

[illegible]

# CBSE 12th Chemistry

## Chapter- 14 (Biomolecules)

### Unsolved Important Questions

---

#### SECTION A

*(Each question in this section carry 1 mark)*

- Q.1. What are three types of RNA molecules which perform different functions?**
- Q.2. Which of the two components of starch is water soluble?**
- Q.3. What are the products of hydrolysis of sucrose?**
- Q.4. What are three types of RNA molecules which perform different functions?**
- Q.5. Write two main functions of carbohydrates in plants.**
- Q.6. Write two main functions of carbohydrates in plants.**
- Q. 7. What are the products of hydrolysis of sucrose?**

#### SECTION B

*(Each question in this section carry 2 marks)*

- Q.8. Define the following term in relation to proteins:**
- (i) Peptide bond**
  - (ii) Denaturation of proteins.**
- Q.9. Explain glucose. What is the role of glucose (cane sugar) from Sucrose?**

**Q.10. Explain what is meant by**

- (i) A peptide linkage**
- (ii) a glycosidic linkage**

**Q.11. Name two water soluble vitamins, their sources and the diseases caused due to their deficiency in diet.**

**Q.12. Explain the following terms.**

- (i) Invert sugar**
- (ii) Polypeptides**

**Q.13. Name the products of hydrolysis of sucrose. Why is sucrose not a reducing sugar?**

**Q.14. What is essentially the difference between  $\alpha$  –form of glucose and  $\beta$  –form of glucose? Explain.**

**Q.15. Describe what you understand by primary structure and secondary structure of proteins.**

**Q.16. What is meant by**

- (i) Peptide linkage**
- (ii) biocatalyst?**

**Q.17. Write any two reactions of glucose which cannot be explained by the open chain structure of glucose molecule.**

**Q.18. Name the four bases present in DNA. Which one of these is not present in RNA?**

**Q.19. Name two fat soluble vitamins, their sources and the diseases caused due to their deficiency in diet.**

**Q.20. Write the main structural difference between DNA and RNA. Of the four bases, name those which are common to both DNA and RNA.**



## SECTION C

*(Each question in this section carry 3 marks)*

**Q.21.** After watching a programed on TV about the adverse effects of junk food and soft drinks on the health of school children, Sonali, a student of Class XII, discussed the issue with the school principal. Principal immediately instructed the canteen contractor to replace the fast food with the fiber and vitamins rich food like sprouts, salad, fruits etc. This decision was welcomed by the parents and the students. After reading the above passage, answer the following questions:

- (a) What value are expressed by Sonali and the Principal of the school?
- (b) Give two examples of water-soluble vitamins.

**Q.22.** (i) Deficiency of which vitamin causes night-blindness?  
 (ii) Name the base that if found in nucleonic of RNA only.  
 (iii) Glucose on reaction with HI given n-hexane. What goes it suggest about the structure of glucose?

**Q. 23.** (i) Which one of the following is a disaccharide: Starch, Maltose, Fructose, Glucose?  
 (ii) What is the difference between fibrous protein and globular protein?  
 (iii) Write the name of vitamin whose deficiency causes bone deformities in children.

**Q.24.** After watching a programme on TV about the presence of carcinogens (cancer causing agents) Potassium bromate and Potassium iodate in bread and other bakery products, Ritu a class XII student decided to aware others about the adverse effects of these carcinogens in foods. She consultanted the school principal and requested him to instruct canteen contractor to stop selling sandwiches, pizza, burgers and other bakery products to the students. Principal took an immediate action and instructed the canteen contractor to replace the bakery products with some proteins and vitamins rich food like fruits, salads, sprouts etc. The decision was welcomed by the parents and students.

After reading the above passage, answer the following questions:

- (i) What are the values (at least two) displayed by Ritu?
- (ii) Which polysaccharide component of carbohydrates is commonly present in bread?
- (iii) Write the two types of secondary structure of proteins.
- (iv) Give two examples of water soluble vitamins.

Q.25. What happen when D-glucose is treated with the following reagents:

- (i) HI
- (ii) Bromine water
- (iii)  $HNO_3$

Q.26. Amino acids may be acidic, alkaline or neutral, how does this happen? What are essential and nonessential amino acids? Name one of each type.

Q.27. What is essentially the difference between  $\alpha$ -glucose and  $\beta$ -glucose? What is meant by pyranose structure of glucose?

Q.28. Shanti, a domestic helper of Mrs. Anuradha, fainted while mopping the floor. Mrs. Anuradha immediately took her to the nearby hospital where she was diagnosed to be severely 'anemic'. The doctor prescribed an iron rich diet and multivitamins supplement to her. Mrs. Anuradha supported her financially to get the medicines. After a month, Shanti was diagnosed to be normal. After reading the above passage, answer the following question.

- (i) What values are displayed by Mrs. Anuradha?
- (ii) Name the vitamin whose deficiency causes 'pernicious anemia'.
- (iii) Give an example of a water soluble vitamin.

Q.29. Define the following terms as related to proteins:

- (i) Peptide Linkage
- (ii) Primary structure
- (iii) Denaturation

Q.30. (i) Which one of the following is a Polysaccharide: starch, maltose, fructose, glucose  
(ii) Write one difference between  $\alpha$ -helix and  $\beta$ -pleated sheet structures of protein.  
(iii) Write the name of the disease caused by the deficiency of vitamin  $B_{12}$ .

Q.31. (i) Write the structural difference between starch and cellulose.  
(ii) What type of linkage is present in Nucleic acids.  
(iii) Give one example each for fibrous protein and globular protein.



**Buy Chemistry Important Questions Solution Chapter Wise**  
**(All Chapters) @ ₹ 110**

**Visit:**

<https://www.4ono.com/cbse-12th-chemistry-important-questions-201617/#chemistry>

**OR**

Click Below to Buy the Solutions Chapter wise (All Chapters)

[Buy Chemistry Important Questions Solution Chapter Wise](#)

