

- Q.29 Write different uses of Aluminum as an Engineering materials.
- Q.30 Explain in brief need or importance of alloy making.
- Q.31 Write a short note on important aluminum alloys.
- Q.32 Write any five uses of Polycarbonate.
- Q.33 Write a short note on earthenware and stoneware.
- Q.34 Write any five common properties of Glass.
- Q.35 Write about ductility and malleability of engineering materials.

SECTION-D

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

- Q.36 Explain Iron-carbon phase diagram with neat and clean diagram in detail.
- Q.37 Explain properties and uses of various copper alloys and nickel alloys in detail.
- Q.38 Define stainless steel and classify it, Explain composition, properties and uses of each type of stainless steel.

No. of Printed Pages : 4

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3rd Sem / Chem

**Subject:- Introduction of Engineering materials/
Engg. Materials**

Time : 3Hrs.

M.M. : 100

SECTION-A

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

- Q.1 Carbon content in Steel varies:
- More than 2.1%
 - More than 6.67%
 - Between 2.1 to 6.67%
 - less than or equal to 2.1%
- Q.2 Iron-carbon diagram is a graphical relation of
- Temperature and time
 - Time and Carbon concentration
 - Temperature and Carbon concentration
 - None of these
- Q.3 Which of material is best in electrical conductivity
- Iron
 - Copper
 - Rubber
 - PVC
- Q.4 Glass is a _____ solid material.
- Inorganic
 - Brittle
 - Transparent
 - All of these

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- Q.5 Which of the following is not a ceramic materials
 a) Bricks b) Cement
 c) Glass d) Rubber
- Q.6 Which of the following is a non-metal
 a) Iron b) Lead
 c) Carbon d) Brass
- Q.7 Which of the following material is used in aircraft parts
 a) Steel b) Pig iron
 c) Cast iron d) Aluminum
- Q.8 In stainless steel major alloying element are
 a) chromium b) Nickel
 c) Copper d) None of these
- Q.9 BIS stands for
 a) Bureau of Indian Standard
 b) Bureau of Information Standard
 c) Bureau of Instruments Standard
 d) None of these
- Q.10 Which of most ductile material
 a) Steel b) Copper
 c) Molted iron d) Wrought Iron

SECTION-B

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

- Q.11 Define engineering materials.

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- Q.12 Define ferrous metals
- Q.13 Name any one Ore of Iron.
- Q.14 Write one disadvantage of non-ferrous metals
- Q.15 Write any one use of zinc metal
- Q.16 Define alloys.
- Q.17 Write full forms of LDPE & HDPE
- Q.18 Write one application of Pig iron.
- Q.19 Define glass transition temperature
- Q.20 Write one use of PVC material.

SECTION-C

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

- Q.21 Explain in brief importance of materials in chemical engineering.
- Q.22 Define metals. Write any four properties of metals as Engineering materials.
- Q.23 Write short note on metalloids in brief.
- Q.24 List out and explain use of any five Engineering material in chemical industries.
- Q.25 Write important properties of wrought iron.
- Q.26 Write a short note on types of cast iron.
- Q.27 Differentiate between ferrous and non-ferrous metals
- Q.28 Explain any five properties of Copper.

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