

## Model Paper: - Bio Chemistry

Class 11<sup>th</sup>

M. Marks:-70

### **Section A ( long Answers each question carries 05 marks )**

Q1. Give the detailed structure of Nucleus and write down its various functions.

Or

What are plastids? Explain in detail how chloroplasts act as mini Kitchens in plant cells.

Q2. Give an account of the digestion and absorption of lipids

OR

Describe the role of intestines in the digestion of food stuffs

Q3. a) What is a zwitterion what is its significance in biological system

b) What are charged and uncharged amino acids? Give examples in each case.

Or

Describe the classification of proteins with suitable examples

Q4. a) What are the different forms of Vitamin A

b) Describe Wald's visual cycle

OR

a) What is biologically active form of Vitamin D?

b) Write down various physiological and biochemical functions of Vitamin D

### **Section B ( Short Answer type questions each question carries 03 marks )**

Q5. Water is dipolar in nature, explain?

Q6. Write down various functions of Golgi apparatus.

Q7. List the difference between starch and glycogen.

Q8. Write down the structure and functions of lecithin.

Q9. What are different types of RNA, write down the role of mRNA

Q10. Draw the structure of Riboflavin ( vit. B2) and write down its biochemical role.

Q11. Explain the following terms:

- a) Calorific value of food
- b) Respiratory Quotient

Q12. Describe Beer- Lamberts law in detail?

**Section C ( Very Short Answer type question each question carries 02 marks )**

Q13. What is DONNAN MEMBRANE Equilibrium?

Q14. What are the different types of transport system?

Q15. Draw the cyclic structure of:

- a) Galactose
- b) Fructose.

Q16. What are glycolipids?

Q17. List the various sources of Vitamin C

Q18. Write down the names of purine and pyrimidine bases?

Q19. What do you mean by goiter?

Q20. What is Ph meter?

**Section D ( Objective type each carries 01 marks)**

Q21. The internal pressure of cell is maintained by :

- i) Nucleus
- ii) Ribosome
- iii) Mitochondria
- iv) Vacuoles

Q22. Glucose is an aldohexose (True/ False)

Q23. The F1 particles are present on \_\_\_\_\_ membrane of mitochondria.

Q24. Cardiolipin is a phospholipid (True/ False)

Q25. Pentose sugar present in DNA is \_\_\_\_\_

Q26. Name one Vitamin synthesized in intestinal flora ?

Q27. Vitamin involved in coagulation of blood is :

- a) Vitamin A
- b) Vitamin D
- c) Vitamin E
- d) Vitamin K

Q28. What are dipeptidases?

Q29. Which of the following is a sulphur containing amine?

- a) Glycine
- b) Lysine
- c) Proline
- d) cysteine

Q30 The nutrient required for the regulation of acid base equilibrium is \_\_\_\_\_