

SECTION-D

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

- Q.23 Describe the testing method of determination of cold crushing strength of a given sample of refractory.
- Q.24 Describe the MgO-SiO₂, phase diagram with help of neat sketch.
- Q.25 List the factors affecting of selection of refractories raw material. Describe occurrence of raw material and manufacturing units in India.

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4th Sem / Ceramic Engineering

Subject : Refractory Technology

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) Zirconia refractory
d) Mag-chrom refractory
- Q.2 Examples of Neutral refractory is _____
a) Fire clay refractory
b) Silica refractory
c) Magnesite refractory
d) Carbon refractory
- Q.3 _____ is the volume of air or gas which will pass through a cubic centimeter of the material under a pressure of 1 cm of water in one second.
a) Permeability b) PCE
c) CCS d) Bulk Density

(60)

(4)

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(1)

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Q.4 The refractory are neither attacked by acid slag nor by basic slag is called

- a) Acid refractory b) Basic refractory
- c) Neutral refractory d) None

Q.5 PCE stands for _____

- a) Pyrometric cone equivalent
- b) Pyrometric cylinder equivalent
- c) Pyrometric card equivalent
- d) Pyrometric care equivalent

Q.6 Silicon carbide has chemical formula

- a) CaO b) SiB
- c) SiD d) SiC

SECTION-B

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

Q.7 Monolithic means single layer. (True/False)

Q.8 The main purpose of using Refractory material to retain heat in furnace. (T/F)

Q.9 Porosity of insulating refractory brick should be low. (T/F)

Q.10 Dolomite refractories are basic in nature. (T/F)

Q.11 Mullite refractories are _____ refractory.

Q.12 Silica phase diagram is one component system. (T/F)

SECTION-C

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

Q.13 Explain fire clay refractories.

Q.14 Explain preparation of chromite refractory.

Q.15 Discuss phase rule.

Q.16 Discuss mullite.

Q.17 Discuss Magnesium-Chrome refractories.

Q.18 Explain glass wool.

Q.19 Explain castables.

Q.20 List the uses of carbon refractory.

Q.21 List the classification refractories.

Q.22 Explain water absorption in refractory sample.