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Third Semester B.Sc. Degree Examination, January 2023
Career Related First Degree Programme under CBCSS
Group 2(a) Botany and Biotechnology
Complementary Course
BB1331-PHYSIOLOGY AND NUTRITION
(2020 Admission onwards)

Time: 3 Hours Max. Marks: 80

## SECTION - A

Answer all questions in one word or in two sentences. Each question carries 1 mark.

- Write any two condition in which bleeding time is prolonged?
- 2. Give short note on hemostasis.
- 3. Mention the sources of vitamin E.
- 4. Deficiency of folic acid causes.
- 5. What are the major aims of PFA Act?
- 6. What is acid number?
- 7. What is the normal value of blood urea?
- Define alkalosis.

- Write the reaction catalysed by carbonic anhydrase.
- 10. What are the hormones secreted from adrenal cortex?

 $(10 \times 1 = 10 \text{ Marks})$ 

## SECTION - B

Answer any eight questions not exceeding one paragraph. Each question carries 2 marks.

- 11. What are the different functions of plasma?
- 12. Mention the different types of WBC.
- 13. Write short note on Sickel cell anemia.
- 14. List out the functions of vitamin B7.
- 15. Define Xerophthalmia...
- 16. Give short note on hypokalemia.
- 17. What is Consumer Protection Act in India?
- 18. How to Prevent Food Adulteration?
- 19. What are the normal constituents of urine?
- 20. Define renal threshold.
- 21. Write briefly about liver function tests.
- 22. Give a brief note on metabolic acidosis.
- 23. Mention the importance of bicarbonate buffer.
- 24. What is Saponifications number?
- 25. Write any two functions vasopressin.
- 26. Draw the structure of T3.

 $(8 \times 2 = 16 \text{ Marks})$ 

## SECTION - C

Answer any six questions. Short essay. Each question carries 4 marks.

- 27. Explain the functions of hemoglogin.
- 28. Illustrate the types and functions of plasma proteins.
- 29. Give a brief account on the biological functions of vitamin D.
- 30. Explain the sources and biological functions of vitamin B12.
- 31. What are the differences between FSSAI and AGMARK?
- 32. Write down the harmful effects of Food Adulteration in health and disease.
- 33. Give short note on urine formation.
- 34. Write any one renal function test.
- 35. Explain chloride shift.
- 36. Elucidate the oxygen dissociation curve.
- 37. Write short note on functions of adrenalin
- 38. Give a brief note on growth hormone deficiency

 $(6 \times 4 = 24 \text{ Marks})$ 

## SECTION - D

Answer any two questions. Long Essay type. Each question carries 15 marks.

- 39. Elaborate the hepatic marker enzymes and its significance.
- 40. Describe the source, functions and significance of Calcium and Sodium.

- 41. What are the types of Food Adulteration? Explain the methods of Food Adulteration.
- 42. Explain the mechanism of detoxification in liver with suitable example.
- 43. How is the blood pH regulated by the kidneys? Explain the mechanism.
- 44. Write in detail about thyroid hormones and their functions.

 $(2 \times 15 = 30 \text{ Marks})$