

SECTION-A

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

Q.1 Thermal conductivity is related with _____.
a) High density b) High specific gravity
b) High porosity d) None

Q.2 Acid refractories are attacked by
a) Basic, Slag b) Acid slag
c) Alumina d) None

Q.3 Refractoriness is related with
a) Permeability b) PCE
c) CCS d) Bulk Density

Q.4 The B.D. stands for
a) Bend Density b) Bulk density
c) Density d) None

Q.5 Zirconium found in Kerala as _____.
a) Beach sand b) Quartzite
c) Silica sand d) None

Q.6 Monolithic refractories means
a) Multiple layer b) Soft
c) Single layer d) None

Q.20 List the uses of carbon refractory.
Q.21 List the classification refractories.
Q.22 Explain specific gravity in refractory sample.

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Dolomite refractories are basic in nature. (True/False)
Q.8 RUL test determines the _____ of refractories.
Q.9 Silica content in silica refractory can be as high as _____ precent.
Q.10 Monolithic means multiple layer. (True/False)
Q.11 Alumina-silica phase diagram is two component system. (True/False)
Q.12 PLC means _____.

SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x8=16)

Q.23 Describe the testing method of determination of refractoriness of given sample of refractory.
Q.24 Describe the Al2O3-SiO2 phase diagram with help of neat sketch.
Q.25 Explain the manufacturing process of Carbon refractory and also list the properties and uses of it.

SECTION-C

Note: Short answer type Questions. Attempt any eight questions out of ten Questions. (8x4=32)

Q.13 Explain neutral refractories.
Q.14 Explain preparation of dolomite refractory.
Q.15 Discuss phase rule.
Q.16 Discuss water absorption.
Q.17 Discuss carbon refractories.
Q.18 Explain Patching and ramming mixes.
Q.19 Explain ceramic fibre.