## **PHYSICS**

- Q1. A sheet of paper is placed on a table and a jug full of water is kept on it while pulling the paper suddenly, it is observed that the water does not spill out of jug. It is due to the inertia of the
  - (a) paper sheet
  - (b) jug & water in it
  - (c) hard
  - (d) table
- Q2. "Every Action has equal & opposite reaction" was discovered by
  - (a) Pascal
  - (b) Newton
  - (c) Edison
  - (d) Copernicus
- Q3. If a car travels a distance of 100 km & it takes 25 minutes to reach its destination, the speed of the car is
  - (a) 4 km/min
  - (b) 4 mt/min
  - (c) 400 mt/min
  - (d) None of these
- Q4. Name of scienctist who gave a relationship between mechanical energy & heat energy
  - (a) Darwine
  - (b) Jameswatt
  - (c) James precot joule
  - (d) sir Isac Newton
- Q5. A 1500 w electric geyser used every day for 2 hrs. Calculate the energy consumed?
  - (a) 90 kwh
  - (b) 30 kwh
  - (c) 750 kwh
  - (d) None of these
- Q6. As per Law of Conservation of energy during a process or system of transformation of energy, the energy is
  - (a) always lost
  - (b) always gained
  - (c) (c) neither gain nor lost
  - (d) (d) only gets converted for heat to mechanical energy

<b>Q7.</b>	An engine supplies 196 joules of energy. If the energy is supplied to a weight of 500 gms high can it be lifted		
	(a) 38.2	(b) 39.2	
	(c) 40.2	(d) 42	
Q8.	Which of the following force is respons	ch of the following force is responsible for taking a gas ballon upwards ?	
	(a) Gravitational force	(b) Muscular force	
	(c) Bouyant force	(d) Magnetic force	
Q9.	When white light is passed through a pred light. This is because	Velocity of red light in glass is less than that of violet light Refractive Index of glass is more for violet light wave length of violet light is less than that of red light	
	<ul><li>(b) Refractive Index of glass is more f</li><li>(c) wave length of violet light is less t</li></ul>		
Q10.	Pascal's law hold good for		
	(a) gases only	(b) liquid & fluid	
	(c) solids only	(d) for all	
Q11.	The Instrument for measuring electric current is known as		
	(a) Ammeter	(b) Voltameter	
	(c) Galvanometer	(d) Chronometer	
Q12.	Find at what temperature, the velocity of sound in air is 1.5 times the velocity at 70° C		
	(a) 357°C	(b) 387°C	
	(c) 350°C	(d) 290°C	

- If m<sub>1</sub> & m<sub>2</sub> be the masses of two bodies, d be the distance between them, the force of attraction **O13.** (F) as per the universal law of gravitation is
  - (a)  $F = \frac{m_1 m_2}{d^2}$
  - (b)  $F = G \frac{m_1 m_2}{d^2}$
  - (c)  $F = G \frac{m_1 m_2}{d}$
  - (d)  $F = G \frac{m_1^2 m_2^2}{d^2}$
- Q14. The acceleration due to gravity is zero at
  - (a) Poles
  - (b) equator
  - center of earth (c)
  - (d) None of these
- The energy of an electron in n the orbit of a hydrogen atom is given by Q15.
  - (a)  $E_n = -13.6 / n^2 \text{ ev.}$

  - (b)  $E_n = -13.6 / n^3 \text{ ev.}$ (c)  $E_n = +13.6 / n^2 \text{ ev.}$
  - (d)  $E_n = +13.6 / n^3 \text{ ev.}$
- The size of an atom is nearly Q16.
  - $10^{-5} \, \text{m}$ (a)
  - (b)
  - $10^{-8} \text{ m}$   $10^{-15} \text{ m}$   $10^{-10} \text{ m}$ (c)
  - (d)
- The force of repulsion between two parallel wires is 'f' when each one of them carries a certain Q17. current '1'. If the current in each is doubled, the force between them would be
  - 2f (a)
  - 3f (b)
  - (c) 4f
  - (d) f/4
- Q18. A fuse wires has eventially
  - High resistance & high melting point
  - Low resistance & high melting point (b)
  - (c) Low resistance 7 low melting point
  - (d) None of these

Q19. The emf of 3 identical cells connected in series in 6 V. The emf of each is

(a) 6 V

(b) 2 V

(c) 3 V

(d) None of these

Q20. One weber/mt 2 is equal to

(a)  $10^{-3}$  gram

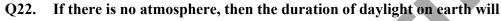
(b)  $10^{-4}$  gram

(c) 10<sup>4</sup> gram

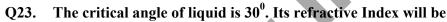
(d) None of these

Q21. A person using convex lense must be suffering from

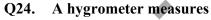
- (a) Myopia
  - (b) Astigmatism
  - (c) Hypermyopia
  - (d) None of these



- (a) Increase
- (b) decrease
- (c) remain same
- (d) None of these



- (a) 4
- (b) 2
- (c) 3
- (d) 0.5



- (a) The constant of Hydroscopic substance
- (b) Relataive density of solids
- (c) Relative density of liquids
- (d) amount of water vapour in air

Q25. Which of the given samples of equal volumes of Hydrogen & Oxygen at NTP has a larges number of molecules.

- (a) Hydrogen
- (b) Oxygen
- (c) Both have the same number of molecules
- (d) None of these

- A sample of gas is at 0°. What is the requirement of temperature for increasment to double the **O26.** r.m.s. speed of molecules?
  - $273^{0}$ (a)
  - $1000^{0}$ (b)
  - $-273^{0}$ (c)
  - $1092^{0}$ (d)
- Q27. (Equal volume of all gases, measured under the same condition of pressure & temperature contain the same number of molecules. This is known as
  - Boyle's law
  - Charle's law (b)
  - (c) Avogradous law
  - Ottovan law (d)
- Q28. The value of plank's Constant
  - (a) depends upon frequency
  - (b) is always same
  - depends upon energy (c)
  - (d) depends on wavelength
- Q29. Doping is a process of
  - purifying the semiconductor (a)
  - making the material crystalline (b)
  - adding controlled impurities into the material (c)
  - (d)

