

NEET 2024 Physics Predicted Question Paper 1

Ques.1 A long solenoid has 800 turns per meter length of the solenoid. A current of 1.6 A flows through it. The magnetic induction at the end of the solenoid on its axis is:

- A. $16 \times 10^{-4} \text{T}$
- B. $8 \times 10^{-4} \text{T}$
- C. $32 \times 10^{-4} \text{T}$
- D. $4 \times 10^{-4} \text{T}$

Ques.2 In an elliptical orbit under gravitational force, in general

- A. $T \propto r^3$
- B. $T \propto r$
- C. $T^3 \propto r^2$
- D. $T^2 \propto r^3$

Ques.3 Which of the following circular rods (given radius r and length l) each made of the same material as whose ends are maintained at the same temperature will conduct most heat?

- A. $r=2r_0; l=2l_0$
- B. $r=2r_0; l=l_0$
- C. $r=r_0; l=l_0$
- D. $r=r_0; l=4l_0$

Ques.4 Which of the following is not correct for SHM

- A. $F \propto x$
- B. $U \propto x^2$
- C. $v \propto x$
- D. $a \propto x$

Ques.5 Which of the following is used or is in forward bias?

- A. Photodiode
- B. Light emitting diode
- C. Zener diode
- D. P side connected to -ve terminal

Ques. 6 Which of the following is/are copper loss/losses in a transformer?

- A. Hysteresis loss

- B. Eddy current loss
- C. Heat loss in the primary and second coils
- D. Both (1) & (2)

Ques.7 The ground state energy of an H-atom is 13.6eV. The energy needed to ionize H-atom from its second excited state is :

- A. 1.51 eV
- B. 3.4 eV
- C. 13.6 eV
- D. 12.1 eV

Ques.8 Which of the following is used or is in forward bias?

- A. Photodiode
- B. Light emitting diode
- C. Zener diode
- D. P side connected to -ve terminal

Ques.9 During β decay of a parent radioactive element, the daughter is ____ with the parent.

- A. Isotope
- B. Isobar
- C. Isotone
- D. Isomer

Ques.10 A capacitor is charged using a battery and E heat is lost in the process. Now a dielectric slab of K-2 is inserted with the battery connected. The new energy stored in the capacitor is?

- A. 4E
- B. 2E
- C. E
- D. E/2