

Questions for Internal exam of B.Sc. ^{MC} Sem II - physics (Hons)
Core paper - (3)

Answer any two of the following

- ① Obtain differential form of Gauss's Law
- ② Define Electric field and Electric field Intensity. Find electric field Intensity at a point due to an electric dipole.
- ③ What is electric polarisation and displacement vector. Find a relation between them
- ④ State and prove Newton's Theorems
- ⑤ Explain hysteresis and hysteresis loop.

Question for Internal exam of physics (Hons)

Core paper (4)

Answer any two questions

- ① What are longitudinal and Transverse waves. Establish an equation of a progressive wave.
- ② Derive Newton's formula for velocity of sound. What is Laplace's Correction on it.
- ③ What do you mean by wave theory of light given by Huygen. ~~Define~~ Define a Primary wavelet and a Secondary wavelet.
- ④ Differentiate the interference produced by division of amplitude and by division of wavefront.

Teachers Signature.....

Question for practical exam.
Physics Core.

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Answer any one

- ① Describe the theory for determination of the inductance of a coil by Andersson's method.
- ② Write the theory for the determination of wavelength of light by Newton's ring method.