

- Q.27 Explain in brief types of cast iron and its uses.
- Q.28 Write a short note on ferrous metals with examples.
- Q.29 Define Ceramics? Also list their properties and applications
- Q.30 Name few properties and uses of wrought iron
- Q.31 Classify non ferrous metals with examples
- Q.32 Explain in brief uses of engineering materials in chemical industry.
- Q.33 Explain in brief various electrical properties of engineering materials
- Q.34 Explain various type of glass with applications.
- Q.35 Explain different types of steel available with their applications.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain Iron carbon (Fe-C) phase diagram with neat sketch.
- Q.37 Explain various mechanical properties of engineering materials.
- Q.38 Write a short note on any two:
- Types and uses of Aluminium alloy
 - Stainless steel and its application
 - Importance of engineering materials

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3rd Sem / Chem
Subject:- Introduction to Engineering Materials/
Engg. Materials

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Rusting is
- Decay of metal due to reaction with environment
 - both (a) and (c)
 - accumulation of metal
 - None of above
- Q.2 Bronze is an alloy of
- Tin and lead
 - Aluminum and copper
 - Copper and Tin
 - None of above
- Q.3 Non metallic material is _____
- iron
 - clay
 - aluminium
 - All of the above
- Q.4 Copper is used for making electrical wires due to its good:

- a) Ductility b) Brittleness
 c) Malleability d) None of above
- Q.5 Cast iron is produced from furnace known as
 a) Blast furnace c) Cupola furnace
 b) open hearth furnace d) None of the above
- Q.6 The impurest form of iron is
 a) cast iron c) pig iron
 b) Wrought iron d) None of the above
- Q.7 Copper pyrite is an ore of
 a) Copper c) cast iron
 b) Aluminium d) all of these
- Q.8 BIS Stands for
 a) Bureau of Indian standard
 b) Bureau of Indian specification
 c) both (a) and (b)
 d) None of these
- Q.9 Malleability is property related to:
 a) Wire making c) both (a) and (b)
 b) Thin sheets making d) None of these
- Q.10 Ceramics belongs to category of:
 a) Inorganic non-metallic material
 b) Composite material
 c) ferrous material
 d) All of the above

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define PVC
 Q.12 Name any one semiconducting material.
 Q.13 Define Tensile strength
 Q.14 What is ductility
 Q.15 Name any one non ferrous metal
 Q.16 Name any one iron ore
 Q.17 Give one example of ceramic material
 Q.18 Name few sources of plastics
 Q.19 Define electrical diffusivity
 Q.20 Name any alloy of nickel

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Classify engineering materials in brief.
 Q.22 Explain Non metallic materials with example
 Q.23 Explain properties and uses of Nylon 66 polymer.
 Q.24 Explain types of Pig iron with their properties.
 Q.25 List various specifications of engineering materials according to BIS
 Q.26 Compare H.D.P.E and L.D.P.E in brief