Q.22 Explain magnesia refractory with examples.

Q.23 Explain open hearth furnace

Q.24 Discuss refractories used in iron and steel plant.

Q.25 Discuss monolithic castables.

Q.26 Discuss coke oven.

Q.27 Explain thoria refractory brick.

Q.28 Discuss preparation of saggars.

Q.29 Discuss refractories used in nuclear power plant.

Q.30 Discuss kiln used in lime industries.

Q.31 Explain crucible.

Q.32 Discuss hot metal mixture.

Q.33 Explain soaking pits.

Q.34 Discuss castables.

Q.35 Explain Silicon nitride.

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 zirconia bricks.

Q.37 Describe the production, properties and uses of refractory bricks used in Blast furnace.

Q.38 Describe the production, properties and uses of glass wool.

Roll No. .....

Ceramic Engg

Subject:- Ceramic Refractory Technology - II

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 The magnesite brick is a _____ refractory.

a) Acidic b) basic

c) neutral d) none

Q.2 Refractories of zirconia refractory is up to_____.

a) 1600° C b) 600° C

c) 2600° C d) 1200° C

Q.3 Carbon has fusion point of

a) 3600° C b) 600° C

c) 1600° C d) 1200° C

Q.4 _____ is an example of insulating material.

a) granite b) dental porcelain

c) wood d) fibre wool

Q.5 RUL stands for_____

a) Refractories under load

b) Refractoriness under load

c) Refractories upload

d) None

Q.6 Which of the following is an example of special refractory?

a) Alumina b) Thoria

c) Fire clay d) Silica

Q.7 Cermet 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

Q.8 3 Al203. 2 SiO2 is

a) Alumina b) Ball clay

c) Mullite d) Dolomite

Q.9 The largest consumer of refractories is the-

a) Cement plant b) Power plant

c) Metallurgical plant d) Fertilizer plant

Q.10 The porosity in magnesite refractory is_____.

a) 86% b) 24%

c) 10% d) 35%

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Alumina refractory is used in Glass tank furnace. (T/F)

Q.12 _____ tank furnace is used to make glass. (Blast / Glass)

Q.13 _____furnace is used to make iron.

Q.14 _____refractory is used in coke oven.

Q.15 Porosity of insulating refractory brick should be high. (T/F)

Q.16 Chemical formula of ZIRCONIA is_____.

Q.17 Monolithics means single layer refractor. (True /False).

Q.18 Spalling resistance is also called as thermal shock resistance. (True/False)

Q.19 Capacity of a refractory brick to withstand-sudden changes in temperature is denoted by the property called TSR. (True/False)

Q.20 Titania refractories are_____ refractory.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 Explain the sintering process of refractories.