212/2015

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Dry ice is :

   (A) Ammonia (B) H_2O

   (C) Carbon Mono oxide (D) CO_2

2. Which type condensers are commonly used in water coolers?

   (A) Natural Draft (B) Forced Draft

   (C) Water cooled (D) Coolant Circulation

3. The weight of HC charged to the system for drop in conversion from CFC 12 to HC is :

   (A) 140% (B) 100%

   (C) 40% (D) 60%

4. The ball bearings of electrical motor are lubricated by :

   (A) Grease (B) Air

   (C) Oil (D) Water

5. The component which controls the flow of refrigerant to the evaporator is called :

   (A) Solenoid valve (B) Thermostat

   (C) Expansion valve (D) Driers

6. Dehydrator is installed in the :

   (A) Discharge line (B) Suction line

   (C) Liquid line (D) Capillary line

7. The idea of Pulsetube originated from Gifford is in :

   (A) 1968 (B) 1947

   (C) 1961 (D) 1930

8. "ASHRAE" is :

(A) American Society of Heating Refrigerating and Air Conditioning Engineers

(B) Association of States of Heating Refrigerating and Air Conditioning Engineers

(C) American Society Having Refrigerating and Air Conditioning Engineers

(D) American Society of Harmful Refrigeration and Air Conditioning in Earth

9. Refrigeration is the process of ———— heat.

(A) Removing (B) Adding

(C) Lowering (D) Transfering

10. Auto defrost operated by :

(A) Evaporator fan (B) Thermostat

(C) Timer switch (D) Heating element

11. Rectifiers are used to convert :

(A) Voltage of current (B) Voltage of velocity

(C) AC to DC (D) DC to AC

12. Normal drinking water temperature is :

(A) 10°C (B) 15°C

(C) 20°C (D) 25°C

13. Brine Solution is :

(A) Maintains the temperature (B) Made of Diesel

(C) Highly flammable (D) Secondary refrigerant

14. If the fan blades are cracked :

(A) Straighten the blade (B) Change the blade

(C) Braze the cracking of blade (D) Stick the cracked space with adhesive

15. Poor compression due to :

(A) Gas storage (B) Reeds Leak

(C) Poor condensation (D) Compressors

16. The chemical formula of water is :

(A) N_2 (B) O_2

(C) H_2O (D) CO_2

17. Environment friendly refrigerant R134a is used in new generation domestic refrigerators. Its chemical formula is :

(A) $CHClF_2$ (B) $C_2Cl_3F_3$

(C) $C_2Cl_2F_4$ (D) $C_2H_2F_4$

18. Actually the compressor has two jobs. One is compressing the refrigerant vapours and the other is :

(A) Equalise pressure in the system

(B) Circulate the refrigerant in the system

(C) Provide refrigerating effect

(D) Keep the foods fresh

19. Refrigerator door is pulled close by :

(A) Magnetic gasket (B) Gravitational force

(C) Spring tension (D) Slanting level

20. The five micron filters is named as :

(A) Catch all filter (B) Rough filter

(C) Bag filter (D) Fine filter

21. The component which releases the heat from the refrigerant is :

(A) Condenser (B) Evaporator

(C) Expansion device (D) Thermostat

22. C.A.V stands for :

(A) Central Air Volume (B) Constant Air Volume

(C) Creative Air Volume (D) Constant Air Velocity

23. R.717 stands for :

(A) Ammonia (B) Freon

(C) Sulphur Di oxide (D) Sodium Chloride

24. Zeotropic mixtures are coming under ———— series number.

(A) 500 (B) 400

(C) 300 (D) 600

25. The clearance between cylinder wall and piston wall is kept :

(A) .0003" (B) .003"

(C) .0001" (D) .001"

26. Cast iron is produced from which furnace :

(A) Blast furnace (B) Cupola furnace

(C) Puddling furnace (D) Electronic arc furnace

27. The unit of resistance is :

(A) Ampere (B) Ohm

(C) Volt (D) Watt

28. Efficiency is always :

(A) More than one (B) Equal to one

(C) Less than one (D) None of the above

29. The reason for poor condensation is :

(A) No lubrication (B) Poor brazing

(C) Capillary check (D) Fins blocked

30. Ideal pressure of F12 is :

(A) $2kg/cm^2$ (B) $3.5kg/cm^2$

(C) $6kg/cm^2$ (D) $7.5kg/cm^2$

31. The metal wire which give good earth contact is :

(A) Copper (B) Glass

(C) Brass (D) Aluminium

32. Gasket prevents :

(A) High temperature (B) Low pressure

(C) Water flow (D) Leaks in joints

33. The evaporator which is more efficient is :

(A) Dry evaporator
(B) Flooded evaporator
(C) Evaporator condenser
(D) Heat exchanger

34. Thermostat element is charged with :

(A) F12
(B) Alcohol
(C) Volatile liquid
(D) Alcohol with water

35. The electrical fire spreading can be protected by :

(A) Earth connection
(B) Bucket of water
(C) Sand
(D) Fire extinguisher

36. An air sample without water vapour is called :

(A) Moist air
(B) Dry air
(C) Saturated air
(D) Cooled air

37. A thermostat controls :

(A) The voltage
(B) The air flow
(C) The Pressure in the system
(D) The temperature in the system

