

Questions for Jorkand exam

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B.Sc. Sem II physics (Hons) (2020-2023)

Core paper - (3)

Answer any two questions

2x5 = 10

- (1) Answer any two of the following
 - (a) obtain Gauss's Law in differential form
 - (b) Define Norton's theorem
 - (c) Define with example "the Conservation of charge".
 - (d) Define electric potential.
- (2) Describe with vector diagram the Anderson's Bridge method to determine inductance of a coil.
- (3) Find the electric potential at any point due to an electric dipole.
- (4) What is hysteresis and hysteresis loop.

Question for Internal exam

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B. Sc. physics (Hons) Sem II
(2020-2023)

Core paper (4)

Answer any two questions

2X5=10

- ① What do you mean by phase velocity and group velocity? Establish relation between them
- ② What are the differences between Fresnel's and Fraunhofer's class diffraction?
- ③ What is a zone plate? Show that it has multiple foci.
- ④ What is Rayleigh Criterion for the limit of resolution? obtain expression for resolving power of grating.
- ⑤ Describe construction and working of F.P. interferometer,

Questions for Interdgrade

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B.Sc. Physics (Hons) Sem II (2020, 2021)

Sub - physics practical

Answer any one of the following

- ① Determine with theory the wavelength of sodium light using Newton's Ring.
- ② Compare the capacitances of two capacitors using DeSauty Bridge.
- ③ Determine the inductance of a coil using Anderson's Bridge.