



Total No. of Questions: 4/18

Total No. of Pages: 2

**First Year B.Sc. (Regular)**

**COURSE CODE: CHE11201**

**COURSE NAME: Fundamental of Biochemistry  
(Semester I)**

**Program: B.Sc. Code: CHE11201**

**Credits: 2**

**Program Specific: General B.Sc.**

**Time: 2 Hours**

**Course Type: F.Y. B. Sc**

**Max. Marks: 30**

**Course Name: Fundamental of Biochemistry**

**Paper:**

**SET: A**

**Instructions to the candidate:**

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw a well labelled diagram wherever necessary.

**SECTION: A**

**Q1) Answer the following**

**[5 X 1= 5]**

1. What is Iodine number?
2. Draw the structure of Sucrose.
3. Explain how D-glucose reacts with dil.  $\text{HNO}_3$ .
4. What are Lipids?
5. Give the structure triglyceride.

**SECTION: B**

**Q2) Answer the following (Attempt any 5/7)**

**[5 X 2 =10]**

1. Classify lipids on the basis of fatty acids.
2. What are Anomers. Draw structure of anomers.
3. Explain the reaction of glucose with Tollens reagents and write reaction.
4. Draw the structure of Amylose and Cellulose.
5. Write short note on phospholipids.
6. Give two biological significances of Lipids.
7. Explain the Concept of Saponification Number.

**SECTION: C**

**Q3) Write short notes on following (Attempt any 2/4)**

**[2 X 5 = 10]**

1. Saponification of Lipids.
2. Polyunsaturated fatty acid (PUFA)
3. Mutarotaion
4. Glycosidic bond.

**SECTION: D**

**Q4) Answer the following (Attempt any 1/2)**

**[5 X 1 = 5]**

1. What are carbohydrates? Discuss the classification of carbohydrates with suitable examples?
2. Explain the biosynthesis mechanism of lipids.

\*\*\*\*\*