

UP Board Class 12 Physics Question Paper 2026 Memory Based

Time Allowed :3 Hours	Maximum Marks :70	Total Questions :21
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General Instructions

1. Please read the instructions carefully.
2. This Question Paper consists of 21 questions in two sections : Section-A Section-B.
3. Section-A has Objective type questions, whereas Section-B contains Subjective type questions.
4. Please read the instructions carefully. Out of the given $(5 + 16) = 21$ questions, a candidate has to answer $(5 + 10) = 15$ questions in the allotted (maximum) time of 2 hours.
5. Please read the instructions carefully. All questions of a particular section must be attempted in the correct order

1. How a galvanometer be converted into an ammeter and a voltmeter? Express by the correct circuit.

2. Explain the construction and working theory of a transformer.

3. What are electromagnetic waves? By drawing its propagation diagram, show the electric field and magnetic field component in it.

4. How is p-n junction diode used as a half-wave rectifier? Explain its working by circuit diagram. Also show input and output waveforms.

5. What is wavefront? Explain refraction of waves by the principle of Huygens secondary wavelets.

6. Establish an expression of relation between resistance of arms of Wheatstone bridge in its equilibrium position with the help of Kirchhoff's law.

9. A force of 80 Newton acts between two point charges placed at a certain distance in air. When these same charges are placed in a dielectric medium at the same distance, the force becomes 8 Newton. The dielectric constant of the medium will be:

- (A) 10
- (B) zero
- (C) 0.1
- (D) 8

8. In a parallel resonant (L-C) circuit, at the condition of resonance, the current flowing from the source is:

- (A) infinite
- (B) zero
- (C) definite
- (D) none of these

9. In which part of the electromagnetic spectrum is the Lyman series of hydrogen found?

- (i) Infrared
- (ii) Visible
- (iii) X-rays
- (iv) Ultraviolet

10. On immersing a convex lens in water, its focal length and nature will be:

- (i) will increase, convex lens
- (ii) will decrease, convex lens
- (iii) will increase, concave lens
- (iv) will decrease, concave lens

11. The energy gap between the valence band and conduction band in a semiconductor is approximately:

- (i) 5 eV
- (ii) 1 eV
- (iii) 15 eV
- (iv) Zero

13. Force of 80 newton works between two point charges placed in air at a fixed distance between them. When these charges are placed at the same distance in a dielectric medium, the value becomes 8 newton. The dielectric constant of the medium will be

- (A) 10
 - (B) zero
 - (C) 0.1
 - (D) 8
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