

## PRACTICALS

Sl. No.	Question	Obj/ Spec./ Diff. Level
1.	Glucose + Benedict's reagent $\xrightarrow{\text{boil}}$ = What is the observation? What is the inference?	U Infer Average
	Red precipitates – 1 mark, Glucose is a reducing sugar – 1 mark.	
2.	Give a test to show that egg contains proteins.	K Recall Difficult
	1 cm <sup>3</sup> egg. Albumin solution gives violet colour + 2 drops very dilute CuSO <sub>4</sub> + NaOH (2 marks)	
3.	A sugar gives deep red colour when warmed with Seliwanoff's reagent. What type of sugar it is?	U Identify Average
	Ketose sugar	
4.	A sugar is boiled with Benedict's reagent. A red ppt. is obtained. What is the inference drawn?	U Infer
	Sugar is a reducing sugar.	
5.	Glucose solution + $\xrightarrow{A}$ + conc. H <sub>2</sub> SO <sub>4</sub> gives violet ring. Identify A and name the list.	U Identify Average
	A is alcoholic solution of L – naphthol Molisch's test.	
6.	Give a test to show that glucose is a reducing sugar.	K Recall Average
	Glucose + Benedict's reagent, boil – 1 mark Red precipitate – 1 mark	
7.	a) Name the reagents to prepare m-dinitro benzene from nitrobenzene. b) Give the equation for the reaction. c) How is the product purified?	U Explain Average

- a) Nitrobenzene + Conc.  $\text{HNO}_3$  + conc.  $\text{H}_2\text{SO}_4$   
 b) Correct equation  
 c) Recrystallisation
8. a) Acetanilide +  $\text{Br}_2$  +  $\xrightarrow{\text{glacial acetic acid}}$  X + Y. What are X and Y?  
 b) Write the equation for the above reaction.  
 c) How is the product purified?
- a) X = p-bromoacetanilide, Y = HBr  
 b) Correct equation  
 c) Recrystallization
9. Describe Acrolein test for oil.
- Oil + reagent (sodium bisulphate) warm- 1 mark; bad smell – 1 mark
10. A sample of milk answers Molisch's test and biurette test. Draw inference from these.
- Milk contains carbohydrate as it answers Molisch's test – 1 mark  
 It also contains proteins as it answers biurette test – 1 mark
11. For the estimation of ferrous ammonium sulphate using standard potassium dichromate solution:
- i) Write chemical equation for the reaction.  
 ii) Mention the equivalent mass of FAs.  
 iii) Name the indicators used.  
 iv) The colour change at the end point.
- i) 2M, ii) 1M, iii) 1M, iv) 1 M
12. Describe an experiment to determine the mass of ferrous ammonium sulphate solution present in  $250 \text{ cm}^3$ , using standard potassium dichromate solution. Write equation for the reaction.
- Equation – 2 marks  
 Procedure – 1 mark  
 Normality equation – 1 mark  
 Mass /  $250 \text{ cm}^3$  –  $\frac{1}{2}$  mark  
 Eq. Mass =  $\frac{1}{2}$  mark.

U  
 Explain  
 Average

K  
 Recall  
 Average

K  
 Recall  
 Average

S  
 Calculate  
 Average

S  
 Conducting  
 experiment  
 Average

13. In the estimation of potassium permanganate solution using standard oxalic acid solution
- write the chemical equation for the reaction involved.
  - Mention the equivalent mass of potassium permanganate.
  - Name the indicator used.
  - The colour change at the end point.
- i) 2M, ii) 1M, iii) 1M, iv) 1M
14. How will you estimate the amount of potassium permanganate dissolved in 1 dm<sup>3</sup> of the solution using standard oxalic acid solution? Write equation for the reaction.
- Equation – 2 marks, procedure – 1 mark, normality equation – 1 mark, mass in dm<sup>3</sup> – ½ mark, eq. Mass – ½ mark.
15. For the estimation of potassium permanganate solution using standard ferrous ammonium sulphate solution.
- Write chemical equation for the reaction involved.
  - Mention the equivalent mass of potassium permanganate.
  - Name the indicator used.
  - The colour change at the end point.
- i) 2 marks, ii) 1 mark, iii) 1 mark, iv) 1 mark
16. Describe an experiment to determine the mass of potassium permanganate dissolved in the given solution, using standard ferrous ammonium sulphate solution. Write equation for the reaction.
- Equation – 2 marks  
 Procedure – 1 mark  
 Normality equation – 1 mark  
 Mass in dm<sup>3</sup> – ½ mark  
 Eq. Mass = ½
17. In an experiment to show that acid hydrolysis of methyl acetate is a first order reaction.
- Write the equation for the reaction.
  - Name the titrant and analyte involved.
  - Mention the indicator used and colour change.
  - Tabulate the experimental data.
  - Describe the determination of V<sub>∞</sub>.
- a) 1 mark, b) 1 mark, c) 1 mark, d) 2 marks

S  
Calculate  
Average

S  
Estimate  
Average

S  
Estimate/  
calculate  
Average

S  
Draw  
Average

S  
Draw and  
judge  
Average

18. Describe the experiment to show that acid hydrolysis of methyl acetate follows kinetics of first order.
- S  
Draw and  
judge  
Average
- Equation – 1 mark  
Procedure – 3 marks  
Tabular column – 1 mark  
Conclusion – 1 mark
19. In an experiment to show the effect of concentration on the rate of reaction between potassium persulphate and potassium iodide.
- S  
Draw and  
judge  
Average
- a) Name the standard solution taken in the burette and which one of the product estimated at regular intervals of time.  
b) Mention the indicator used and colour change at the end point.  
c) Draw the graph for two different concentrations.  
d) What conclusion do you draw from the experiment?
- a) 2 marks, b) 1 mark, c) 1 mark, d) 1 mark
20. In an experiment to study the effect of temperature on the rate of reaction between potassium persulphate and potassium iodide.
- S  
Draw and  
judge  
Average
- a) Write the equation for the reaction involved.  
b) Name the titrant and analyte involved.  
c) Mention the indicator used and colour change at the end point.  
d) Draw the graph for two different temperatures.  
e) What conclusion do you draw from the experiment?
- a) 1 mark, b) 1 mark, c) 1 mark, d) 1 mark, e) 1 mark
21. Describe an experiment to show the effect of temperature on the rate of reaction between potassium persulphate and potassium iodide.
- S  
Draw and  
judge  
Average
- Equation – 1 mark, Procedure – 2 marks, Tabulation –  $\frac{1}{2} + \frac{1}{2}$  ;  
Graph –  $\frac{1}{2}$  mark, conclusion –  $\frac{1}{2}$  mark
22. Describe an experiment to show the effects of concentration on the rate of reaction between potassium persulphate and potassium iodide.
- S  
Draw and  
judge  
Average
- Equation – 1 mark, Procedure – 2 marks,  
Tabular columns – 1 mark, graph –  $\frac{1}{2}$  mark, conclusion –  $\frac{1}{2}$  mark.

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