

- Q.22 List the properties of fused alumina.
 Q.23 List the uses of saggers.
 Q.24 Discuss preparation of Ceramic fibre refractory.
 Q.25 Explain Insulating castables.
 Q.26 Explain glass wool.
 Q.27 Explain Laddles.
 Q.28 Explain composite material.
 Q.29 Explain Reheating furnace.
 Q.30 Write the uses of abrasives.
 Q.31 List the uses of cermets.
 Q.32 List the uses of fused aluminarefractory.
 Q.33 Explain Mullite.
 Q.34 Discuss Glass Tank furnace.
 Q.35 Explain nuclear power plant.

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 silicon carbide bricks.
 Q.37 Explain the manufacturing process of insulating refractory and also list the properties and uses of it.
 Q.38 Explain the manufacturing process of Zirconia, refractory and also list the properties and uses of it.

5th Sem / Ceramic
Subject:- Ceramic Refractory Technology - II

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Sintering means _____
 a) Densification b) Drying
 c) Watering d) None
 Q.2 Silicon carbide has chemical formal of-
 a) CaO b) SiC
 c) SiCr d) FeO
 Q.3 Periclase refractory contains mainly
 a) CaO b) Al₂O₃
 c) MgO d) BeO
 Q.4 Roof of a basic open hearth furnace is lined with _____ bricks.
 a) Graphite b) Fire clay
 c) Silica d) Alumina
 Q.5 Examples of special refractory is _____

- a) Dolomite refractory b) Quartz refractory
 c) Zirconia refractory d) Magnesite refractory
- Q6** Which of the following is an example of special refractory?
 a) Alumina b) Thoria
 c) Fire clay d) Silica
- Q7** Cermets are used in the
 a) hearth of the blast furnace
 b) nuclear reactors, missiles & space crafts
 c) insulation of high temperature furnaces
 d) Roof of electric furnaces
- Q8** $3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$ is
 a) Alumina b) Ball clay
 c) Mullite d) Dolomite
- Q9** The largest consumer of refractories is the-
 a) Cement plant b) Power plant
 c) Metallurgical plant d) Fertiliser plant
- Q10** Insulating refractories having
 a) Low thermal conductivity
 b) High thermal conductivity
 c) Medium conductivity
 d) none

SECTION-B

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

- Q.11 Formula of Thoria is _____
- Q.12 Mullite refractories are _____ refractory.
- Q.13 Refractoriness of a typical silica brick corresponds to Segar cone number, '34', which is equivalent to a temperature of _____ °C.
- Q.14 Softening point of zirconia bricks is about _____ °C.
- Q.15 Refractory bricks having lower porosity have good strength. (True/False)
- Q.16 SiC refractories are used in making of cutting wheels. (True/False)
- Q.17 CaO content in dolomite refractory can be _____ percent.
- Q.18 Porosity of insulating refractory brick should be high. (T/F)
- Q.19 TSR stands for _____.
- Q.20 Lead content in silica refractory can be as high as _____ percent.

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 mag-chrome refractory.