M.Sc. DEGREE EXAMINATION,NOVEMBER 2018
II Year IV Semester
Core Elective
MATERIAL SCIENCE

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. What is cement?
2. What are composites?
3. Write the uses of polymers.
4. Name the classification of polymers based on molecular forces.
5. Write the advantages of dielectric materials.
6. Give examples for dielectric materials.
7. What is a laser?
8. Define metallization.
9. Define paramagnetic materials.
10. Give examples for diamagnetic materials.
11. Name the factors affecting permeability and hysteresis loss.
12. What is meant by oxidation?

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Write the advantages of composite materials.
14. List out the characteristics of polymers.
15. What are applications of dielectric materials?
16. What are the basic requirements obtained from photolithography?
17. Writ short note on Alnico magnetic alloy.
18. What is the mechanism of piezoelectricity?
19. What is meant by cellular plastics?

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. Explain the various steps involved in the production of ceramics.
21. Define liquid crystal polymer. What are its properties? Where it is used?
22. Write the properties of dielectric materials.
23. With neat diagram explain the construction and working of junction lasers.
24. Differentiate hard and soft magnetic materials.

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