2021
B.A./B.Sc. Semester III General Examination
University of Calcutta
CHEMISTRY
Paper GE/CC3
(PRACTICAL)
F.M. 30

FAKIR CHAND COLLEGE CENTRE (551)

[Use A4 pages and black ink only for writing answers. Write Roll number and Registration number at the top and page number at the bottom of each page. Images of answer script and admit card must be in a single pdf file.]

The figures in the margin indicate full marks.

Answer any FIVE:

1. You are supplied sodium phosphate as an inorganic salt during a qualitative inorganic analysis experiment.
   (a) Write down the name and formula of the acid and basic radicals of the supplied salt sample. ½ x 4
   (b) Write the tests by which you can confirm both the acid and basic radicals. 1½+1
   (c) Write the reaction of phosphate detection test. 1½

2. What is DMG? Which basic radical can be detected by using it? Write down the test. Give the reaction involved and draw the structure of the complex formed. 1+1+2+(1+1)

3. Write the formula of boric acid and sodium borate. Give the formula of the acid radical in sodium borate. Describe the tests by which boric acid and borate can be separately identified (writing reaction not necessary). (1+1)+1+3

4. You are supplied potassium iodide as an inorganic salt during a qualitative inorganic analysis experiment.
   (a) Write down the name and formula of the acid and basic radicals of the supplied salt sample. ½ x 4
   (b) Write the tests by which you can confirm both the acid and basic radicals. 1½+1
   (c) Write the reaction of iodide detection test. 1½

5. During Oxidising Fusion Test of an inorganic salt if you find a green melt, which is dissolved in boiling water, then what inference can you draw from this observation? Describe the test. Give the reaction involved. 1+2+3

6. Write down the formula of sodium bismuthate. Which basic radical is detected by using this compound during analysis of an inorganic salt? Describe the test. Write the reaction involved. 1+1+2+2