

01. HEAT

01. What would be the final temperature of a mixture of 60 g of water at 40°C temperature and 60 g of water at 80°C temperature? []
A. 70°C **B.** 50°C
C. 60°C **D.** 65°C
02. If there is a thermal equilibrium between two bodies, then []
A. Two bodies have different temperatures.
B. Two bodies have same temperatures
C. The masses of two bodies are equal
D. The volume of two bodies are equal
03. How much energy is transferred when 1gm of boiling water at 100°C condenses to water at 100°C? []
A. 540 Cal **B.** 80 Cal
C. 60 Cal **D.** 720 Cal
04. Specific heat "S" =[]
A. $\frac{Q}{m \cdot \Delta T}$ **B.** $\frac{Q}{\Delta T}$
C. $Q \cdot \Delta T$ **D.** $\frac{m \cdot \Delta T}{Q}$
05. Latent heat of fusion of ice is
..... Cal/gm []
A. 100 **B.** 540
C. 80 **D.** 720
06. The S.I. unit of specific heat []
A. J.Kg/K **B.** J/Kg-K
C. J.Kg-K **D.** J/gm-K
07. Which of the following is a warming process []
A. Evaporation **B.** Condensation
C. Boiling **D.** All the above
08. Match the following []
- | Substance | Specific heat |
|----------------|---------------|
| (i) Water | (a) 0.95 |
| (ii) Sea water | (b) 0.50 |
| (iii) Ice | (c) 1 |
| (iv) Mercury | (d) 0.033 |
09. Boiling point of water at normal atmospheric pressure is ____ []
A. 0°C **B.** 100°C
C. 110°C **D.** -5°C
10. Melting is a process in which solid phase changes to ____ []
A. Liquid phase
B. Liquid phase at constant temperature
C. Gaseous phase
D. Any phase
11. Three bodies A, B and C are in thermal equilibrium. The temperature of B is 45°C. Then the temperature of C is []
A. 45°C **B.** 50°C
C. 40°C **D.** any temperature
12. Which process is different []
A. formation of mist
B. formation of fog
C. formation of rain
D. formation of clouds
13. When ice melts, its temperature
..... []
A. remains constant **B.** increases
C. decreases **D.** can not say
14. Absolute zero temperature(Infinite cold) is []
A. -273°C **B.** 0°C
C. 273 K **D.** 273°C
15. Flows from a body at higher temperature to a body at lower temperature. []
A. Heat **B.** Temperature
C. Specific heat **D.** Latent heat
16. An object 'X' at 10°C and another object 'Y' at 10K are kept in contact. Then heat will flow from to []
A. Y to X **B.** X to Y
C. either A or B **D.** None

Choose the correct answer:

- A.** (i)-a, (ii)-c, (iii)-b, (iv)-d
B. (i)-c, (ii)-a, (iii)-b, (iv)-d
C. (i)-d, (ii)-a, (iii)-b, (iv)-c
D. (i)-d, (ii)-c, (iii)-b, (iv)-a

17. is a cooling process. []
 A. Evaporation B. Condensation
 C. Freezing D. Deposition
18. The latent heat of fusion of ice is
 cal/gm. []
 A. 540 B. 90
 C. 80 D. 450
19. Temperature of a body is directly
 proportional to []
 A. Number of molecules in it
 B. Density of the body
 C. Average kinetic energy of molecules
 D. The gap between molecules
20. According to the principle of method of
 mixtures, the net heat lost by the hot
 bodies is equal to
 []
 A. The net heat lost by cold bodies
 B. The net heat gained by cold bodies
 C. The net heat gained by hot bodies
 D. None of these
21. Ice floats on water because ..[]
 A. Water is denser than ice
 B. Ice is denser than water
 C. Water has less density
 D. None of the above
22. When water freezes..... []
 A. Volume increases
 B. Volume decreases
 C. No change in volume
 D. None of the above
23. This is utilized for phase change of a
 substance []
 A. Specific heat B. Latent heat
 C. Temperature D. Humidity
24. Latent heat "L" = []
 A. $\frac{Q}{m \Delta T}$ B. $\frac{Q}{\Delta T}$
 C. $\frac{Q}{m}$ D. $\frac{m}{Q}$
25. List of Factors
 (i) Surface area
 (ii) Temperature
 (iii) Humidity in air
 Rate of evaporation depends upon which
 factors []
 A. (i) B. (i) and (iii)
 C. (i), (ii) and (iii) D. only (iii)
26. The amount of water vapour present in
 air is []
 A. Atmospheric pressure
 B. Humidity
 C. Temperature
 D. Fog
27. The process of escaping molecules from
 the surface of a liquid at any
 temperature is called []
 A. Boiling B. Evaporation
 C. Condensation D. Freezing
28. Specific heat of water []
 A. 1.00 cal/gm-°C B. 0.01 cal/gm-°C
 C. 1.20 cal/gm-°C D. 0.10 cal/gm-°C
29. Which is wrong ? []
 A. 15°C = 288 K B. -20°C = 253 K
 C. 100°C = 373 K D. -45°C = 238 K
30. The latent heat of vaporization of water
 is []
 A. 540 cal/gm B. 80 cal/gm
 C. 90 cal/gm D. 540 cal/Kg
31. Absolute temperature scale is also
 called as []
 A. Celsius scale
 B. Fahrenheit scale
 C. Kelvin scale
 D. either B or C
33. Temperature of a substance 'X' is 45°C.
 Temperature of substance 'Y' is 45°C.
 Temperature of substance 'Z' is 60°C.
 Then which of the following statement is
 correct? []
 A. X, Y, Z are in thermal equilibrium
 B. X and Y are in thermal equilibrium
 C. Y and Z are in thermal equilibrium
 D. Data is insufficient
34. An ice cube is placed in a cup of water.
 Even a single drop of water is added to
 it, the water will over flow. If the ice cube
 was melted in that situation, then
 []
 A. Water over flows from the cup
 B. Water does not over flow from cup
 C. We can not say
 D. None of these

