Rajiv Gandhi University of Health Sciences, Karnataka

I Year B.Sc. Allied Health Sciences Degree Examination - 25-Nov-2024

Time: Three Hours Max. Marks: 80 Marks

BIOCHEMISTRY

(RS3 – Medical Laboratory Technology, Medical Imaging Technology and Radiotherapy Technology RS2 – Operation Theatre Technology, Cardiac Care Technology, Perfusion Technology, Renal Dialysis Technology, Respiratory Care Technology, Anaesthesia Technology and Neurosciences Technology)

Q.P. CODE: 3153 (QP contains two pages)

Your answers should be specific to the questions asked.

Draw neat, labeled diagrams wherever necessary

SHORT ESSAYS (Answer any Eight)

 $8 \times 5 = 40 \text{ Marks}$

- 1. Water distillation apparatus
- 2. Henderson Hasselbalch equation
- 3. Different types of pipettes and their uses
- 4. Explain different types of flasks used in the laboratory.
- 5. Principle, parts and uses of Colorimeter
- 6. Define dilutions. Explain serial dilutions.
- 7. Add a note on incubators with diagram.
- 8. Explain two-pan laboratory balance with an example.
- 9. pH meter principle, components and diagram
- 10. Explain water bath with the help of a diagram.

SHORT ANSWERS (Answer any Ten)

 $10 \times 3 = 30 \text{ Marks}$

- 11. Significance of borosilicate glass
- 12. Definition and classification of SI units
- 13. Define (a) Valency (b) Molecular weight (c) Normality
- 14. Define (a) Test tube (b) Centrifuge tube (c) Wire gauze
- 15. Properties of bases
- 16. Functions of Aminoacids
- 17. Reflux condenser components and use
- 18. Types of racks and their uses
- 19. Functions of carbohydrates
- 20. Explain Beer-Lambert's law. Add a note on its limitations.
- 21. Define indicators with examples.
- 22. Deep freezers

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TO THE POINT ANSWERS (Answer any Five)

 $5 \times 2 = 10 \text{ Marks}$

- 23. Name Purine and Pyrimidine bases.
- 24. Name two strong acids.
- 25. Use of Funnels
- 26. Name two important blood buffers.
- 27. Water deionisers
- 28. What is percent solution?
- 29. Use of hot air oven
