



Reg. No. : .....

Name : .....

**Third Semester B.Sc. Degree Examination, March 2022**  
**Career Related First Degree Programme under CBCSS**

**Group 2(a) – Botany and Biotechnology**

**Complementary Course I**

**BB 1331 – PHYSIOLOGY AND NUTRITION**

**(2020 Admission)**

Time : 3 Hours

Max. Marks : 80

**SECTION – A**

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

1. What is the other name of Hemophilia B?
2. How many heme and O<sub>2</sub> atoms are present in one molecule of oxy haemoglobin?
3. Write the chemical name of the following
  - (a) Vitamin b2
  - (b) Vitamin b12
4. Deficiency of Vitamin A causes \_\_\_\_\_.
5. What is AGMARK?
6. What is iodine number?
7. What is the normal value of blood creatinine in adults?



8. Write the reaction catalysed by Glucose Oxidase.
9. What are the other names of adrenalin and nor-adrenalin?
10. Expand ACTH and TSH.

(10 × 1 = 10 Marks)

### SECTION – B

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

11. What is Plasma? Mention its constituents.
12. Define anticoagulants. Give examples.
13. What are lymphocytes?
14. Write the deficiency manifestation of thiamine.
15. List out the functions of vitamin C.
16. What is hyponatremia?
17. Define saponification number.
18. What is Food Adulteration?
19. What is urea clearance?
20. Define GFR.
21. Write note on detoxification.
22. What are blood buffers?
23. Give a brief account on metabolic alkalosis.
24. Give short notes on Addison's disease.
25. Write the name of any two peptide hormones.
26. Name the steroid hormones secreted from adrenal gland.

(8 × 2 = 16 Marks)



## SECTION – C

Answer **any six** questions, short essay. **Each** question carries **4** marks.

27. Explain the structure of hemoglobin.
28. List out the major functions of blood.
29. Describe the factors influencing BMR.
30. Explain the sources and biological functions of vitamin C.
31. What are the differences between FSSAI and AGMARK?
32. Explain the methods Food Adulteration.
33. Explain the structure of nephron.
34. Give a brief note on creatinine clearance test.
35. What are the factors that affect gaseous exchange in lungs?
36. Explain Bohr effect.
37. Write the regulation of thyroid hormone secretion.
38. Write short note on functions of nor-adrenalin.

**(6 × 4 = 24 Marks)**

## SECTION – D

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

39. Describe in detail about blood clotting mechanism.
40. Elaborate the sources, function and significance of vitamin A.
41. List out the harmful effects of Food Adulteration on Human Health.
42. Describe in detail about the liver function test.
43. Elaborate the mechanism of renal regulation of acid-base balance.
44. Describe the classification of hormones.

**(2 × 15 = 30 Marks)**