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ROLL NUMBER:

WRITTEN TEST FOR THE POST OF
JUNIOR TECHNICAL ASSISTANT (MRAC) – A (VOP)

DATE : 19/06/2017

TIME : 10.00 AM

DURATION : 60 MINUTES

TOTAL MARKS : 40

INSTRUCTIONS TO THE CANDIDATE

1. Write your Roll Number on the top of the Question Booklet and in the Answer Sheet.
2. Each question carries 1 mark.
3. There will not be any Negative Marking.
4. Write legibly the alphabet of the most appropriate answer in the separate answer sheet provided.
5. Over-writing is not permitted.
6. Marking more than one answer will invalidate the answer.
7. Candidate should sign on the question paper and Answer Sheet.
8. Candidate should hand over the question paper and Answer Sheet to the invigilator, before leaving the examination hall.

Signature of the Candidate

WRITTEN TEST FOR THE POST OF JR. TECH ASST (MRAC) – (VOP) ON 19/06/2017

1. Micron multiplied by ----- is metre.
A. 0.001
B. 0.000001
C. 1000
D. 1000000
2. One square metre is approximately ----- square feet.
A. 30.48
B. 25.4
C. 12
D. 10.76
3. A flow rate of 1 cubic metre per minute is ----- cubic foot per minute (cfm)
A. 35.315
B. 0.0283
C. 1728
D. 1000000
4. Normal static pressure of an AHU (mm HG) is
A. 40 to 75
B. 150 to 250
C. 500 to 1000
D. 2000 to 4000
5. Which of the following is a property of Refrigerant Oil?
A. High Acidity
B. High Floc Point
C. High Pour Point
D. High Dielectric Strength
6. Ideal Power factor for electric supply is
A. 1
B. 50
C. 230
D. 440
7. Crank shaft is a part of
A. Screw compressor
B. Centrifugal compressor
C. Reciprocating compressor
D. Condenser
8. Term connected with paraffin content of Refrigeration Oil is
A. Pour point
B. Floc point
C. Viscosity
D. Acidity
9. Ammonia is
A. R 22
B. R 502
C. R 11
D. R 717
10. In compound system of multi-stage compression, two or more compressors are connected in -----
A. Parallel
B. Cascade
C. Series
D. Feedback method
11. Evaporator of a Split AC unit is in its -----
A. Indoor Unit
B. Outdoor Unit
C. Pipe lines in between Indoor and Outdoor units
D. No evaporator in Split AC units
12. How many chilled water pipe lines are seen in reverse return air conditioning system?
A. 2
B. 1
C. 4
D. 3
13. For a good duct - A.C system Aspect Ratio must be
A. High
B. Low
C. In between 5 and 10
D. Above 10

14. Gas scavenging system in hospital is to remove
- A. Refrigerant gases
 - B. Oxygen
 - C. Carbon Monoxide
 - D. Anaesthetic gases
15. Megger (Electrical instrument) is used to check
- A. Voltage
 - B. Insulation resistance
 - C. Current
 - D. Capacitance
16. Unit of electricity in domestic metering of KSEB is -----
- A. KWH
 - B. KW
 - C. KVAR
 - D. KV
17. Approximate full load current drawn by a 5 hp induction motor is
- A. 25 A
 - B. 3 A
 - C. 7 A
 - D. 0.75 A
18. Which of the following is used to protect electric motor
- A. Overload Relay
 - B. Capacitor
 - C. Inductance
 - D. Strainer
19. Single phasing in electricity distribution occurs when
- A. All 3 phases of supply remains with low voltage
 - B. Voltage in a single phase supply exceeds a safe limit
 - C. Voltage in a single phase supply drops below 150 Volts
 - D. One phase of a three phase supply goes off and other two ON
20. Which of the following is part of refrigeration cycle?
- A. Fan
 - B. Condensing Coil
 - C. Temperature sensor
 - D. Chilled water pump
21. In refrigeration cycle, heat is absorbed by
- A. Condenser
 - B. Evaporator
 - C. Compressor
 - D. Cooling Tower
22. One KWH is approximately equal to
- A. 4500 BTU/hr
 - B. 7500 BTU/hr
 - C. 12000 BTU/hr
 - D. 3500 BTU/hr
23. In relation to refrigeration, CFC stands for
- A. Carbon Fluoro Carbon
 - B. Carbon Fluoro Chlorine
 - C. Chloro Fluoro Carbon
 - D. Composite Fan Curve
24. In Operation Theatres, air is filtered to high levels to -
- A. Reduce infection
 - B. Reduce cooling
 - C. Increase cooling
 - D. Reduce air velocity
25. In chilled water central AC system, the temperature of the cooled water is about
- A. 4.4 to 7.2 Degree C
 - B. 7 Degree C
 - C. 20 Degree C
 - D. Zero Degree C
26. In refrigeration cycle mainly there are ----- processes.
- A. a large number of
 - B. 8
 - C. 1
 - D. 4

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27. Most air conditioners have their capacity rated in
- A. BTU (British Thermal Unit)
 - B. KWh
 - C. Kgs
 - D. Watts
28. A highly humid environment is very
- A. Favorable for reducing load on ac unit
 - B. Pleasant
 - C. Ideal for equipment loads
 - D. Uncomfortable
29. ----- is often referred as the heart of the AC system
- A. thermostat
 - B. cooling coils
 - C. compressor
 - D. refrigerant
30. The duct system of air conditioning is to
- A. control humidity
 - B. provide a control path for chilled water
 - C. provide a control path for air flow
 - D. control micro organism
31. Referring to A.C. ducting, the system where all the branch ducts starts at the same location is called
- A. plenum
 - B. central duct
 - C. filter point
 - D. AHU inlet
32. Fresh air system is always recommendable for
- A. blood storage rooms
 - B. operation theatres
 - C. clinical labs
 - D. patient waiting areas
33. Capacity of AHUs are normally expressed in
- A. Number of RPM
 - B. Kg
 - C. Cycle of operation
 - D. TR (Ton Refrigeration)
34. Degree Celsius is the unit of
- A. Temperature
 - B. Heat
 - C. Pressure
 - D. Mass
35. With regard to Air-Conditioning, AHU generally means
- A. Air Humidifying Unit
 - B. Air Holding Unit
 - C. Air High-pressure Unit
 - D. Air Handling Unit
36. Approximate consumption of electric current by a 1.5 TR Window AC unit is
- A. 10 A
 - B. 100A
 - C. 1 A
 - D. 50 A
37. Which of below mentioned instrument can be used to measure electric current drawn by an air conditioner safely
- A. Voltmeter
 - B. Watt meter
 - C. Megger
 - D. Tong tester

38. Comfortable range of R.H (Relative Humidity) related to air conditioning is
- | | |
|---------------|----------------|
| A. 40% to 60% | C. 90% to 100% |
| B. 10% to 20% | D. 80% to 90% |
39. Which of the following can be used to put out fire in an air-conditioner?
- | | |
|-------------------|--------------------|
| A. O ₂ | C. CO ₂ |
| B. Compressed Air | D. Water |
40. In an AC system, thermal insulation is required for
- | | |
|-------------------------|-------------------|
| A. Chilled Water Pipe | C. Compressor |
| B. Condenser Water Pipe | D. Condenser Pump |