

**M.Sc. DEGREE EXAMINATION, EVEN SEMESTER 2021**  
**II Year IV Semester**  
**Material Science**

**Max.marks :25**

Answer any **FIVE** questions ( $5 \times 5 = 25$ ) Marks

1. What are ceramics and composites. What are the properties of composite materials? What are the disadvantages of ceramics?
2. Why do polymers have different properties? What is the hardest type of rubber? Which test is performed for rubber?
3. List of the differences between ferroelectric, piezoelectric and pyro electric materials
4. What process is used in semiconductor industry to fabricate integrated circuits?
5. Discuss the applications of permanent magnets based on their properties.
6. Why is concrete gray in colour? What is the purpose of cement in concrete?
7. Which category of polarizability strongly depends on temperature and frequency? How do you calculate polarisation?