

Department of Physics
Government Degree College Kishtwar

Question paper for B.Sc. Sem 6th Non-CBCS 2021

Subject: PHYSICS

Course Code: PH-601

Note: Attempt any four question. Each question carry equal marks.

The soft copy of answer book is to be sent to ajay595shan@gmail.com within 3 hours after the commencement fo exam.

Q.1 Describe the Laue's theory of X-ray Diffraction.

Q.2 Define reciprocal lattice. Show that the reciprocal lattice for a simple cubic structure is also simple cubic.

Q.3 Give an account of quantum theory of Paramagnetism and discuss the low and high temperature cases.

Q.4 Give the general principle of operation of small signal amplifiers. Explain distortion in amplifiers and noise in electronic circuits.

Q.5 Draw the circuit diagram of phase shift oscillator. Explain its working.

Q.6 What is an optical fibre. Give its construction and classification.

Q.7 Explain Einstein's prediction and derive Einstein's relations with reference to lasers.

Q.8 Discuss Einstein's model of specific heat of solids. What are its drawbacks.