38. The valve seating should be checked for leak by :

(A) Water
(B) Kerosene
(C) Air
(D) Spirit

39. The size of the gasket is based on :

(A) Length
(B) Width
(C) Thickness
(D) Roughness

40. 1 Joule = _____

(A) 10^7 ergs
(B) 10^9 ergs
(C) 10^{10} ergs
(D) 10^5 ergs

41. The maximum amount of vapours having no unvapourised liquid is :

(A) Super Heated vapours
(B) Saturated vapours
(C) Unsaturated vapours
(D) Perfect gas

42. The given formula $v = \frac{\pi \times D^2 \times SNR}{4}$ cubicinch/min is used for finding :

(A) Volumetric efficiency
(B) Piston Displacement
(C) R.P.M
(D) Range of cooling tower

43. The refrigerant used for ice plant is :

(A) F12
(B) F22
(C) Ammonia
(D) Waters

44. Which device protect our circuits from overflowing current?

(A) Switch
(B) Wire
(C) Clamp
(D) Fuse

45. Relay is an ———— Operated switch

(A) Pressure
(B) Electrical
(C) Temperature
(D) Air flow

46. Cold air moves in the direction of :

(A) Upward
(B) Downward
(C) Horizontal
(D) All of the above

47. Brine Solution density is checked by :

(A) Tacometer
(B) Hydrometer
(C) Anemometer
(D) Thermometer

48. If the Solenoid valve has mechanical problem :

(A) Service the plunger
(B) Exchange the coil
(C) Replace the top cover
(D) Change the electrical connection

49. The Piston is made of :

(A) Mild steel
(B) Brass
(C) Copper
(D) Cast iron

50. Evaporative condensers cooling medium is :

(A) Combination of air and water
(B) Refrigerant vapour
(C) Natural Air
(D) Chilled water

51. The effect of cooling produced by a good installed unit will be :

(A) Maximum
(B) Minimum
(C) Intermittent
(D) Poor

52. In a refrigeration system frosting starts from capillary due to :

(A) Oil in evaporator coil
(B) Compressor has poor pumping
(C) Gas quantity is less
(D) Drier filter partially blocked

53. Starting capacitor is employed to increase :

(A) Life of winding
(B) Motor torque and power factor
(C) Running performance
(D) Life of motor

54. HFC should not vent to atmosphere because :

(A) It is flammable in atmospheric temperature
(B) It has high G.W.P
(C) It is highly toxic
(D) It is very costly

55. The valve lifting capacity control lifts the :

(A) Solenoid valve
(B) Service valve
(C) Suction valve
(D) Piston

56. At which point the °C scale and °F scale will be same

(A) 40°
(B) 60°
(C) –40°
(D) 0°

57. The chemical formula of R12 is :

(A) CCl_2F_2
(B) $C_2Cl_2F_2$
(C) C_2ClF_2
(D) C_2Cl_2F

58. Which one of the following is the cause of high head pressure?

(A) Air is the system
(B) Oil is the evaporator
(C) Shortage of refrigerant
(D) Moisture is the system

59. Which one of the following is not a refrigerant control device?

(A) Thermostatic expansion valve
(B) Capillary tube
(C) Thermostat switch
(D) Low slide float value

60. In a reciprocating compressor suction and discharge reeds are made of :

(A) Carbon steel
(B) Stainless steel
(C) Cast iron
(D) Spring steel

61. Name the type of compressor used in domestic refrigerator :

(A) Screw compressor
(B) Sealed type scroll
(C) Sealed type rotary
(D) Sealed type reciprocating

62. Liquid refrigerant collects in the lower coil of the condenser and flows through :

(A) Evaporator coil
(B) Compressor suction
(C) Heat exchanger
(D) Capillary tube

63. Water inlet flow of the water cooler is controlled by :

(A) Expansion valve
(B) Solenoid valve
(C) Float valve
(D) Pressure regulating valve

64. Thermostatic expansion valve function with :

(A) Suction pressure
(B) Discharge pressure
(C) Suction temperature
(D) Discharge temperature

65. Excessive frost collection inside the deep freezer is :

(A) Lower freezer temperature
(B) Spoil the food content
(C) Acts as an insulation
(D) Gives maximum cooling

66. Reason for Thermostat not cutout is :

(A) Thermostat contacts welded
(B) Low voltage
(C) Storage tank is empty
(D) Float valve stuck in close position

67. An object with a difference of potential exists between it and earth is called :

(A) Live
(B) Dead
(C) Earth electrode
(D) Resistance Area

68. The reason for thermostat become defective is :

(A) Moisture in the system
(B) Lack of lubrication oil
(C) Carbon formation in contact points
(D) OLP is not responding

