

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Allied Health Sciences Degree Examination - 03-Jun-2024

Time: Three Hours

Max. Marks: 100 Marks

BIOCHEMISTRY

(**RS-3** – B.Sc Cardiac Care Technology, Perfusion Technology, Renal Dialysis Technology, Respiratory Care Technology, Neuro Sciences Technology, Anesthesia Technology, Operation Theatre Technology, Emergency and Trauma Care Technology)

(**RS-4** – B.Sc Medical Laboratory Technology, Medical Imaging Technology and Radiotherapy Technology) Anesthesia and Operation Theatre Technology

Q.P. CODE: 3263

(QP contains two pages)

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary.

LONG ESSAYS (Second Question Choice)

2 x 10 = 20 Marks

1. Write the reactions of aerobic glycolysis. Add a note on energetics.
2. Explain chemistry, dietary source, daily requirement, functions and deficiency disorders of Vitamin A.

OR

Explain location, subcellular site, reactions and energetics of beta oxidation of Palmitic acid.

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. Define Basal metabolic rate. Explain the factors affecting Basal Metabolic Rate.
4. Significance of HMP Shunt pathway.
5. Creatinine clearance test.
6. Structure of tRNA.
7. Explain Watson Crick model of DNA.
8. Mention normal level of serum calcium. Explain the hormones involved in its regulation.
9. Outline the reactions of urea cycle.
10. Transamination reaction and its importance

OR

Classify carbohydrates with example.

11. Phospholipids and their functions.
12. List the functions of proteins with example.

SHORT ANSWER (Question No 15 & 20 choice)

10 x 3 = 30 Marks

13. Define dietary fibres. Mention any two functions.
14. Name the different ketone bodies.
15. Define buffers. Give two examples.

OR

Pellagra.

16. What are essential fatty acids? Give examples.
17. What are peptides? Name any two peptides of biological importance with function.

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18. Name any three enzymes involved in digestion of disaccharides.
19. Write any three applications of radioactive isotopes.
20. Write Henderson Hasselbalch equation. Mention its applications.
OR
How to prepare 1M NaOH solution?
21. What is a standard solution? How to prepare standard solution of glucose?
22. Write normal values (reference range) of:
 - a) Serum Urea
 - b) Fasting plasma glucose
 - c) Serum Sodium
