

- Q.24 Discuss preparation of chromite refractory.  
 Q.25 Explain fusion cast refractories.  
 Q.26 Explain Fire clay.  
 Q.27 Explain Quartzite.  
 Q.28 Explain Permanent linear change  
 Q.29 Explain phase diagram  
 Q.30 List the composition of chromiterefractory  
 Q.31 List the uses of carbon refractory.  
 Q.32 Differentiate between true porosity and apparent porosity.  
 Q.33 Explain Mullite.  
 Q.34 Discuss Permeability.  
 Q.35 Explain Magnesium-Chrome refractories.

#### **SECTION-D**

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

- Q.36 List the factors affecting of selection of refractories raw material. Describe occurrence of raw material and manufacturing units in India.  
 Q.37 Describe the MgO-SiO<sub>2</sub> phase diagram with help of neat sketch.  
 Q.38 Describe the testing method of determination of cold crushing strength of a given sample of refractory.

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#### **4th Sem / Ceramic Engg Subject:- Ceramic Refractory Technology - I**

Time : 3Hrs.                            M.M. : 100

#### **SECTION-A**

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

- Q.1 Examples of special refractory is \_\_\_\_\_  
 a) Dolomite refractory  
 b) Quartz refractory  
 c) Zirconia refractory  
 d) Mag-chrom refractory  
 Q.2 Examples of Neutral refractory is \_\_\_\_\_  
 a) Fire clay refractory b) Silica refractory  
 c) Magnesite refractory d) Carbon refractory  
 Q.3 \_\_\_\_\_ is the volume of air or gas which will pass through a cubic centimeter of the material under a pressure of 1 cm of water in one second.  
 a) Permeability                            b) PCE  
 c) CCS                                      d) Bulk Density  
 Q.4 The refractory are neither attacked by acid slag nor by basic slag is called

- a) Acid refractory      b) Basic refractory  
 c) Neutral refractory    d) None
- Q.5 PCE stands for \_\_\_\_\_.  
 a) Pyrometric cone equivalent  
 b) Pyrometric cylinder equivalent  
 c) Pyrometric card equivalent  
 d) Pyrometric care equivalent
- Q.6 Silicon Carbide has chemical formula  
 a) CaO                      b) SiB  
 c) SiC                      d) HCl
- Q.7 In PCE est the shape of sample cone is  
 a) Prism                      b) Tetrahedron  
 c) Square                      d) Sphere
- Q.8 The B.D stands for  
 a) Bend Density              b) Bulk density  
 c) Density                      d) none
- Q.9 Sillimanite occurs in Travancore in  
 a) Kerala                      b) Bihar  
 c) Jharkhand                 d) Haryana
- Q.10 The porosity of insulating refractory is  
 a) 80%                        b) 10-12%  
 c) 20%                        d) 2-5%

## SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Weight per unit volume of refractory is known as \_\_\_\_\_.  
 Q.12 Dolomite refractories are basic in nature. (T/F)  
 Q.13 Firing of refractories are done in tunnel kiln. (T/F)  
 Q.14 Capacity of a refractory brick to resist the rubbing action by moving charge is called as \_\_\_\_\_.  
 Q.15 \_\_\_\_\_ is a acidic refractory.  
 Q.16 RUL test determines the \_\_\_\_\_ of refractories.  
 Q.17 Silica content in silica refractory can be as high as \_\_\_\_\_ percent.  
 Q.18 Price of refractory brick should be low. (T/F)  
 Q.19 Slag resistance is one of the important properties of refractory. (T/F)  
 Q.20 Temperature inside the kiln may be measured with the help of thermometre. (T/F)

## SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Classify the fire clay refractories.  
 Q.22 Explain density.  
 Q.23 Explain basic refractories.