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**P – 4075**

Reg. No. : .....

Name : .....

**Third Semester B.Sc. Degree Examination, January 2023**

**Career Related First Degree Programme Under CBCSS**

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

**Vocational Course V**

**BB 1372 : ANIMAL PHYSIOLOGY AND ANATOMY**

**(2013 – 2018 Admission)**

Time : 3 Hours

Max. Marks : 80

- I. Answer **all** the questions.
1. Name the copper containing oxygen carrying pigments.
2. What is the end product of glycolysis?
3. Name the formed element of blood that helps in blood clotting.
4. Define corprophagy.
5. What are the constrictions seen at intervals on a medullated nerve fibre?
6. Name the capillary network present in the Bowmans capsule.
7. Name the pituitary hormone helps in the proliferation and maturation of ovarian follicle.
8. Name the hormone secreted by thyroid gland.

P.T.O.

9. What is the junction between two neurons?

10. What are flame cells?

(10 × 1 = 10 Marks)

II. Answer any **eight** questions from the following (One paragraph)

11. What is neuro-muscular junction? Mention its significance.

12. What are alveoli? Mention its role in respiration.

13. What are formed elements? Mention its role in blood.

14. What is blastula?

15. What is Ammonotelism? Give an example.

16. What are the abnormalities associated with hypo-thyroidism?

17. What are anti-coagulants? Give two examples.

18. What is cardiac cycle?

19. Draw the structure of the transverse section of human kidney.

20. What is all-or-none law?

21. What is the role of acetylcholine?

22. Mention any four principal minerals supplemented through food.

(8 × 2 = 16 Marks)

III. Answer any **six** questions from the following (not to exceed **120** words)

23. What is Oxygen-Haemoglobin dissociation curve? Mention any two factors that influence the curve and plot a graph showing the influence of  $p\text{CO}_2$ .

24. What is sarcomere? Explain the structure with the help of a diagram.

25. Describe the carbohydrate digesting enzymes present in the alimentary canal of human.
26. Describe the structure of human heart.
27. What is counter current mechanism? Explain its role in urine concentration.
28. Describe osmo-regulatory mechanisms seen among the terrestrial animals.
29. What is Juxta glomerular apparatus? Mention its role.
30. Differentiate red and white muscles.
31. Describe the ovarian cycle and hormones associated.

**(6 × 4 = 24 Marks)**

IV. Answer any **two** from the following. (Long essay)

32. Explain the transport of carbon dioxide from tissues to lungs.
33. With the help of a neat labelled diagram, describe the structure of a typical nephron.
34. What are vitamins? Classify the vitamins and describe the deficiency diseases due to avitaminosis.
35. Explain the mechanism of transmission of nerve impulse through the membrane and synapse.

**(2 × 15 = 30 Marks)**