

Question bank for UT1 SUB- MEM (313317) Course- ME3K

CHAPTER 1 BASICS OF ENGINEERING MATERIALS

Questions for 2 Marks

1. Define Ductility and Malleability
2. Define Hardness and Toughness.
3. Define Fatigue and Creep
4. Define Metals and non-metals
5. Define Unit cell
6. List physical properties of materials

Questions for 4 Marks

1. Classify Engineering materials with example
2. Explain steps involved in sample preparation for microscopic examination
3. Explain Crystal structure of metallic Element with example
4. Draw Iron Carbon Equilibrium Diagram
5. Explain Various phases observed in Iron Carbon Equilibrium Diagram
6. Explain critical Temperatures in Iron Carbon Equilibrium Diagram
7. Explain critical Reactions in Iron Carbon Equilibrium Diagram
8. What is purpose of metallurgical Microscope state its types

CHAPTER 2 Steels and Cast Iron

Questions for 2 Marks

1. Define Steel what is carbon content in steels
2. Classify steels on basis of carbon content
3. Classify steels on basis of form and use
4. What is composition of Alloy steels
5. Advantages and Disadvantages of Alloy steels
6. State Types of Cast Iron
7. State specification of cast Iron

Questions for 4 Marks

1. State Properties Of Stain less Steel (Any Four)
2. State Properties Of Spring Steel (Any Four)
3. Classification of Stain less with Composition
4. State Different types of steels required for
i) Shaft ii) Axles iii) Nut iv) Machine tool Bed
5. State Properties of White Cast Iron

6. State properties of Grey Cast Iron
7. Differentiate between White and Grey Cast Iron
8. State the properties of nodular Cast Iron by giving its applications.
9. State composition of following
 - i) Fe 400 K
 - ii) FeE 270
 - iii) St 42
 - iv) C 30