

U.G. 4th Semester Examination - 2020

CHEMISTRY

[HONOURS]

Course Code : CHEM(H)CC-P-10

(Organic-IV)

[PRACTICAL]

Full Marks : 20

Time : 2 Hours

The figures in the right-hand margin indicate marks.

1. Answer any **four** questions: 5×4=20
- a) Why glycine can not be estimated by direct titration with alkali? 2
- b) Discuss the principle of estimation of glycine with proper equation. 3
2. a) Write down the name of one reducing and one non-reducing sugar. 1
- b) Discuss the principle of estimation of glucose with proper equation. 2
- c) What is invert sugar? 2
3. a) Write down the structure of vitamin-C. 1

- b) 'Reaction between ascorbic acid and 2,6-dichlorophenol-indophenol blue is a redox process' - Comment on this statement with proper explanation. 3
- c) What is the indicator used in the estimation of vitamin C? 1
4. a) In the estimation of aniline the indicator starch should be added near the end point of titration. Give reason. 2
- b) What is the brominating agent generally used in volumetric analysis? Can you use $\text{Br}_2 / \text{H}_2\text{O}$ for the above said purpose? Give answer with reason. 2+1
5. a) Define saponification value of oil or fat. 2
- b) What is the difference between oil and fat? 2
- c) What is Fehling's B solution? 1
6. a) Discuss the principle of estimation of urea by hypobromite method. 3
- b) How hypobromite can be prepared *in situ*? 2

[Turn Over]