



MS – 310

IV Semester B.Sc. Examination, May 2016
(Fresh) (CBCS) (2015-16 & Onwards)
BIOCHEMISTRY – IV

Time : 3 Hours

Max. Marks : 70

- Instructions :** i) This paper is for the students of the new syllabus **2014-15**.
ii) The question paper has **two** Parts. Part – **A** and Part – **B**.
iii) Answer **any eight** questions from Part – **A** and **nine** questions from Part – **B**.

PART – A

Answer the following questions. **Each** question carries **two** marks.

1. Which is the most abundant tissue of the body ? What is it made up of ?
2. Give two functions of Lymph.
3. Explain briefly the mechanism of expiration.
4. Mention the functions of pancreatic juice.
5. What is peritoneal dialysis ?
6. Name the hormones of the pancreas. Give the functions of any one.
7. Write the structural differences between Artery and Vein.
8. What are neurotransmitters ? Give one example of an amino acid neurotransmitter.
9. Draw the structure of a Cardiac muscle cell and label the parts.
10. Define SDA. What is its significance ?
11. What are the beneficial effects of Fiber ?
12. What is the effect of hyper vitaminosis ? What is the deficiency symptom of Vitamin A ?

PART – B

Answer the following. **Each** question carries **six** marks.

13. a) Discuss the structure of collagen.
b) Explain the steps involved in the process of blood coagulation.

(4+2)

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14. a) Explain the process of Erythropoiesis.
b) What are the functions of cerebrospinal fluid ? (4+2)
15. a) Draw a labelled diagram of the Respiratory system.
b) What is balanced diet ? What is its importance ? (4+2)
16. a) How is carbondioxide transported from tissues to lungs ?
b) What is co-transport ? Give an example. (4+2)
17. a) Discuss the digestion and absorption of lipids.
b) What are zymogens ? What is their importance ? (4+2)
18. a) Describe the process of tubular reabsorption and secretion.
b) What is GFR ? What is its importance ? (4+2)
19. a) Name any four hormones of Anterior pituitary. Write the functions of any two.
b) Explain the mechanism of action of steroid hormones. (4+2)
20. a) Draw a normal ECG pattern. Label and explain the significance of its deflection waves.
b) What are neurotransmitter receptors ? How are they classified ? (4+2)
21. a) Discuss the mechanism of synaptic transmission.
b) What is myelin sheath ? What is its function ? (4+2)
22. a) Explain the sliding filament model of muscle contraction.
b) Give two differences between skeletal and cardiac muscle. (4+2)
23. a) Define RQ of foods. Give an account of RQ of different foods.
b) What are the proteins of the thin filament ? (4+2)
24. a) Write a note on Nitrogen balance.
b) What is Recommended Dietary Intake ? How is RDI for Vitamin 'A' expressed ? (4+2)
25. a) Give the sources and function of
i) Vitamin 'C' ii) Vitamin 'A'
b) What is mutual supplementation of proteins ? Give an example. (4+2)