

Jashore University of Science and Technology

Department of Physics

Bachelor of Science with Honours in Physics

2nd semester of 3rd year (2024–2025)

Course code: PHY 3205

Course title: Solid State Physics I

Class test no.: 1

Date: 03 May 2026

Roll:

1. Define Bravais lattice and crystal with examples. [4]
2. Define the term Reciprocal Lattice. Show that the reciprocal lattice of a BCC lattice is a FCC. [6]
3. Define atomic packing fraction. Calculate the atomic packing fraction of a FCC lattice. [5]
4. What are Miller indices? Draw (010), (101) and (121) plane of a simple cubic lattice. [5]