin 50% Bronze

189. How the difference between the synchronous speed and the actual rotor speed is specified?

- A) Trip
C) Lead
- B) Slip
D) Lag

190. What is ensured before removing a leaky evaporator in a refrigerator?

- A) Recharge refrigerant to the system
C) Pressurize the system with refrigerant
- B) Check the drain tray of evaporator
D) Removal of the thermostat sensor

191. What is the colour of acetylene hose pipe in oxy - acetylene welding set?

- A) Black
C) Red
- B) Green
D) Maroon

192. Which type of insulating material is used for making ice box to cool beverages?

- A) Thermocole
C) Glass wool
- B) Fibre glass
D) Tar felt

193. Which safety device is used for compressor motor in window air conditioner?

- A) Over load protector
C) Running capacitor
- B) Starting capacitor
D) Relay

194. Which factors produce work?

- A) Time and distance
C) Force and power
- B) Force and time
D) Force and distance

195. Which tool is used for trimming the edges of a sheet metal cylinder?

- A) Tube cutter
C) Scissors
- B) Straight snips
D) Bent snips

196. Which is the green house gas?

- A) Chlorofluoro carbon in air
C) Helium of atmospheric air
- B) Neon of atmospheric air
D) Oxygen of atmospheric air

197. Which tool is used for bending, seaming and forming of sheet metal?

- A) Bench vice
- B) Hand vice
- C) Shear
- D) Stakes

199. Which part of window AC removes dust particles from the room air?

- A) Dehydrator
- B) Air filter
- C) Filter drier
- D) Strainer

198. Which extinguishes the fire on electrical equipment?

- A) Halon
- B) Oil
- C) Foam
- D) Water

200. Which flame is used for welding brass?

- A) Oxidising flame
- B) Neutral flame
- C) Wide flame
- D) Carburising flame