

Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Allied Health Sciences Degree Examination - 25-Nov-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. Describe the reactions of glycolysis indicating the enzymes. Add a note on net yield of ATP under aerobic and anaerobic glycolysis.
2. Sources, RDA, functions and disorders of deficiency of Iron.

OR

Give a detailed account of chemistry, source, RDA, functions and deficiency disorders of Vitamin D.

SHORT ESSAYS (Question No 5 & 10 choice)

10 x 5 = 50 Marks

3. What are solutions? Classify them with suitable examples.
4. Name the protein energy malnutrition disorders. Write the important differences between them.
5. Define normality. Explain the preparation of a) 0.1 N NaOH b) 0.1 N HCL from 1N HCl.

OR

Digestion and absorption of lipids.

6. Sources, RDA, functions and deficiency manifestations of Vitamin A.
7. What is the pH of blood? Name the blood buffers and explain.
8. BMR.
9. Draw a neat labelled diagram of Watson and Crick model of DNA.
10. Define and classify enzymes with examples.

OR

Define and classify carbohydrate with two examples for each class.

11. Clearance tests to assess glomerular functions.
12. Significance of HMP shunt pathway.

SHORT ANSWER (Question No 15 & 20 choice)

10 x 3 = 30 Marks

13. Beri Beri.
14. Signs and symptoms of Diabetes Mellitus.
15. Ketone bodies and their significance.

OR

What are polysaccharides? Mention their functions.

16. Normal serum levels of serum electrolytes.
17. Name three essential fatty acids.

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18. Classify amino acids based on nutritional requirement with example.
19. Hyperglycemic hormones.
20. Dietary fibres.
OR
Scurvy.
21. Define normal, molar and percent solution.
22. Define isotopes. Give two examples of with their functions.
