



SE – 163

IV Semester B.Sc. Examination, September 2020
(CBCS) (F+R) (2015-16 and Onwards)
BIOCHEMISTRY – IV

Time : 3 Hours

Max. Marks : 70

- Instructions :** i) The question paper has **two** Parts : Part – **A** and Part – **B**.
ii) Answer **any eight** questions from Part – **A**.
iii) Answer **any nine** questions from Part – **B**.

PART – A

Answer **any eight** of the following questions. **Each** question carries **two** marks.

(8×2=16)

1. What is bone remodelling ?
2. Give the functions of cerebrospinal fluid.
3. What is Bohr's effect ?
4. Mention the functions of Bile juice.
5. How is CO₂ transported from tissues to lungs ?
6. Name two hormones secreted by Hypothalamus.
7. Give two structural differences between artery and vein.
8. Name one Excitatory and one Inhibitory Neurotransmitters.
9. Give two differences between skeletal and cardiac muscle.
10. Define Respiratory quotient. Give its significance.
11. What causes marasmus ? Mention two of its symptoms.
12. Name the deficiency disorder of :
 - a) Vitamin C
 - b) Vitamin A.



P.T.O.



21. a) Write a note on EEG.
b) Define RDA. How is it expressed ? (4+2)
22. a) How is Action potential caused and propogated ?
b) What is meant by muscular dystrophy ? Name one. (4+2)
23. a) Explain the mechanism of sliding of filaments in muscle contraction.
b) Give a method for proximate analysis of carbohydrate. (4+2)
24. a) How is BMR measured by Direct method ?
b) What are complete and incomplete proteins ? (4+2)
25. a) Write a note on nitrogen balance. (4+2)
b) Give one source of :
i) Iron
ii) Calcium. (4+2)



1. Name the two essential amino acids for protein synthesis.
2. Give the structure of the amino acid, glycine.
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5. Name the two essential amino acids for protein synthesis.
6. Give the structure of the amino acid, glycine.
7. Give the structure of the amino acid, glycine.
8. Name the two essential amino acids for protein synthesis.
9. Give the structure of the amino acid, glycine.
10. Define Respiratory quotient. Give its significance.
11. What causes hypothyroidism ? Mention two of its symptoms.
12. Name the deficiency disorders of :
a) Vitamin C
b) Vitamin A





PART - B

Answer **any nine** of the following questions. **Each** question carries **six** marks.

(9x6=54)

13. a) Discuss the structure of Elastin. (4+2)
- b) Name the major cation and anion of intracellular fluid. (4+2)
14. a) Explain the intrinsic pathway in blood coagulation. (4+2)
- b) Give two nontransport functions of blood. (4+2)
15. a) Explain the mechanism of inspiration. (4+2)
- b) Name the parts of the respiratory system. (4+2)
16. a) Discuss the digestion and absorption of proteins. (4+2)
- b) Give two functions of saliva. (4+2)
17. a) Explain the process of urine formation. (4+2)
- b) Give the composition of pancreatic juice. (4+2)
18. a) Draw a labelled diagram of a Nephron. (4+2)
- b) Give one function of :
- i) PGE_2
- ii) TXA_4 .
19. a) Explain the mechanism of action of peptide hormone. (4+2)
- b) Name two contractile muscle proteins. (4+2)
20. a) Explain the two phases of blood pressure. (4+2)
- b) What is hemorrhage ? How is it caused ? (4+2)

