

Rajiv Gandhi University of Health Sciences

M.B.B.S. PHASE - I Degree Examination - February 2007

Time : 3 Hrs.

[Max. Marks : 100]

BIOCHEMISTRY (Revised Scheme)

QP Code: 1055

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 X 9 = 18 Marks

1. What are the sources of ammonia in the body? Describe how ammonia is detoxified in the body and name two inborn errors associated with this process.
2. What is the biomedical importance of muscle and liver glycogen? Describe the process of glycogen synthesis. Name two glycogen storage diseases.

SHORT ESSAY

10 X 5 = 50 Marks

3. Fate of pyruvate
4. Antioxidant vitamins
5. 2,3 -biphosphoglycerate pathway in erythrocytes
6. Oxidative phase of Hexose monophosphate shunt
7. Fatty acid synthase complex
8. Ketone bodies
9. Glucose transporters
10. Chemiosmotic theory of oxidative phosphorylation.
11. Factors affecting rate of enzymatic reaction
12. Structure of T-RNA

SHORT ANSWERS

16 X 2 = 32 Marks

13. What is active transport ? Give one example.
14. How does a buffer maintain the pH? Give an example of a blood buffer.
15. What is the clinical importance of glycosides?
16. Name four biologically important peptides.
17. Name four substances synthesized from cholesterol?
18. Name two phospholipids and mention their function.
19. What is the normal level of bilirubin in serum? What is conjugated bilirubin?
20. Give an example of allosteric enzyme and name modulators for the enzyme.
21. What is the coenzymic form of Niacin and give one reaction where it is utilized?
22. Name the inhibitors of cytochrome oxidase.
23. Give an example of proteolytic enzyme and its specificity.
24. Name the enzyme defective in galactosemia and hereditary fructose intolerance.
25. Name the amino acids which form Succinyl co A.
26. Name the cholesterol rich lipoproteins.
27. Name the posttranscriptional modification of m-RNA.
28. List the hormones in plasma calcium regulation.
