Rajiv Gandhi University of Health Sciences

I Year B.N.Y.S Degree Examination – MAY 2016

Time: Three Hours **Max. Marks: 80 Marks**

BIOCHEMISTRY

QP Code: 2529

(QP contains two pages)

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

Section - A

Multiple Choice Questions **10 X 1 = 10 Marks**

1. Which of the following is the major storage and transport form of lipide?
   a) Cholesterol
   b) Albumin
   c) Triacylglycerol
   d) Phospholipid
2. The amino acid required for synthesis of Heme is
   a) Glutamine
   b) Glycine
   c) Glutamic acid
   d) Lysine
3. A codon AUG is a
   a) Chain initiating codon
   b) Chain terminating codon
   c) Releasing factor for peptide chains
   d) Recognition site on the tRNA
4. All of the following are detoxifying agents except
   a) Glycine
   b) Glutathione
   c) Glucuronic acid
   d) Glycogen
5. An Obese person has the health risk of
   a) Atherosclerosis
   b) Hypertension
   c) Coronary heart disease and stroke
   d) All of the above
6. Antihemorrhagic vitamin
   a) Vitamin A
   d) Vitamin E
   c) Vitamin K
   d) Vitamin C
7. Free fatty acids are transported in plasma as a
   a) Component of VLDL
   b) Part of LDL
   c) Component of chylomicrons remnants
   d) Ligand bound to albumin
8. During denaturation of protein the following bonds are disrupted, except:
   a) Hydrogen
   b) Hydrophobic
   c) Peptide
   d) Sulfide
9. Inulin is
   a) Fructosans
   b) Glycans
   c) Mannans
   d) Xylans

10. Liver diagnostic enzyme is
    a) Alkaline phosphatase
    b) Acid phosphatase
    c) Alanine transaminase
    d) Amy lase

Section B

LONG ESSAYS (Answer any two) **2 X 10 = 20 Marks**

11. Discuss the biochemical functions, dietary requirements, sources and absorption of calcium.
12. Explain the process of transcription in detail. Add a note on post transcriptional modifications.
13. What is the fasting blood glucose level? Discuss about blood glucose homeostasis.

SHORT ESSAYS (Answer any ten) **10 X 5 = 50 Marks**

14. Classify proteins based on their functions with examples.
15. Discuss the regulatory enzyme (HMG coAreductase) of cholesterol biosynthesis? Write about the reaction catalysed and the regulation.
16. Write a short essay on vitamin K.
17. Blood urea and its clinical significance.
18. Basal metabolic rate.
19. Describe GTT and glycosuria.
20. Phenylketonuria.
21. Urea cycle
22. Give an account of digestion and absorption of lipids
23. Give an account on diagnostic enzymology.
24. Structure of DNA
25. Catabolism of purine nucleotides.

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