

**BIOCHEMISTRY AND ANIMAL PHYSIOLOGY-I**

**Semester-IV**

**Time Allowed : Three Hours**

**Maximum Marks : 50**

**Note :** Attempt two questions each from Section A and B carrying 7.5 marks each, and the entire Section C consisting of 10 short answer type questions carrying 2 marks each.

**SECTION-A**

- |      |     |   |    |
|------|-----|---|----|
| I.   | (a) | How do the monosaccharides, oligosaccharides and polysaccharides differ ? | 4  |
|      | (b) | Write a note on Waxes with suitable examples.                             | 3½ |
| II.  | (a) | What are Energy carriers ? How are they formed ? Give some examples.      | 4  |
|      | (b) | Give the functions of DNA.  | 3½ |
| III. |     | Give an account of Embden Meyerhoff Pathway.                              | 7½ |
| IV.  |     | Write notes on the following :  |    |
|      | (a) | Ornithine cycle.  | 4  |
|      | (b) | Lipogenesis in Tissues.   | 3½ |

**SECTION-B**

- |       |     |  |    |
|-------|-----|--|----|
| V.    | (a) | Discuss the functions of Blood.                                | 2½ |
|       | (b) | Explain the mechanism of Blood clotting.                       | 5  |
| VI.   | (a) | Give the functions of Liver.                                   | 4  |
|       | (b) | Write a note on Coprophagy.                                    | 3½ |
| VII.  | (a) | Write down the structure and physiology of Thyroid gland.      | 5  |
|       | (b) | How do Hormones and Enzymes differ ?                           | 2½ |
| VIII. | (a) | Describe the structure and general features of Cardiac muscle. | 5  |
|       | (b) | Discuss the advantages of Exercise.                            | 2½ |

**SECTION-C**

- IX. All questions are compulsory.
- |     |   |
|-----|---|
| (a) | Write down the differences between Saturated and Unsaturated Fatty acids. |
| (b) | Mention the factors which influence Blood pressure.                       |
| (c) | Write a short note on Pheromones.   |
| (d) | How do Urca and Urine differ ? Where are they formed?                     |
| (e) | List the functions of Saliva.   |
| (f) | Tabulate the differences between Respiration and Combustion.              |
| (g) | What is the utility of Trace elements to our body ?                       |
| (h) | Write a note on Waxes.  |
| (i) | What is the role of Platelets in Blood clotting.                          |
| (j) | How do Vitamins differ from Hormones ?                                    |

(10×2=20)