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Department of Basic Sciences - Physics

Sl.No	Question Bank Module-4	COs	RBT Levels
1	List the assumptions of Quantum Free Electron Theory.	CO4	L1
2	Explain variation of Fermi factor with temperature and energy.	CO4	L2
3	Define Fermi Energy. Explain the Failures of CFET.	CO4	L2
4	Define Superconductivity. Explain Meissner effect.	CO4	L2
5	Define Fermi factor. Explain temperature dependence on resistivity in superconductors.	CO4	L2
6	Distinguish between Type-1 and Type-2 superconductors.	CO4	L2
7	Discuss qualitatively the BCS theory of superconductivity for negligible resistance of metal at temperatures close to absolute zero.	CO4	L2
8	What are High temperature Superconductors	CO4	L2
9	What is Josephson effect and Explain DC and AC Josephson effects?	CO4	L3
10	What are SQUIDS .Give the qualitative explanation of DC and RF Squid with the help of a neat sketch?	CO4	L2
11	Define the term Critical field. Describe temperature dependence of critical field.	CO4	L2
12	Write a note on Density of states	CO4	L2