

- Q.27 Explain cover and ground coat enamellings.
- Q.28 Differentiate ball clay and china clay.
- Q.29 List properties and uses of sillimanite.
- Q.30 Explain glaze making process.
- Q.31 Explain non clay plastic raw materials with properties and uses.
- Q.32 Define residual and transported clay.
- Q.33 Explain porcelain glaze.
- Q.34 Explain the role of fluxes in ceramic bodies and glazes.
- Q.35 List five colouring oxides used in glaze and colour imparted/ given by them.

#### SECTION-D

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

- Q.36 Explain frit making process.
- Q.37 Name different types of clays. Write its properties and uses.
- Q.38 Explain different application methods of enamel and glazes.

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### Ceramic Engineering Subject:- Ceramic Raw Materials

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 \_\_\_\_\_ clay has highest plasticity.
- a) Bentonite                      b) Ball  
c) China                              d) Alumina
- Q.2 Example of Flux material is
- a) Soda Feldspar                  b) quartz  
c) Both a and b                  d) None of these
- Q.3 Glaze is coating on the surface of \_\_\_\_\_
- a) Metal                              b) Plastic  
c) wood                                d) Ceramics
- Q.4 Chemical composition/ formula of clay is
- a)  $Al_2O_3 \cdot 2H_2O$                   b)  $Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$   
c)  $SiO_2 \cdot H_2O$                       d) None of these
- Q.5 Example of the glaze application method is \_\_\_\_\_
- a) Dipping                          b) Brushing  
c) Spraying                        d) All of these

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- Q.6 Formula of potash feldspar is  
 a)  $K_2O \cdot Al_2O_3 \cdot 6SiO_2$     b)  $K_2O \cdot SiO_2$   
 c)  $K_2O$     d) All of these
- Q.7 \_\_\_\_\_ process is used to make frit.  
 a) Milling    b) Smelting  
 c) Quenching    d) All of these
- Q.8 The purpose of fritting is to convert \_\_\_\_\_  
 a) Soluble raw material into insoluble form.  
 b) Fine raw materials into bulky form  
 c) Toxic raw material in to less toxic or non toxic form  
 d) All of these
- Q.9 Which of the following method is used to apply glaze?  
 a) Dipping    b) Spraying  
 c) Brushing    d) All of these
- Q.10 Example of non plastic raw material is  
 a) Feldspar    b) Clay  
 c) Bentonite    d) All of these

### SECTION-B

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

- Q.11 China clay is more plastic than ball clay. (True/False)

- Q.12 Potash feldspar is used as \_\_\_\_\_. (Flux/ deflocculant)
- Q.13 Fritting is done to convert toxic material in to non toxic form. (True/False)
- Q.14 Frit is used to make glaze. (True/False)
- Q.15 Quartz is one of the raw materials of silica. (True/False)
- Q.16 Feldspar is \_\_\_\_\_ raw material. (Flux/ deflocculant)
- Q.17 Under glaze is one type of decorations. (True/False)
- Q.18 Fritting is done to convert soluble materials into insoluble form. (True/False)
- Q.19 The formula of sillimanite is \_\_\_\_\_. ( $Al_2O_3 \cdot SiO_2 / Al_2O_3 \cdot 6SiO_2$ )
- Q.20 Bone ash is prepared from cattle bones having high iron content. (True/False)

### SECTION-C

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

- Q.21 Name different types of fluxes.
- Q.22 Tell purpose of fritting.
- Q.23 Explain geology of clay.
- Q.24 Name five different enamel raw materials.
- Q.25 List raw materials of glaze.
- Q.26 Differentiate residual and transported clay.