

108 DAYS ONLINE COACHING DAY(38) -26/03/2020 THURSDAY

PHYSICS



Name of the candidate *

M3

Place of the candidate *

Thiruvananthapuram

WHAT APP NUMBER (JOINED IN SAIEDUCATION ONLINE COACHING PLATFORM) *

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Please watch the following videos and answer the following questions

<https://youtu.be/g2YN9JZeld4>
<https://youtu.be/6X0Br8NEyJo>
<https://youtu.be/hqptmVr5eOo>

1. Bose-Einstein Condensate have *

1 point

- (a) Very low kinetic energy
- (b) Low kinetic energy
- (c) High kinetic energy
- (d) Highest kinetic energy.

2. Which of the following is incorrect about plasma? *

1 point

- (a) Fluorescent tube and neon sign bulbs consist of plasma.
- (b) The gas gets ionised when electrical energy flows through it.
- (c) It consists of super-energetic and super-excited particles.
- (d) The plasma glows with colour which does not depend upon nature of gas.

3. On heating, a solid is converted to liquid. This change is called *

1 point

- Melting
- Fusion
- Diffusion
- Freezing

4. Which of the following phenomena always results in the cooling effect? *

1 point

- (a) Condensation
- (b) Evaporation
- (c) Sublimation
- (d) None of these

5. Which of the following causes the temperature of a substance to remain constant while it is undergoing a change in its state? *

1 point

- (a) Latent heat
- (b) Lattice energy
- (c) Loss of heat
- (d) None of these

6. The quantity of matter present in an object is called its: *

1 point

- (a) Weight
- (b) Gram
- (c) Mass
- (d) Density

7. .At higher altitudes: *

1 point

- (a)Boiling point of a liquid decreases
- (b)Boiling point of a liquid increases
- (c)No change in boiling point
- (d)Melting point of solid increases

8. S. I. unit of temperature is: *

1 point

- (a)Celsius
- (b)Fahrenheit
- (c)Kelvin
- (d)None of these

9. Light year is a measurement of *

1 point

- (A) Speed of aeroplanes
- (B) Speed of light
- (C) Stellar distances
- (D) Speed of rockets

10. Joule is the unit of *

1 point

- (A) Temperature
- (B) Pressure
- (C) Energy
- (D) Heat

11. The equation of state of some gases can be expressed as Vander wal equation i.e. $(P + a/v^2)(V - b) = RT$ Where P is the pressure, V is the volume, T is the absolute temperature and a, b, R are constants. The dimensions of 'a' are: *

1 point

- (a) $[M^1L^1T^{-1}]$
- (b) $[M^1L^{-5}T^1]$
- (c) $[M^2L^5T^{-1}]$
- (d) $[M^1L^5T^{-2}]$

12. The dimensional formula for Planck's constant is *

1 point

- (a) [MLT]
- (b) $[ML^2T^{-1}]$
- (c) $[M^2L^2T^{-1}]$
- (d) $[ML^1T^{-1}]$

13. Which of the following pairs has the same dimensions? *

1 point

- (a) Specific Heat and Latent Heat
- (b) Impulse and Momentum
- (c) Surface Tension and Force
- (d) Moment of Inertia and Torque

14. Which of the following remains constant during the motion of the projectile fired from a planet, *

1 point

- a. KE
- b. Momentum
- c. Vertical component of the velocity
- d. Horizontal component of the velocity

15. Slope of velocity time graph is *

1 point

- A. acceleration
- B. distance
- C. force
- D. momentum

16. Which law of motion is also called law of inertia? *

1 point

- A. 1st law
- . 2nd law 2
- C. 3rd law
- D. all 1st, 2nd and 3rd laws

17. Inertia of an object is quantitative measure of its *

1 point

- A. volume
- B. density
- C. mass
- D. temperature

18. Newtons laws do not hold good for particles *

1 point

- A. at rest
- B. moving slowly
- C. move with high velocity
- D. move with velocity comparable to velocity of light

19. Why light is said to have a dual nature? *

1 point

- It exhibits the properties of wave and particles.
- It exhibits the properties of reflection and diffraction.
- It has both interference and polarisation effect.
- None of the above

20. In optical fibres, the refractive index of the core is *

1 point

- (a) greater than that of the cladding.
- (b) equal to that of the cladding.
- (c) smaller than that of the cladding.
- (d) independent of that of cladding.

21. A star appears twinkling in the sky because of *

1 point

- (a) scattering of light by atmosphere
- (b) reflection of light by atmosphere
- (c) refraction of light by atmosphere
- (d) diffraction of light by atmosphere

22. On a rainy day, small oily films on water show brilliant colours. This is due to * 1 point

- a) scattering
- (b) interference
- (c) polarisation
- (d) none of these

23. Cyan, yellow and magenta are * 1 point

- primary colors
- white colors
- secondary colors
- tertiary colors

24. Image formed by plane mirror is * 1 point

- a. Real and erect
- b. Real and inverted
- c. Virtual and erect
- d. Virtual and inverted

25. 'Short-sight' in human eye can be corrected by using proper *

1 point

- (a) convex lens
- (b) concave lens
- (c) cylindrical lens
- (d) bifocal lens

Thankyou!!!

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