

Bachelor of Design (B.Des.) Examination, 2019

Semester - VI

Specialization in Ceramic & Glass

Paper – CG-VI/03

(Material & 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 five**: 2x5=10
 - (a) Write the chemical formula of china clay and pyrophyllite.
 - (b) Why fritting is done?
 - (c) Define flux.
 - (d) Write the formula of plaster of paris.
 - (e) Define glaze.
 - (f) Write the name of one substitute of feldspar.
 - (g) Which material is normally responsible for blue colour?
2. Write the significance of drying. Describe different stages of drying. 4+6=10
3. Describe importance of following oxides for the production of ceramic stain:
a. CoO b. CuO c. Cr₂O₃ d. Fe₂O₃ 2½x4=10
4. Describe role of following oxides in ceramic glaze:
a. SnO₂ b. BaO c. Na₂O d. SiO₂ 2½x4=10
5. Write notes on any **two** : 2x5=10
a. Fritting rules b. Opacifiers c. Malt glaze d. Feldspar

Group-B

Answer **any two** questions

1. What is Glass? Classify glass on the basis chemical formation? Describe the physical properties of glass. (2+6+2)
 2. Write a short note on Kiln Form glass. Write the proper firing and cooling cycle of Kiln Form glass. What is glass capability test and why is it important for glass fusing? (3+3+4)
 3. Write the approximate ratio of raw materials for a batch of Soda Lime glass. Briefly describe the role of each raw material. (3+7)
 4. Write about colour the glass. Describe details about the glass colouring oxide and their colour outcome. (4+6)
 5. Write short note on **any four** of the following: (2.5×4)
 - a) Float Glass
 - b) Figured Glass
 - c) Glass Fusing
 - d) Glass Slumping
 - e) Annealing
 - f) Borosilicate glass
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