



MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :.....

Name :.....

Third Semester Career Related B.Sc. Degree Examination, November 2016

First Degree Programme under CBCSS

Complementary Course: Biochemistry – III (for Botany and Biotechnology)

AUBB331: Physiological aspects in Biochemistry

(for 2014 Admissions – Improvement Only)

Time: 3 Hours

Max. Marks: 80

SECTION – A

Answer ALL questions in one or two sentences.

1. Name the plasma proteins.
2. How many molecules of oxygen can bind with haemoglobin ?
3. Name the universal donor and universal acceptor in ABO blood grouping.
4. What are the deficiency manifestations of vitamin D ?
5. What is BMR ? List out the conditions in which BMR is increased ?
6. Mention the sources of calcium ?
7. Define detoxification process ?
8. Name the hormone is deficient in diabetes mellitus ? What is its function ?
9. Write a note on important liver function tests ?
10. Function of TSH.

(10 × 1 = 10 Marks)

SECTION – B

Answer any EIGHT questions, not exceeding a paragraph.

11. Write briefly on the functions of adrenaline.
12. Write a short note on oral glucose tolerance test.
13. Distinguish between respiratory acidosis and alkalosis.

1691

14. In hypercholesterolemia, suggest the dietary advice to be given to a patient.
15. Bring out the source, function and deficiency disease associated with thiamine.
16. How the bile pigments are formed in our body ?
17. Outline the biological importance of iodine.
18. What are trace elements ?
19. Explain Bohr effect ?
20. What is scurvy ? How it can be rectified ?
21. What is glycosylated hemoglobin ? Write its significance.
22. What are the risk factors of atherosclerosis ?

(8 × 2 = 16 Marks)

SECTION – C

Short essay type : Answer any SIX questions.

23. Enumerate the biological effects of insulin.
24. Briefly explain the causes and consequences of obesity.
25. Outline the causes and compensatory mechanisms in metabolic acidosis.
26. What are the functions of liver ?
27. Briefly explain the formation of urine.
28. Discuss the physiological functions of vitamin A.
29. Give an account of anticoagulants used for therapeutic purposes.
30. How the blood groups are classified ?
31. What are the constituents of urine ?

(6 × 4 = 24 Marks)

SECTION – D

Long essay type : Answer any TWO questions.

32. Describe the different water soluble vitamins and their functions.
33. Discuss the different renal function tests.
34. Describe the hormones of the adrenal cortex.
35. What is diabetes mellitus ? Discuss the classification of diabetes mellitus.

(2 × 15 = 30 Marks)

]*****]