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220451

Roll No.

**5th Sem. / Ceramic
Subject : Refractory Applications**

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

- Q.1 Examples of special refractory is _____.
a) Dolomite refractory
b) Quartz refractory
c) Silicon carbide refractory
d) Mag-chrom refractory
- Q.2 Which is required in an insulating refractory?
a) Low permeability b) High specific gravity
c) Low porosity d) High Porosity
- Q.3 Thermal conductivity is related with _____.
a) High density b) High specific gravity
c) High porosity d) None
- Q.4 What is hearth in a furnace?
a) The electrodes are often called hearth
b) The bowl shaped bottom of the furnace
c) The walls of the furnace
d) The dome shaped roof of the furnace

- Q.5 Tank furnace is used to make _____.
 a) Steel b) Iron
 c) Glass d) Tile
- Q.6 Which of the following is a slow rise of plastic deformation under the action of shear stresses when it is below the yield strength of the material?
 a) Brittle fracture b) Ductile fracture
 c) Creep d) Fatigue
- Section-B**
- Note:** Objective/Completion type questions. All questions are compulsory. (6x1=6)
- Q.7 Monolithic means single layer. (True/False)
 Q.8 PLC means _____.
 Q.9 Porosity of insulating refractory brick should be low. (True/False)
 Q.10 Cermets are used in making of cutting wheels. (True/False)
 Q.11 SiC refractories are used in making of crucibles. (True/False)
 Q.12 Alumina-Silica phase diagram is one component system. (True/False)
- Section-D**
- Note:** Long answer questions. Attempt any two question out of three Questions. (2x8=16)
- Q.14 Explain preparation of cermets.
 Q.15 Discuss refractories used in Soaking pits.
 Q.16 Discuss refractories used in tunnel kiln.
 Q.17 Discuss preparation of cast Iron.
 Q.18 Explain refractories used in Reheating furnace.
 Q.19 Explain castables.
 Q.20 List the different refractories used in coke oven.
 Q.21 Explain basic oxygen furnace.
 Q.22 Explain general safety precautions to be taken during refractory erection.

- Section-C**
- Note:** Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)
- Q.13 Explain Saggers.

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