35. Match the following []
- | | |
|-------------------|--------------------------------|
| Group-I | Group-II |
| (i) Evaporation | (a) Liquid \rightarrow Gas |
| (ii) Condensation | (b) Solid \rightarrow Gas |
| (iii) Sublimation | (c) Gas \rightarrow Liquid |
| | (d) Liquid \rightarrow Solid |

Choose the correct answer:

- A. (i)-a, (ii)-b, (iii)-d
 B. (i)-a, (ii)-c, (iii)-b
 C. (i)-b, (ii)-c, (iii)-d
 D. (i)-b, (ii)-a, (iii)-c

36. Match the following []
- | | |
|-----------------------------|-------------|
| Group-I | Group-II |
| (i) 1 calorie | (a) 273K |
| (ii) 0°C | (b) 4.186 J |
| (iii) 100°C | (c) 373K |
| | (d) 100K |

Choose the correct answer:

- A. (i)-a, (ii)-d, (iii)-c
 B. (i)-a, (ii)-c, (iii)-b
 C. (i)-b, (ii)-c, (iii)-d
 D. (i)-b, (ii)-a, (iii)-c
37. The temperature of a steel rod is 330K. Its temperature in $^{\circ}\text{C}$ is ____ []
- A. 55°C B. 57°C
 C. 59°C D. 53°C

38. How many items are mismatched in the following []
- | | |
|-----------------------------|-------------------|
| Group-I | Group-II |
| (i) -273°C | (a) 0 K |
| (ii) 30°C | (b) 243K |
| (iii) -40°C | (c) -40K |
| (iii) 0°C | (d) 212K |

Choose the correct answer:

- A. 1 B. 2
 C. 3 D. 4
39. Sweating is []
- A. Evaporation B. Condensation
 C. Boiling D. Freezing

40. The amount of heat energy required to raise the temperature of 1 gram of water by 1°C is called []
- A. 1 Joule B. 1 erg
 C. 1 calorie D. either A or B

41. Raining is []
- A. Evaporation B. Condensation
 C. Boiling D. Freezing

42. Match the following []
- | | |
|---------|-------------------|
| Group-I | Group-II |
| (i) Q | (a) Latent heat |
| (ii) S | (b) Specific heat |
| (iii) L | (c) Heat |
| | (d) Temperature |

Choose the correct answer:

- A. (i)-a, (ii)-b, (iii)-c
 B. (i)-c, (ii)-b, (iii)-a
 C. (i)-b, (ii)-c, (iii)-a
 D. (i)-b, (ii)-a, (iii)-c

43. List of processes
- (i) Evaporation
 (ii) Condensation
 (iii) Freezing

Which of the above are warming processes []

- A. (i) and (ii) B. (ii) and (iii)
 C. (i), (ii) and (iii) D. only (ii)

44. Sultriness in summer days is due to []
- A. Wind B. Humidity
 C. either A or B D. None of these

45. Identify the wrong statement. []
- A. Evaporation takes place at constant temperature
 B. Boiling takes place at any temperature
 C. Melting is a cooling process
 D. Condensation is not a warming process

46. Arrange the following statements in an order.
- (i) Phase change occurs
 (ii) Molecules move apart
 (iii) Molecules absorb heat

Choose the correct answer: []

- A. (i)-(ii)-(iii) B. (ii)-(iii)-(i)
 C. (iii)-(ii)-(i) D. (iii)-(i)-(ii)
47. Fog is an example for []
- A. Solid in Air B. Liquid in Air
 C. Air in Liquid D. Gas in Air

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