Q.26 Write the factors affecting physical properties of steel.

Q.27 Classified the stainless steel and write their properties and uses.

Q.28 Explain any two alloys of aluminum with their properties and uses.

Q.29 Describe any one method for improving strength of metal.

Q.30 Explain LDPE and HDPE polymer.

Q.31 Write on earthen ware and stone ware clay.

Q.32 Explain potash glass with their properties and uses.

Q.33 Explain crystalline melting temperature.

Q.34 Write on thermal conductivity and specific heat of metal.

Q.35 Explain BIS according to engineering materials.

SECTION-D

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

Q.36 Explain phase diagram of Fe-C with a peritectic, Eutectic and Eutectoid portion.

Q.37 Classify cast iron and explain any two types with their properties and uses.

Q.38 Name the types of synthetic rubber and write on any two types of synthetic rubber with their properties and uses.

No. of Printed Pages : 4 180532/120532/030523
Roll No. ..... /531

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 The property of a Material by virtue of which it can be rolled into thin sheet is called .

a) Malleability b) Ductility
c) Plasticity d) Toughness

Q.2 Cast iron has the property of

a) Ductility b) Plasticity
c) Brittleness d) Malleability

Q.3 The Tensile strength of mild steel is_____ as compared to cast iron.

a) More b) Less
c) Equal d) None of the above

Q.4 The material in which atoms are arranged in a very regular and orderly fashion in a three dimensional pattern is called.

a) Crystalline Material
b) Amorphous Material

c) Mesmorphous Material ‘

d) None of the above

Q.5 The internal resistance per unit cross-sectional area offered by a body against deformation is called.

a) Load b) Stress

c) Strain d) Fatigue

Q6 Which of the following is an alloy?

a) Cast-iron b) Steel

c) Brass d) All of these above

Q.7 High speed steel should have.

a) Wear resistance b) Hardenability

c) Both a and b d) None of the above

Q8 The material obtained from blast furnace by the reduction of iron ore is

a) Wrought iron b) Cast iron

c) Pig iron d) Carbon steel

Q.9 The heat treatment process used for casting is

a) Carburizing b) Normalizing

c) Annealing d) None of the above

Q.10 Hyper- eutectic cast -iron contains carbon _____ 43%

a) Equal to b) More than

c) Less than d) None of the above

SECTION-B

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

Q.11 The polymer made by condensation of phenol with formaldehyde is.

Q.12 Full form of PET.

Q.13 Define polymer.

Q.14 Define heat insulating material.

Q.15 Define a metalloids.

Q.16 Classify the refractories material.

Q.17 Bronzes are the alloys of_____.

Q.18 The highest % of carbon that an iron carbon alloy can have.

Q.19 Name major ores of iron.

Q.20 Define alloy.

SECTION-C

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

Q.21 Write the desirable properties of heat insulating material.

Q.22 Write the properties and uses of copper.

Q.23 Classified the engineering materials and define ferrous and non-ferrous metal.

Q.24 Write the properties and uses of polycarbonates.

Q.25 Explain wrought iron with their properties and uses.