Q.24 Explain Permeability.

Q.25 Explain manufacturing of Fire clay refractory.

Q.26 Explain refractoriness.

Q.27 Explain porosity.

Q.28 Write importance of grog in refractory manufacturing.

Q.29 Differentiate between cold crushing strength and compressive strength.

Q.30 Write refractory manufacturing units in India.

Q.31 Explain fusion cast refractories.

Q.32 Explain factor effecting selection of raw material for refractories.

Q.33 List the places in India where refractory raw materials are found.

Q.34 Explain why slag resistance of refractory is important in metal industries.

Q.35 Classify the refractories.

SECTION-D

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

Q.36 Describe the method used for determination of RUL of a refractory sample.

Q.37 Explain manufacturing process of dolomite refractory with its properties and uses.

Q.38 Describe Al_2O_3-SiO_2 phase diagram with the help of neat sketch.

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4th Sem. / Ceramic

Subject : Ceramic Refractory Technology-I

Time : 3 Hrs. M.M. : 100

SECTION-A

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

Q.1 Chrome magnesite bricks is

a) Acidic in nature b) Neutral in nature

c) Basic in nature d) None of these

Q.2 High density refractory bricks have lower

a) Spalling resistance

b) Thermal conductivity

c) Fusion point

d) Slag penetration resistance

Q.3 High refractoriness of refractory bricks means, it has a

a) High spalling resistance

b) Low spalliing resistance

c) High resistance to fusion

d) Low porosity

Q.4 Which is a basic refractory ?

a) Fireclay b) Silica

c) Chrome magnesite d) Kyanite

Q.5 Which refractory have maximum percentage of AI_2O_3?

a) Fireclay b) Sillimanite

c) Magnesit d) Aluminous firebrick

Q.6 Spalling tendency of refractories is reduced by increasing its

a) Porosity b) Specific gravity

c) Thermal conductivity d) Strength

Q.7 Pyrometric cone equivalent (PCE) of a refractory is the measure of its

a) Spalling resistance

b) Fusion point

c) Resistance to corrosion

d) Resistance to slag penetration

Q.8 SiO_2 percentage in firebrick is about

a) 35-40 b) 55-60

c) 80-85 d) > 94

Q.9 The largest consumer of refractories is the _____ industry.

a) Cement b) Metallurgical

c) Fertilizer d) Power

Q.10 Dilatometer is used for the determination of _____ of refractories.

a) Modulus of rupture

b) Permanent linear change

c) Resistance to CO attack

d) RUL

SECTION-B

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

Q.11 Softining point of silica is _____ (1710/1110)

Q.12 MOR stands for (Modulus of rupture/Method of recovery)

Q.13 Refractories can be made by hand moulding. (True/False)

Q.14 Refractory lining is used in the rotary kiln. (True/False)

Q.15 Refractories are dried in the tunnel driers. (True/False)

Q.16 Slag resistance is one of the important properties of refractory. (True/False)

Q.17 Chromite is used to manufacture acidic refractory. (True/False)

Q.18 Insulation refractory has high porosity. (True/False)

Q.19 Cold crushing strength test is done to check the strength of refractory. (True/False)

Q.20 The main Purpose of using Refractory to retain_in furnace. (Heat/Oxygen)

SECTION-C

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

Q.21 Explain basic refractories with example.

Q.22 Explain Permanent linear change.

Q.23 List the uses of carbon refractory.