2017

BIOCHEMISTRY – HONOURS

Fifth Paper

(Module – X)

Full Marks – 50

The figures in the margin indicate full marks

Candidates are required to give their answers in their own words as far as practicable

Answer ***Question No.1*** and ***any one*** question from each **unit**

1. Answer ***any ten*** questions : 2×10

(a) Name one disease associated with defect in heme synthesis mentioning the defect that causes the disease.

(b) What is albinism?

(c) What are the causes of ketosis?

(d) What is hypokalemia? What are the symptoms of hypokalemia?

(e) Cite an example of γ – carboxylation.

(f) Why arsenic is toxic to human?

(g) Differentiate between serum and plasma.

(h) What is the clinical significance of acid phosphatase enzyme?

(i) Name two sulfer containing vitamins and draw one of its structure.

(j) Write down the cause of gout. How can it be treated?

(k) Write down the active form of folic acid. Give one example of its use.

(l) State two clinical features of the diseases rickets and osteo malacia.

Unit – I

2. (a) Define the following terms : 3

(i) Random blood sugar (ii) Fasting blood sugar (iii) Post-prandial blood sugar.

(b) Briefly explain cardiac markers mentioning their functions and significance. 5

(c) The renin-angiotensin system is intricately involved in the regulation of arterial blood pressure. 4

(d) Dicoumerol is used clinically to prevent thrombosis in patients prone to clot formation. 3

3. (a) Thalassaemia occurs due to abnormal globin chain synthesis – explain. 5

(b) (i) Why are SGOT and SGPT clinically important?
(ii) What is normal range of bilirubin and creatinine? 3+2

(c) (i) Mention two glycogen storage diseases with cause.
(ii) What is Zollinger-Ellison syndrome? 3+2

Unit – II

4. (a) What is BMR? Write on the important factors that affect BMR. 5

(b) Describe one antivitamin and describe its clinical effect. 3

(c) Explain why lack of iodine in the diet causes goiter. 3

(d) Briefly describe why tocopherol is considered to delay aging. 4

5. (a) Discuss about the function of 1,25-dihydroxy-cholecalciferol. 5

(b) Explain the role of Vitamin A in vision. 5

(c) Why are organophosphorous pesticides toxic? Explain with underlying mechanism. 5