

- 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:

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- 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