

Bihar Board Class 12 Sample Papers

The Question pattern is as follows:

- Section -1 is Objective type and Section -2 is non-objective.

1. Carrying Total marks-28.

2. With total number of Questions: 25

- Carrying total marks -42. It's divided into

1. Short answer type having 11 questions. Each carrying 2 marks each

2. Long answer type having 5 Questions. Each carrying 5 marks each

SECTION -1(OBJECTIVE TYPE)

In the following questions Q no 1 to 10 there are only one correct answer. You have to choose that correct answer

1. S.I unit of flux is

1. Ohm
2. Weber
3. Telsa
4. None

Answer- 1

2. The relation between geometric length (L_s) an magnetic length (L_m) is---

1. L_m=5/6 L_s
2. L_m=6/5 L_s
3. L_m = L_s
4. L_m = 2L_s

Answer- 1

3. Refractive index of glass and water are $\frac{3}{2}$ and $\frac{4}{3}$ respectively for say of light going to water for glan, the critical only will be

1. Sin⁻¹ (8/9)
2. Sin⁻¹(9/8)
3. Sin⁻¹(3/4)

4. $\sin^{-1}(2/3)$

Answer- 1

4. The modulation index in amplitude modulation is-

1. Always zero
2. Between 0 & 1
3. Between 1 & infinity
4. None of these

Answer- 3

5. Air bulb inside water shines due to

1. Refraction
2. Reflution
3. Total inverse reflection
4. None of these

Answer- 3

6. When a dielectric is introduced in between a parallel plate capacitor the capacitance of the capacitor :

1. Decreases
2. Increase
3. Remains the same
4. None of these

Answer- 2

7. In a double slit experiment the distance between the slits is 1mm and the distance of the screen from the slit is 1m. If light of wavelength 6000 Angstrom is used, then the fringe width is:

1. 0.4 mm
2. 0.5 mm
3. 0.6 mm
4. 0.8 mm

Answer- 3

8. The radius of curvature of the path of a charged particle in a uniform magnetic field is directly proportional to the:

1. Ground waves
2. Sky waves
3. Surface waves
4. Space waves

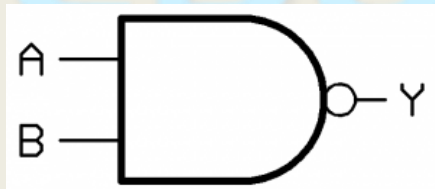
Answer- 2

9. Frequencies in the UHF range normally propagate by means of-

1. ground waves
2. sky waves
3. surface waves
4. space waves

Answer- 4

10. The given symbol represents which gate?



1. AND
2. OR
3. NAND
4. NOR

Answer- 3

Instructions from question 11 to 15. Two statements (statement I and statement II) are given. Out of the four options a, b, c, d choose the correct option on the basis of the questions.

Marks awarded- 5 *1 =5

1. If both the statements are true and statement II is the correct explanation of statement I.
2. If both the statements are true and statement II is not the correct explanation of statement I
3. If statement I is true and statement II is false
4. If statement I is false and statement II is true.

1. Statement I: a P.N junction diode acts as a natural transistor.

Statement II: P.N junction diode operates in the forward bias and not in the reverse bias.

Answer- 4

2. Statement I: according to Faraday electromagnetic induction, the negative rate of change of magnetic flux is equal to the induced emf.

Statement II: lenz's law explains the negative sign in the basis of conservation of energy.

Answer- 3

3. Statement I: energy is released when heavy nuclei undergoes fission or light nuclei undergoes fusion.

Statement II: for heavy nuclei, binding energy per nucleon increases with Z while for light nuclei it decreases with increasing Z

Answer- 3

4. Statement I: when a beam of white light passes through a glass, the light splits into constituents colours.

Statement II: the dispersion of light takes place because the refractive index of a medium depends on the wavelength of light

Answer- a

5. Statement I: if X is susceptibility and T is absolute temperature, the X-T graph of a diatomic substance is a straight line parallel to T axis.

Statement II: diamagnetic materials follow curie law.

Answer- 3

Directions for questions 16 to 18:

Select the correct answer to each questions:

16. Radius of hydrogen atom

1. Equal to Z
2. Equal to square of n
3. Equal to Z inverse
4. Equal to n

Answer- 2

17. Choke coil is an inductor of

1. High reactance
2. Low reactance
3. High resistance
4. Low resistance.

Answer-a, c

18. The distance of object from concave mirror of focal length 15 cm, so that the image is three times magnified is:

1. 7.5 cm
2. 10 cm
3. 17.5 cm
4. 20 cm

Answer- b, d

Directions for questions 19 to 20: 19 to 22 are two columns matching type. Match it correctly.

19. Virtual image of real object	(a) Wave, wavelength of the size of the object
20. Total internal reflection	(b) Blue colour of sky
21. Scattering	(c) Optical fibre
22. Diffraction	(d) Convex mirror.

Answers-

- 19. (d)
- 20. (c)
- 21. (b)
- 22. (a)

