

IV Semester B.Sc. Degree Examination, Sept./Oct. 2022
(CBCS) (F+R)
BIOCHEMISTRY (Paper – IV)

Max. Marks : 70

Time : 3 Hours

Instructions : 1) The question paper has **two** Parts : Part – **A** and Part – **B**.

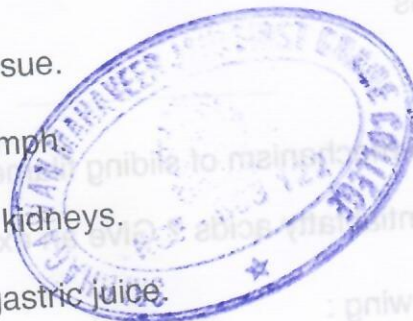
2) Answer **any eight** questions from Part – **A**.

3) 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. Write a note on connective tissue.
2. Listout the components of Lymph.
3. Mention the buffer system of kidneys.
4. Mention the composition of gastric juice.
5. Draw a neat labelled diagram of Nephron.
6. What is ECG ?
7. Define Bohr's effect.
8. Mention the hypoglycemic hormone.
9. Give two functions of proteins.
10. What are non-essential amino acids ?
11. Define active transport.
12. What are micronutrients ? Give an example.





PART – B

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

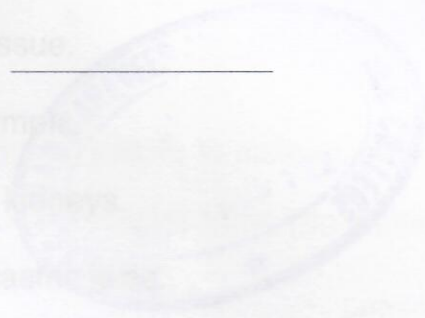
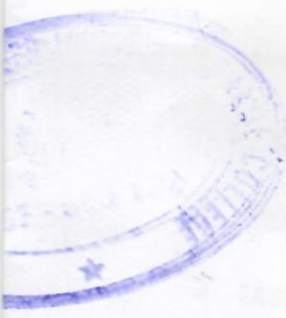
(9×6=54)

13. a) Explain growth and remodelling of bone.
b) Write a note on epithelial tissue. (4+2)
14. a) Explain extrinsic and intrinsic pathway of blood coagulation.
b) List out the functions of vitamin A. (4+2)
15. a) Discuss in detail about digestion and absorption of carbohydrates.
b) Give one source of : (4+2)
i) phosphorus
ii) calcium.
16. a) Enumerate the mechanism of sliding filament theory.
b) What are essential fatty acids ? Give an example. (4+2)
17. a) Define the following :
i) resting potential
ii) action potential.
b) What are excitatory neurotransmitters ? Give an example. (4+2)
18. a) Explain anatomy and physiology of heart.
b) What is meant by haemorrhage ? (4+2)
19. a) What are local hormones ? Mention the biological role of TXA_2 and PGE_2 .
b) How are nucleotides are digested ? (4+2)
20. a) Describe the determination of calorific value of food by Bomb calorimeter.
b) Give two functions of myelin sheath. (4+2)



21. a) Define BMR. Explain the salient features of BMR.
b) What is nephritis ? (4+2)
22. a) Write a note on Kwashiorkor and Marasmus.
b) Mention sources and functions of vitamin K. (4+2)
23. a) Define RQ. Calculate the RQ values of carbohydrates and fats.
b) Mention the significance of RQ. (4+2)
24. a) Describe the stages involved in urine formation.
b) What are muscular dystrophies ? (4+2)
25. a) What is RDA ? Explain the salient features of RDA.
b) Define hypervitaminosis. (4+2)

(8x2=16)



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