69. In Freon group condenser tubes are :

(A) Aluminium
(B) Brass
(C) Steel
(D) Copper

70. The cooling capacity of 1 ton of refrigeration is :

(A) 5,000 BTU/hr
(B) 12,000 BTU/hr
(C) 18,000 BTU/hr
(D) 2,44,000 BTU/hr

71. The instrument used for finding the leakage of Freon and Methyl chloride is :

(A) Thermostat
(B) Halide torch
(C) Psychrometer
(D) Hydrometer

72. In the following which one is not a part of an oil pressure safety control?

(A) Bimetal strip
(B) Contact points
(C) Reset button
(D) Feeler bulb

73. In a Fin & Tube type Air cooled condenser Fins are provided for :

(A) Protect the tube from damage
(B) Strengthen the tube
(C) Increasing the heat transaction rate
(D) Giving a good shape

74. Expansion valve is located :

(A) Before the evaporator
(B) Before the drier
(C) After the evaporator
(D) Before the condensor

75. What is the expansion of LED?

(A) Light emitting device
(B) Light emitting diode
(C) Light ejecting device
(D) All of the above

76. Capillary tube is used in conventional refrigerator as a :

(A) Expansion device
(B) Control device
(C) Metering device
(D) All of the above

77. CSIR wiring will not have any one of the following :

(A) Start capacitor
(B) Run capacitor
(C) Relay
(D) Relay Package Assembly

78. Which of the following refrigerant is highly toxic and flammable?

(A) Ammonia
(B) Carbondioxide
(C) Sulphurdioxide
(D) R – 12

79. For safety which wire is connected to the ON/OFF switch :

(A) Dummy
(B) Neutral
(C) Phase
(D) Earth

80. High discharge temperature is due to :

(A) Capacitor defective
(B) Starting relay defective
(C) Fan motor defective
(D) Compressor defective

81. Who was called the political father of the Ezhavas?

(A) Sree Narayana Guru
(B) Kumaranasan
(C) Dr. Padmanabhan Palpu
(D) Ayyankali

82. The historic monument built to commemorate the soldiers who died in first world war :

(A) Qutub Minar
(B) Charminar
(C) Gate way of India
(D) India Gate

83. Dada Saheb Phalke award winner for the year 2014 :

(A) Sasi Kapoor
(B) Sanchari Vijay
(C) Anil Kapoor
(D) A.R. Rahman

84. 'Athmavidyasangam' was founded by :

(A) Vagbhatananda Swamikal
(B) Thycaud Ayya
(C) Chattambi Swami
(D) Pandit Karuppan

85. Who became the speaker of Kerala Assembly after the death of G. Karthikeyan?

(A) Sabareenath
(B) N. Sakthan
(C) Thomas Unniyadan
(D) P.C. Thomas

86. Joseph Sepblatter, President of FIFA who resigned recently belonged to :

(A) France
(B) Switzerland
(C) England
(D) Germany

87. 'Swaraj is my birth right and I shall have it'. Who said this?

(A) Gandhiji
(B) Nehru
(C) Bal Gangadhar Tilak
(D) Subhash Chandra Bose

88. Amarthyasen received Nobel Prize for :

(A) Peace
(B) Economics
(C) Physics
(D) Literature

89. Which one of the following is not an east flowing river in Kerala?

(A) Kabani
(B) Bhavani
(C) Pambar
(D) Pamba

90. Mission Indradhanus is a programme :

(A) To immunise children against seven diseases
(B) To educate all children
(C) To eradicate poverty
(D) To combat terrorism

91. Chennara, the birth place of Mahakavi Vallathol is in :

(A) Thrissur District
(B) Malappuram District
(C) Palakkad District
(D) Kollam District

92. Gandhiji's first Sathyagraha in India was at :

(A) Sabarmathi
(B) Surat
(C) Bardoli
(D) Champaran

93. SAF games 2015 is going to be held in which of the following state?

(A) Assam (B) Tamil Nadu

(C) Kerala (D) Goa

94. Poykayil Yohannan was also called :

(A) Chavara Achan (B) Vaikundar

(C) Thycaud Ayya (D) Kumara Guru

95. Which one of the following was not a member of cabinet mission in 1946 :

(A) Sir Stafford Crips (B) A.V. Alexander

(C) Lord Mount Batten (D) Pethic Lawrance

96. The Hirakud Dam is built across the river :

(A) Mahanadi (B) Ganga

(C) Godawari (D) Kaveri

97. V.T. Bhattathiripad was the author of :

(A) Agnisakshi (B) Kanneerum Kinavum

(C) Patta Bakki (D) Nalukettu

98. Poorna swaraj resolution was passed by Lahore session of Indian National congress in the year :

(A) 1928 (B) 1930

(C) 1929 (D) 1942

99. The famous news paper owned by Vakkom Abdul Khader Moulavi :

(A) Young India (B) Meerathul Akbar

(C) Mithavadi (D) Swadesabhimani

100. The Kerala Government's campaign 'Subodham' is an :

(A) Anti drug awareness programme

(B) Anti corruption awareness programme

(C) Aids awareness programme

(D) Anti smuggling awareness programme
