

- Q.17 Discuss lining pattern and type of refractory used in EAF steel making.
- Q.18 Explain phase diagram .
- Q.19 Explain special refractories..
- Q.20 Discuss types of refractory in lime and dolomite kilns
- Q.21 List the advantage of monolithic refractory over shaped refractory.
- Q.22 Explain HOT MOR test.

SECTION-D

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

- Q.23 Explain the manufacturing process of Silicon - carbide refractory and also list the properties and uses of it.
- Q.24 Describe the refractories-used in different parts of GLASS TANK FURNACE with the help of neat sketch .
- Q.25 Describe the testing method of determination of permanent linear change of a given sample of refractory.

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5th Sem / Ceramic Engineering

Subject : REFRACTORY APPLICATIONS

Time : 3 Hrs.

M.M. : 60

SECTION-A

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

- Q.1 Carbon refractories are exclusively used in the
- a) Hearth of blast furnace
 - b) Side wall of soaking pits
 - c) Re generators of coke oven
 - d) Wall of coke oven
- Q.2 Refractory castables are used for
- a) Producing monolithic linings
 - b) Patch work
 - c) Both A and B
 - d) None

(20)

(4)

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(1)

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- Q.3 Insulating refractories having
- Low thermal conductivity
 - High thermal conductivity
 - Medium conductivity
 - none
- Q.4 The largest consumer of refractories is the
- Cement plant
 - Power plant
 - metallurgical plant
 - Fertiliser plant
- Q.5 Cermets are used in the
- Hearth of the blast furnace
 - Nuclear reactors, missiles & space crafts
 - Insulation of high temperature furnaces
 - Roof of electric furnaces
- Q.6 Silicon Carbide has chemical formula
- CaO
 - SiB
 - SiC
 - HCl

SECTION-B

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

- Q.7 SiC refractories are used in marking of cutting wheels.(true/false)
- Q.8 Permanent linear change test test determines the _____ of refractories.
- Q.9 BOF means _____.
- Q.10 Monolithic means multiple layer. (T/F)
- Q.11 Magnesita-silica phase diagram is two component system.(T/F)
- Q.12 PLC means _____.

SECTION-C

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

- Q.13 Discuss preparation of crucible.
- Q.14 Explain Castables.
- Q.15 Discuss Cement Rotary kiln .
- Q.16 Explain refractories used in basic and open hearth furnace.