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No. of Printed Pages : 3



**GS-314**

IV Semester B.Sc. Examination, May/June - 2019

**BIOCHEMISTRY**

**Biochemistry - IV**

**(CBCS) (F+R) (2015-16 & Onwards)**

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.

**8x2=16**

1. What are zymogens ? Give an example.
2. Mention the role of osteoblast and osteoclast cells.
3. Give any two functions of plasma proteins.
4. What is Bohr's effect ?
5. Mention any two hormones involved in regulation of heart rate.
6. Give any two functions of parathyroid hormone.
7. What is insulin clearance test ?
8. Give the classification of neurons with an example for each.
9. What is respiratory quotient ? Calculate the RQ of carbohydrates.
10. What are macro minerals ? Give any two examples.
11. What are dietary fibers ?
12. Give the role of Creative phosphate in muscle.

**P.T.O.**



## PART - B

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

9x6=54

- ~~13.~~ (a) Discuss the structure and functions of collagen. 4+2  
(b) Give any two functions of hormones of adrenal cortex.
- ~~14.~~ (a) Outline the extrinsic pathway of blood coagulation. 4+2  
(b) Draw a neat labelled diagram of human respiratory system.
- ~~15.~~ (a) Give the composition and functions of gastric juice. 4+2  
(b) What is myelin sheath? Mention its significance.
- ~~16.~~ (a) Discuss the role of Kidneys in maintenance of acid base balance. 4+2  
(b) Give the composition of lymph.
- ~~17.~~ (a) Describe the sliding filament theory of muscle. 4+2  
(b) What are muscular dystrophies? Give an example.
- ~~18.~~ (a) Describe the various steps involved in tubular reabsorption and secretion. 4+2  
(b) What is erythropoiesis?
- ~~19.~~ (a) Describe the mechanism of transmission of action potential. 4+2  
(b) What is renal failure?
- ~~20.~~ (a) Define RDA. Mention its significance. 4+2  
(b) Mention any two factors that affect BMR.
21. (a) Discuss the digestion and absorption of lipids. 4+2  
(b) What are haemorrhages?
22. (a) Mention the source, daily requirement, functions and deficiency symptoms of potassium. 4+2  
(b) Give the sources and function of Vitamin B<sub>12</sub>.



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- ~~23.~~ (a) Give the role of any four anterior pituitary hormones. **4+2**  
(b) What is fortification of foods ? Mention the advantages.
- ~~24.~~ (a) What is nitrogen balance ? Give its significance. **4+2**  
(b) What is cardiac output ?
25. (a) Give the principle and procedure for energy measurement by indirect calorimetry. **4+2**  
(b) How are neurotransmitter receptors classified ?

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