

M. Des. Examination, 2016
Specialized in Ceramic & Glass
Semester-I
Paper - MCG-I/03
(Method & Material-I)

Time: 3 hr

Full Marks: 80

Question no. **6** is compulsory and answer **any four** from the rest

1. Mention the main purpose of glazing a pottery ware. How glazes are classified? Draw a flow sheet for the manufacture of ceramic glaze frit. 4+4+8=16
 2. Discuss the main differences between soft and hard glazes. Describe the nature of bodies on which they are applied. Write notes on ceramic stains. 8+5+3=16
 3. Mention the basic differences between underglaze and on glaze decoration on pottery wares. Describe different types of glaze defects and suggest remedies. 8+8=16
 4. Discuss the advantages and disadvantages of using lead as a glaze material. What are the main purposes of fritting a glaze composition? What are the main factors of preparing a stable glaze slip? 8+4+4=16
 5. Write notes on **any two** questions : 8+8=16
(a) Semiconducting glaze (b) Opacifiers (c) Malt glaze
 6. The empirical formula of a raw lead glaze is given below 16
0.60 PbO
0.30 ZnO 0.22 Al₂O₃ 2.10 SiO₂ 0.10 CaO
Calculate the batch composition taking the usual raw materials.
[At. wt.: Pb-207, Zn - 65.4, Ca-40, Si -28, Al- 27, O-16]
 7. (a) What is semiconducting glaze and when it is applied ? How does it differ from traditional porcelain glaze? (6+4)+6 = 16
(b) What is engobe and how is it applied?
 8. Write short notes on (**any two**) 8+8=16
(a) Chrome –tin pink (b) Vanadium –Zirconia blue (c) Presodymium yellow
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