

Unit–5

Psychometrics and Thermodynamics

1. Psychrometrics is the study of:

- A) Dry air only
- B) Moist air properties
- C) Heat engines
- D) Steam turbines

Answer: B) Moist air properties

2. The amount of water vapor present in air is called:

- A) Humidity
- B) Enthalpy
- C) Entropy
- D) Density

Answer: A) Humidity

3. Relative humidity is expressed in:

- A) m/s
- B) Percentage (%)
- C) Joule
- D) Pascal

Answer: B) Percentage (%)

4. The temperature measured by ordinary thermometer is:

- A) Wet bulb temperature
- B) Dry bulb temperature
- C) Dew point temperature
- D) Critical temperature

Answer: B) Dry bulb temperature

5. The temperature at which condensation starts is called:

- A) Dew point temperature
- B) Saturation temperature
- C) Critical temperature

D) Boiling point

Answer: A) Dew point temperature

6. The instrument used to measure humidity is:

A) Manometer

B) Psychrometer

C) Thermometer

D) Barometer

Answer: B) Psychrometer

7. Sensible heating means:

A) Increase in temperature without moisture change

B) Increase in moisture only

C) Cooling process

D) Condensation process

Answer: A) Increase in temperature without moisture change

8. Latent heat is associated with:

A) Temperature change only

B) Phase change

C) Pressure change

D) Volume change

Answer: B) Phase change

9. The psychrometric chart is mainly used for:

A) Gas laws

B) Moist air analysis

C) Fluid mechanics

D) Refrigeration cycle

Answer: B) Moist air analysis

10. Enthalpy is represented by:

A) h

B) s

C) T

D) R

Answer: A) h

Part B: Fill in the Blanks

1. Psychometrics deals with properties of _____ air.

Answer: moist

2. Relative humidity is expressed in _____.

Answer: percentage

3. The temperature measured using normal thermometer is called _____ bulb temperature.

Answer: dry

4. Condensation starts at _____ point temperature.

Answer: dew

5. Moisture content in air is called _____.

Answer: humidity

6. The instrument used to measure humidity is _____.

Answer: psychrometer

7. Heat added without changing moisture content is called _____ heating.

Answer: sensible

8. Heat responsible for phase change is called _____ heat.

Answer: latent

9. Psychometric processes are represented on _____ chart.

Answer: psychometric

10. Enthalpy is denoted by _____.

Answer: h