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**Reg. No. : .....**

**Name : .....**

**Fifth Semester B.Sc. Degree Examination, December 2021**

**First Degree Programme Under CBCSS**

**Zoology**

**Core Course VIII**

**ZO 1543 –– PHYSIOLOGY AND BIOLOGICAL CHEMISTRY**

**(2018 Admission)**

Time : 3 Hours Max. Marks : 80

I. Answer the following questions (In **one** or **two** sentences. **1** mark each)

1. What is a balanced diet?

2. What is goitre?

3. What is marasmus?

4. Define pulse.

5. What is neuroglia?

6. Define acidosis

7. What is refractory period?

8. What is Addison's disease?

**P.T.O.**

9. Define summation

10. What is cataract?

**(10 × 1 = 10 Marks)**

II. Answer any **eight** of the following (not to exceed **one** paragraph. Each question carries **2** marks)

11. Write short notes on PEM.

12. What is oxygen dissociation curve?

13. What is ECG?

14. Write notes on plasma proteins.

15. Write notes on anticoagulants.

16. What is carbon monoxide poisoning?

17. Write briefly about the role of kidney in osmoregulation.

18. What is sliding filament theory?

19. What is Cori cycle?

20. What is reflex action?

21. Write short notes on essential amino acids.

22. What is chemi-osmotic theory?

23. What is glycogenesis?

24. Write short notes on Michaelis -Menten equation.

25. What are isoenzymes?

26. Write notes on Parkinson's disease.

**(8 × 2 = 16 Marks)**

III. Answer any **six** of the following (Not to exceed **120** words. Each question carries **4** marks)

27. Explain ornithine cycle.

28. Briefly explain different types of nutrition.

29. Write notes on formed elements of blood.

30. Describe the regulation of kidney function.

31. Describe the mechanism of carbon dioxide transport.

32. Write notes on counter current multiplier system.

33. Explain the structure of haemoglobin.

34. Briefly explain the ultrastructure of a striated muscle.

35. Write notes on neurotransmitters.

36. Discuss the mechanism of enzyme inhibition.

37. Explain HMP shunt.

38. Write notes on the biological functions of lipids.

**(6 × 4 = 24 Marks)**

IV. Answer any **two** of the following (Each question carries 15 marks)

39. Elaborate the structure of neuron and mechanism of impulse propagation.

40. Provide a detailed account of the mechanism of blood clotting.

41. Explain the structure of ear and mechanism of hearing.

42. Explain beta oxidation of fatty acids.

43. Explain different levels of protein structure.

44. Write a detailed account on mechanism of enzyme action and factors affecting enzyme activity.

**($2 \times 15 = 30$ Marks)**

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