

Use separate answer
script for each group

Bachelor in Design (B Des.) Sem-VI, Examination-2017
Specialization in Ceramic & Glass
Semester - VI Paper -CG-V1/03
(Materials & Product Technology-II)

Time : Three Hours

Full Marks : 40

Questions are of value as indicated in the margin.

Group – A

Question No.1 is compulsory and answer any one from the rest.

1. Answer any ten 1x10=10
 - a) Write the chemical formula of montmorillonite and talc.
 - b) Write the name of one substitute of feldspar.
 - c) Write the name of the major phases present in fired porcelain body.
 - d) What is flux?
 - e) Why fritting is done?
 - f) Which Oxide mainly responsible for red colour is oxidizing atmosphere?
 - g) Define glaze.
 - h) Why secondary clay is more plastic than primary clay?
 - i) Write the theoretical composition of Kaolin.
 - j) Is firing ceramics a chemical change?
 - k) How do you make clay waterproof?
 - l) Fire clay is a disorder kaolinite—True/False.
2. Why drying is important for ceramic body? Explain the mechanism of drying. 2+8=10
3. Explain the term “Biscuit and Gloss firing”. What are the advantages of these two processes in pottery manufacture? For porcelain and bone China firing which one are more appropriate – High bisque-low glost or low bisque – high glost? 3+4+3=10
4. Write short notes on **any two** : 5x2=10
 - a. Humid Drying
 - b. Oxidation stage
 - c. Difference between China clay and ball clay
 - d. Bone ash

Group – B

Answer any two questions

1. Why glass is called super-cool liquid? Write a brief note on properties of glass. Describe the types of glass according to the chemical formation. 3+4+3
2. Write briefly on Fusing and Slumping. What is glass compatibility test and why is it important for glass fusing? 6+2+2
3. Write the proper firing and cooling cycle of Kiln Form glass. What is Annealing and Devitrification of glass? 4+3+3
4. Write short note on **any four** of the following :
(a) Soda-Lime Glass (b) Lead Crystal Glass (c) Float Glass (d) Figured Glass (e) Borosilicate Glass (f) Glass Compatibility