

Model Questions_ PhD Entrance exam_Materials Research Centre

S. No.	Question	Correct option
1.	Among the defects listed below, which defect is an equilibrium defect? (a) Dislocation (b) Twin Boundaries (c) Stacking Faults (d) Point defects	(d)
2.	How many bravais lattices and crystal structures exist? (a) 14 and 7 (b) 7 and 14 (c) 12 and 7 (d) 7 and 12	(a)
3.	Ice in water is an example of (a) One component- one phase system (b) One component- Two phase system (c) Two component- Two phase system (d) Two component- One phase system	(b)
4.	Which of the following is true for FTIR spectrum of nitrogen (N ₂)? (a) It is similar to that of methanol (b) It has a complicated pattern (c) N ₂ is IR inactive (d) Shows two peaks at 1710 and 1650 cm ⁻¹ .	(c)
5.	A semiconductor when cooled to absolute zero temperature behaves like a (a) Conductor (b) Semiconductor (c) Insulator (d) All of the above	(c)