

Inter (Part-II) 2020

Physics		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- The unit of electromotive force is:
 (a) Ampere (b) Pascal
 (c) Joule (d) Volt ✓
- 2- The power consumed by choke is:
 (a) Large (b) Small ✓
 (c) Zero (d) Infinite
- 3- Which of the following have highest frequency and shortest wavelength:
 (a) X-rays (b) Ultraviolet rays
 (c) γ -rays ✓ (d) Infrared rays
- 4- Speed of β -particle is nearly equal to:
 (a) 1×10^8 m/sec ✓ (b) 10^7 m/sec
 (c) 3×10^8 m/sec (d) 10^6 m/sec
- 5- RC factor has same dimensions as that of:
 (a) Potential difference (b) Resistance
 (c) Time ✓ (d) Capacitance
- 6- Output resistance of an op-amp is:
 (a) High (b) Zero ✓
 (c) Low (d) Equal to input resistance
- 7- n , equal resistors are first connected in series, then in parallel, then ratio of their equivalent resistance is:
 (a) n (b) $\frac{1}{n^2}$
 (c) n^2 ✓ (d) $\frac{1}{n}$

- 8- The size of base terminal of transistor is of order of:
 (a) 10^6 m (b) 10^{-6} m ✓
 (c) 10^{-4} m (d) 10^{-2} m
- 9- In nuclear radiation, track of α -particles is:
 (a) Erratic (b) Thin
 (c) Continuous ✓ (d) Discontinuous
- 10- Shunted galvanometer is called:
 (a) Voltmeter (b) Ohmmeter
 (c) Ammeter ✓ (d) Potentiometer
- 11- The direction of field lines around an isolated negative charge ($-q$) is along:
 (a) Radially outward (b) Radially inward ✓
 (c) Circular (d) Spherical
- 12- At resonant condition, the RLC series circuit becomes:
 (a) Pure inductive (b) Pure capacitive
 (c) Pure resistive (d) Inductive and capacitive ✓
- 13- Eddy current is one cause of energy loss in:
 (a) A.C. generator ✓ (b) Transformer
 (c) D.C. motor (d) D.C. generator
- 14- Which of the following is not a polymer:
 (a) Nylon (b) Polythene
 (c) Glass ✓ (d) Polystyrene
- 15- Brightness of screen of CRO is controlled by:
 (a) Grid ✓ (b) Anode
 (c) Filament (d) Cathode
- 16- When speed of object is half of the speed of light, then:
 (a) $t = \frac{2}{\sqrt{3}} t_0$ (b) $t = \frac{3t_0}{\sqrt{2}}$ ✓
 (c) $t = 2t_0$ (d) $t = t_0$
- 17- Lifetime of metastable state is:
 (a) 10^{-1} s (b) 10^{-3} s ✓
 (c) 10^{-5} s (d) 10^{-8} s

2. Write

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