1) The main function of an air conditioning unit is HVAC – heating ventilation and conditioning.

a) Agree
b) Disagree

2)Which is a wrong statement in terms of Good Air Conditioning

a) Provide human comfort in summer and winter
b) Provide human comfort under working condition
c) Maintain Properties of material
d) Decreases the efficiency of plant

3)Study of moist air is called

a) Psychology
b) Tribology
c) **Psychrometry**
d) Anthropology

4)A mixture of dry air and water vapour, when the air has diffused the maximum amount of water vapour into it, is called as

a) Dry air
b) Moist air
c) Saturated air
d) Specific air

5)Mass of water vapour present in _____ is called as Specific Humidity

a) $1m^3$ of wet air
b) $1m^3$ of dry air
c) 1kg of wet air
d) 1kg of dry air

6)The ratio of actual mass of water vapour in a given volume of moist air to the mass of water vapour in the same volume of saturated air at the same temperature and pressure is called as

a) Humidity ratio
b) Relative humidity
c) Absolute humidity
d) Degree of saturation

7)The temperature of air recorded by a thermometer, when it is not effected by the moisture present in the air, is called as

a) Wet bulb temperature
b) **Dry bulb temperature**
c) Dew point temperature

8)The temperature of air recorded by a thermometer, when the moisture present in it begins to condense

a) Wet bulb temperature

b) Dry bulb temperature
c) Dew point temperature
d) Dew point depression

9)The difference between dry bulb temperature and dew point temperature of air is called

a) Wet bulb temperature
b) Dry bulb temperature
c) Dew point temperature
d) Dew point depression

10)According to Daltons Law of partial pressure

a) $p_b=p_a - p_v$
b) $p_b=p_a + p_v$
c) $p_b=p_a \times p_v$
d) $p_b=p_a / p_v$

11) Wet bulb temperature is the temperature of air recorded by a thermometer, when

a) It is not effected by the moisture present in the air
b) Its bulb is surrounded by a wet cloth exposed to the air
c) The moisture present in it begins to condense

12)The dry bulb temperature lines, on the psychrometric chart are

a) Vertical and uniformly spaced
b) Horizontal and uniformly spaced
c) Horizontal and non-uniformly spaced
d) Curved line

13)The relative humidity lines on a psychrometric chart are

a) Vertical and uniformly spaced
b) Horizontal and uniformly spaced
c) Horizontal and non-uniformly spaced
d) Curved line

14)The horizontal and non-uniformly spaced lines on a psychrometric chart indicates

a) Dry bulb temperature
b) Wet bulb temperature
c) **Dew point temperature**
d) Specific humidity

15)A low wet bulb temperature indicates very _____ humidity

a) Low
b) High

16)When relative humidity is 100%, then the air is said to be

a) Dry air

b) Moist air
c) Saturated air
d) Specific air

17)The heating of air, without change in its specific humidity, is known as

a) Sensible Heating
b) Sensible cooling

18)The dry bulb temperature during sensible heating of air

a) Remains constant
b) Increases
c) Decreases

19)During dehumidification process, the relative humidity

a) Remains constant
b) Increases
c) Decreases

20)Efficiency of heating coil and cooling coil is given by

a) B.P.F – 1
b) 1 – B.P.F
c) 1 / B.P.F
d) 1 + B.P.F

21)The atmospheric air at dry bulb temperature of 15°C enters a heating coil maintained at 40°C. The air leaves the heating coil at 25°C. The by-pass factor of heating coil is

a) 0.373
b) 0.4
c) 0.6
d) 0.67

22)The by-pass factor, in case of sensible cooling of air is given by

a) td_1-td_3/td_2-td_3
b) td_2-td_3/td_1-td_3
c) td_3-td_1/td_2-td_3
d) td_3-td_2/td_1-td_3

23)During humidification process _____ increases

a) Dry bulb temperature
b) **Specific humidity**

24)Sensible Heat factor is given by

a) SH/SH+LH
b) SH+LH/SH
c) LH-SH/SH

d) SH/LH-SH

25)The process, generally used in winter air-conditioning to warm and humidity the air is called as

a) Humidification
b) Dehumidification
c) **Heating and humidification**
d) Cooling and dehumidification

26)In Cooling with dehumidification Dry bulb temperature

a) Increases
b) Decreases
c) Remains constant

27)Which equipment of air conditioning is used to increase the moisture content of air

a) Dehumidifier
b) Filter
c) Humidifier
d) Blower

28)In heating with humidification, enthalpy of air entering and leaving the heating coil is 22.5 kJ/kg and 64.5 kJ/kg respectively. If enthalpy of air at the end of humidification is 38 kJ/kg find SHF.

a) 0.541
b) 0.65
c) 0.3
d) **0.369**