

**Bachelor of Vocation in Pottery & Ceramic Examination, 2017**

Semester-II

Paper B.Voc-II/02

Sub: Ceramic Technology-I

Time: 3 Hours

Full Marks: 80

Questions are of value as indicated in the margin

Question no. 1 is compulsory and answer any three from the rest

1. Answer any ten 2x10=20
- Write the chemical formula of montmorillonite and talc.
  - Write the name of one substitute of feldspar.
  - Write the name of the major phases present in fired porcelain body.
  - What is flux?
  - Why fritting is done?
  - Which Oxide mainly responsible for red colour is oxidising atmosphere?
  - Define glaze.
  - Why secondary clay is more plastic than primary clay?
  - Write the theoretical composition of Kaolin.
  - Is firing ceramics a chemical change?
  - How do you make clay waterproof?
  - Fire clay is a disorder kaolinite – True/False.

1. Why drying is important for ceramic body? Explain the mechanism of drying. Mention the factors which control the drying rate. Briefly discuss different stages of drying. 2+6+4+8=20

2. Mention the main purpose of glazing a pottery ware. How glazes are classified? Discuss the main differences between soft and hard glazes. Describe the nature of bodies on which they are applied. 3+8+4+5=20

3. Define stain. Mention the basic differences between underglaze and on glaze decoration on pottery wares. Describe different types of glaze defects and suggest remedies. 2+6+(3x4)=20

4. What is frit. Write the purpose of fritting. Briefly describe fritting rules. Write the difference between raw glaze and fritted glaze. Write the name of two opacifier. 2+4+6+6+2=20

5. Explain the effect of following raw materials in glaze composition:  $5 \times 4 = 20$

- |                     |             |          |
|---------------------|-------------|----------|
| a) Silica           | b) Feldspar | c) Borax |
| d) Barium carbonate | e) ZnO      |          |

7. Write short note on any four: 4x5=20

- |                          |                      |                      |
|--------------------------|----------------------|----------------------|
| a) Slip casting          | b) Machine moulding  | c) Humid drying      |
| d) High frequency drying | e) Glaze application | f) Crystalline glaze |