

- Q.31 Differentiate raw glaze and fritted glaze.  
 Q.32 Explain mineralogy of clay formation.  
 Q.33 Differentiate under glaze and on glaze decorations.  
 Q.34 Explain glaze application methods.  
 Q.35 Define residual and transported clays.

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**3rd Sem.**  
**Branch : Ceramic**  
**Sub: Ceramic Raw Materials**

Time : 3 Hrs.

M.M. : 100

### SECTION-D

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

- Q.36 Explain classification of clays.  
 Q.37 Define glaze. Explain glaze making process with flow diagram.  
 Q.38 Explain non plastic raw materials with properties and uses.

### SECTION-A

**Note: Multiple type Questions. All Questions are compulsory. (10x1=10)**

- Q.1 Which of the following has highest plasticity?  
 a) Alumina                      b) Feldspar  
 c) China Clay                  d) Quartz  
 Q.2 Example of Flux material is  
 a) Feldspar                      b) Volcanic ash  
 c) Both A & B                d) None of these  
 Q.3 Chemical composition of clay is  
 a)  $Al_2O_3 \cdot 3H_2O$               b)  $Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$   
 c)  $2SiO_2 \cdot 2H_2O$                 d) None of these  
 Q.4 Formula of Soda feldspar is  
 a)  $Na_2O \cdot Al_2O_3 \cdot 6SiO_2$     b)  $Na_2O \cdot SiO_2$   
 c)  $K_2O \cdot H_2O$                     d) All of these  
 Q.5 Which of the following is type of glaze?  
 a) Transparent glaze            b) Matte glaze  
 c) Opaque glaze                d) All of these

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- Q.6 Fritting is done 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.7 Example of non clay plastic raw material is  
 a) Feldspar                                    b) Clay  
 c) Bentonite                                 d) Talc
- Q.8 Bones are treated with steam to remove  
 a) Dust                                        b) Fat  
 c) Spots                                      d) Clay
- Q.9 \_\_\_\_\_ is one type of colouring oxide.  
 a) Cobalt oxide                              b) Silicon dioxide  
 c) Alumina                                  d) Bentonite
- Q.10 Which of the following method is used to glaze floor tiles?  
 a) Spraying                                  b) Pouring  
 c) Dipping                                  d) All of these
- Q.13 Frit is used to make fritted glaze. (True/False)  
 Q.14 The formula of sand is \_\_\_\_\_.  
 Q.15 Fritting is done to convert insoluble materials into soluble form. (True/False)  
 Q.16 Glaze is thin layer of glass on glaze surface. (True/False)  
 Q.17 \_\_\_\_\_ bones are used to make bone ash.  
 Q.18 In glaze is one type of enamel. (True/False)  
 Q.19 Lead glaze has \_\_\_\_\_ as major constituents.  
 Q.20 \_\_\_\_\_ furnace is used to make enamel.

### SECTION-B

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

- Q.11 Nepheline syenite is \_\_\_\_\_ raw material. (Flux/Deflocculant)
- Q.12 The formula of potash feldspar is \_\_\_\_\_.

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### SECTION-C

- Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)**
- Q.21 For what purpose plastic raw materials are used. Name plastic raw materials.
- Q.22 Draw flow diagram of frit making process.
- Q.23 Write properties and used of silica.
- Q.24 Name five clays. Write properties and uses of any one.
- Q.25 List properties and uses of kyanite.
- Q.26 Explain cover and ground coat enamellings.
- Q.27 Explain role of flux in ceramic bodies.
- Q.28 Name properties and uses of ball clay.
- Q.29 List properties and uses of bone ash.
- Q.30 Name raw materials of enamel and write its properties.

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