



Academic year 2023-2024 (Odd Sem)

DEPARTMENT OF
MECHANICAL ENGINEERING
CIE I

Date	8 th January 2024	Maximum Marks	50
Course Code	ME232AT	Duration	90 Minutes
Course Name	MATERIALS SCIENCE FOR ENGINEERS	Sem: 3	

Q. No.	Questions	M	BT	CO
1.	Describe all the primary and secondary bonds with examples.	10	2	1
2.	Explain energy bands for metals, Semiconductors, and insulators with a neat sketch.	10	3	1
3.	Calculate Atomic packing factor for FCC unit cell. Define the following with respect to solid materials: i) space lattice, ii) unit cell iii) Atomic Packing Factor. 6m	04 06	4 1	1 1
4.	Explain properties and applications of ceramics and composites with examples.	10	2	1
5.	Explain the following defects: vacancy, edge dislocations, grain boundary.	10	2	1

BT-Blooms Taxonomy, CO-Course Outcomes, M-Marks

Marks Distribution	Particulars		CO1	CO2	CO3	CO4	L1	L2	L3	L4	L5	L6
	TEST	Marks	50	-	-	-	06	30	10	4		
