

Inter (Part-II) 2023

Physics	Group-I	PAPER: II
Time: 20 Minutes	(OBJECTIVE TYPE)	Marks: 17

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- For which material medium, force between two charged particles is maximum?

- (a) Ammonia (b) Germanium ✓
(c) Mica (d) Teflon

2- The force between two similar unit charges separated one meter apart in air is:

- (a) Zero (b) One Newton
(c) $9 \times 10^9 \text{ N}$ ✓ (d) $9 \times 10^{-9} \text{ N}$

3- Kirchhoff's 2nd rule is based on:

- (a) Energy conservation ✓
(b) Mass conservation
(c) Charge conservation
(d) Momentum conservation

4- Which one has least resistance?

- (a) Galvanometer (b) Ammeter ✓
(c) Voltmeter (d) Ohm-meter

5- A voltmeter is always connected in:

- (a) Parallel ✓ (b) Series
(c) Perpendicular (d) Oblique

6- If we make magnetic field stronger, the value of induced current is:

- (a) Decreased (b) Increased ✓
(c) Vanishes (d) Constant

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- 7- The device which consume electrical energy is called:
(a) Generator (b) Motor ✓
(c) Load (d) Dissipaters
- 8- At high frequency, the current through a capacitor of A.C. circuit will be:
(a) Small (b) Infinite
(c) Zero (d) Large ✓
- 9- A.C. through inductor, the applied voltage:
(a) Leads the current $\frac{\pi}{2}$ ✓
(b) Lags the current $\frac{\pi}{2}$
(c) In phase
(d) Out of phase 180°
- 10- The crystalline structure of NaCl is:
(a) Trigonal (b) Cubical ✓
(c) Tetragonal (d) Hexagonal
- 11- Minimum diode required for full wave rectifier are:
(a) 1 (b) 3
(c) 2 ✓ (d) 4
- 12- Photovoltaic cell formed from:
(a) Arsenic (b) Carbon
(c) Germanium (d) Silicon ✓
- 13- Unit of Planck's constant is same as that of:
(a) Entropy (b) Angular momentum ✓
(c) Acceleration (d) Force
- 14- Stefan Boltzmann Law is given by:
(a) $E = hf$ (b) $E = mc^2$
(c) $E = \sigma T^4$ ✓ (d) $\lambda \times T = \text{constant}$

- 15- Radiation produced from TV picture tube is:
(a) Gamma rays (b) X-rays ✓
(c) Infrared rays (d) β -rays
- 16- What is difference in isotopes?
(a) Number of electron
(b) Number of proton
(c) Charge number
(d) Number of neutron ✓
- 17- A proton consists of quark which are:
(a) All up (b) One up, two down
(c) Two up, one down ✓
(d) All down