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Roll No

CM-402 (GS)
B.E. IV Semester Examination, June 2020
Grading System (GS)
Material Science And Technology
Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Define Poisson's ratio.
b) Define the correlation between hardness and tensile strength.
2. Define the important mechanical properties which affecting the selection of a material.
3. Discuss various laws of corrosion stating relation between their film thickness and time. Quote the metals obeying, these laws.
4. Discuss the use of cast iron and stainless steel as a material of construction in chemical process Industries.
5. Briefly discuss about the Miller Indices for plane as well as direction. Explain the crystal imperfections.
6. Explain the influence of concentration and temperature on cell potential.
OR
Briefly describe the two techniques that are used for galvanic protection.
7. Describe the phenomenon of dynamic equilibrium as it applies to oxidation and reduction electrochemical reactions.
OR
What do you understand by electronic structure of a solid.
8. Discuss the following.(Any two)
 - a) Cavitation corrosion
 - b) Utilization of graphite in industry
 - c) Intrinsic semiconductors
