

**3rd Sem. / Ceramic Engineering**  
**Subject : Ceramic Raw Materials**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

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

- Q.1 Example of non plastic raw materials is  
a) Clay                      b) Bentonite  
c) Silica Sand              d) All of these
- Q.2 Blunger is used to -  
a) Raw material mixing  
b) Smelting  
c) Sieving  
d) All of these
- Q.3 Which of the following has highest plasticity ?  
a) Bentonite                b) Ball clay  
c) China Clay              d) Quartz
- Q.4 Formula of potash feldspar is -  
a)  $K_2O \cdot SiO_2$             b)  $K_2O \cdot Al_2O_3 \cdot 6SiO_2$   
c)  $K_2Co_3$                   d) All of these

- Q.5 Purpose of fritting is to convert \_\_\_\_\_.  
a) Soluble raw materials into insoluble form.  
b) Fine raw materials into bulky form  
c) Toxic raw materials in to less toxic or non toxic form.  
d) All of these
- Q.6 Which of the following is industrial waste material which is used as raw material in ceramic industry.  
a) Fly Ash                            b) Blast Furnace slag.  
c) Grog                              d) All of the above

## SECTION-B

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

- Q.7 Feldspar is a flux material. (True/False)
- Q.8 Formula of clay is  $\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$ . (True/False)
- Q.9 Ball clay is \_\_\_\_\_ plastic raw materials in comparision to China clay. (More/Less)
- Q.10 The formula of sand is \_\_\_\_\_ ( $\text{SiO}_2/\text{CaO}_2$ )
- Q.11 Quartz is one of the raw materials of silica used in body.. (True/False)
- Q.12 \_\_\_\_\_ is the industrial waste material used as raw material in Ceramic Industry. (Flyash/Quartz)

## SECTION-C

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

- Q.13 Define residual and transported clays.
- Q.14 Explain benefication of clay.
- Q.15 Write properties and uses of Steatite.
- Q.16 List properties and uses of Feldspar.
- Q.17 Explain role of flux in Ceramic Industry.
- Q.18 Write role of binder and lubricants in Ceramic Industry.
- Q.19 Write sources of Alumina.
- Q.20 Name four synthetic raw materials.
- Q.21 Write properties and uses of Kyanite.
- Q.22 Define Pumic ash.

## SECTION-D

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

- Q.23 Explain frit making process.
- Q.24 Name different types of clays. Write properties and uses..
- Q.25 Name different types of processing additives. Write types and role of each additive.