

Q.34 Differentiate between mortar and cement.

Q.35 Explain coke oven.

SECTION-D

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

Q.36 Describe the production, properties and uses of magnesia bricks.

Q.37 Discuss the refractories used in construction of nuclear reactor in nuclear power plant in detail.

Q.38 Describe the production, properties and uses of refractory bricks used in Blast furnace.

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5th Sem / Branch : Ceramic Engg.

Sub.: Ceramic Refractory Technology-II

Time : 3Hrs.

M.M. : 100

SECTION-A

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

Q.1 The percentage of magnesia in magnesite refractory is _____.

- a) 86% b) 25%
- c) 10% d) 35%

Q.2 zirconia is a _____ refractory.

- a) Acidic b) Basic
- c) Neutral d) None

Q.3 _____ is an example of insulating material.

- a) Granite b) Glass wool
- c) Wood d) Dental porcelain

Q.4 The process of heating is called as _____.

- a) Sintering b) Drying
- c) Mixing d) Shaping

Q.5 The formula of silicon carbide is _____.

- a) Sik b) SiC
- c) CiC d) Si₂C

- Q.6 The fusion point of Magnesite is
 a) 1000°C b) 2000°C
 c) 900°C d) 1400°C
- Q.7 The main properties of insulating refractory is _____.
 a) High porosity b) Low permeability
 c) Low porosity d) High specific gravity
- Q.8 Examples of special refractory is _____.
 a) Dolomite b) Quartz
 c) Magnesite d) Silicon nitride
- Q.9 Blast furnace is used to make _____.
 a) Aluminium b) Iron
 c) Glass d) Tile
- Q.10 _____ kiln is used in lime industries
 a) Tunnel b) Downdraft
 c) Rotary d) Updraft
- Q.15 Magnesite brick is used in rotary kiln. (true/False)
 Q.16 Zirconia is used to make nozzles. (true/false)
 Q.17 MgOcontete in Magnesite refractory can be _____ percent.
 Q.18 Castables is a Monolithic refractories. (True/False)
 Q.19 RUL stands for _____.
 Q.20 Steel is produced in open hearth furnace. (True/False)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$

- Q.21 List the uses of crucible.
 Q.22 List the properties of alumina.
 Q.23 List the uses of ceramic fibre.
 Q.24 Discuss preparation of thoria refractory.
 Q.25 Explain mortars.
 Q.26 Explain beryllia.
 Q.27 Explain titania.
 Q.28 Explain ramming and patchingmasses.
 Q.29 Explain soaking pit.
 Q.30 Write the uses of abrasives.
 Q.31 List the uses of glass wool.
 Q.32 List the uses of zirconia refractory.
 Q.33 Explain hot metal mixer.

SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

- Q.11 Formula of Magnesium carbonate is _____.
 Q.12 Silicon nitride refractories are _____ refractory.
 Q.13 PCE test determine the _____ of refractory.
 Q.14 Refractory bricks are fired in _____ Kiln.