Your Roll No. ....

B.Sc. (Hons.) CHEMISTRY / I Sem. B

Paper CHCP-101— Practical Chemistry Lab

Time : 1 hour   *Maximum Marks :* 20

*(Write your Roll No. on the top immediately
on receipt of this question paper.)*

Attempt all questions.

*Use of scientific calculator is allowed but
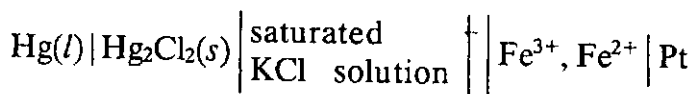can't be exchanged among themselves.*

$(R = 8\cdot314\ JK^{-1}\ mol^{-1};\ N = 6\cdot022\times10^{23}$
$mol^{-1};\ k = 1\cdot38\times10^{-23}\ JK^{-1})$

1. What is the wash liquid in the gravimetric estimation of copper as CuSCN?   1

2. What is the spraying agent used to detect the presence of Cu^{2+} and Pb^{2+} by paper chromatography?   1

3. What is the role of alcohol in the preparation of tetra ammine Cu(II) sulphate?   1

4. In the preparation of $MnPO_4$, how is Mn^{2+} oxidised to Mn^{3+}?   1

P. T. O.

5. Name the indicator used in iodometric titrations.

   Why is the indicator not added in the beginning of the titration?   1,1

6. Why do we add H_2SO_4 in the preparation of the nitration mixture while nitrating phenol?   1

7. What is iodine value of an oil?   1

8. How is glucose estimated? Write the equations.   1,1

9. How does the determination of mixed melting point help in the characterization of an organic compound? 1

10. How is hippuric acid prepared in the lab? Give the relevant reactions.   1,1

11. Write the rate equation for the reaction between propanone and iodine in acidic solutions.   1

12. What is viscosity number (reduced viscosity)? Give its unit. $1_{1/2}$

13. How does the conductance of a solution of HCl change on the addition of NaOH from a burette? Give reasons. $1_{1/2}$

14. What is the effect of addition of a detergent on the surface tension of water?   1

15. Write the Nernst equation for the emf of the cell:

$$Hg(l) \,|\, Hg_2Cl_2(s) \left| \begin{array}{c} \text{saturated} \\ \text{KCl solution} \end{array} \right| \left| Fe^{3+}, Fe^{2+} \right| Pt$$

Write the half cell reactions.   2