

FINAL YEAR B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2005**Part III—Group V—Zoology****Paper IV—BIOCHEMISTRY AND ANIMAL PHYSIOLOGY**

Time : Three Hours

Maximum : 55 Marks

I. Answer any *ten* of the following :—

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| 1 What is Sphingolipids ? | 2 What is gluconeogenesis ? |
| 3 Define Peptide bond. | 4 Mention any <i>two</i> fibrous protein. |
| 5 What is co-factors ? | 6 Define pH. |
| 7 What is endoproteases ? | 8 Define autophagy. |
| 9 Write any <i>two</i> respiratory pigments. | 10 What is ECG ? |
| 11 What is fatigue ? | 12 Define Poikilotherms. |
| 13 What is placenta ? | 14 What is synapse ? |
| 15 What is pineal body ? | |

(10 × 1 = 10 marks)

II. Answer any *five* of the following :—

- 16 Explain the various types of carbohydrates.
- 17 Explain the primary structure of proteins.
- 18 Write a brief note on glycerolipids.
- 19 Discuss the process of digestion of fats.
- 20 Describe the role of respiratory pigments during gas transport.
- 21 Briefly discuss the mechanism of blood coagulation.
- 22 Explain the various theories of muscle contraction.
- 23 Provide an account on osmoregulation in marine organisms.

(5 × 5 = 25 marks)

III. Answer any *two* of the following :—

- 24 Describe the metabolism of carbohydrate.
- 25 Explain the mechanism of urine formation.
- 26 Provide an account on physiology of hearing.

(2 × 10 = 20 marks)