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(February)

ZOOLOGY

(Elective/Honours)

(**Animal Physiology, Endocrinology and
Biochemistry**)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** and *any four* from the rest

1. Write in brief on any *three* of the following :

4×3=12

- (a) Myogenic hearts
- (b) Properties of enzymes
- (c) Reflex action
- (d) Endocrine pancreas
- (e) Nucleotides

2. Describe the physiology of digestion and absorption of carbohydrates. 6+5=11

3. What are neuron and synapse? Explain how the nerve impulse is conducted through a nerve axon. 2+2+7=11

4. Describe the composition of vertebrate blood. Illustrate your answer with suitable diagrams. Write a note on major functions of blood. 5+2+4=11

5. Define glycolysis. Describe the sequential steps of glycolysis mentioning the enzymes and coenymes involved in each step. 2+9=11

6. Describe the structure of thyroid gland. Mention the hormones secreted by the thyroid gland and enumerate their functions. 4+7=11

7. With the help of a well-illustrated diagram, explain the double helical structure of DNA. Add a note on the structural differences between DNA and RNA. 2+6+3=11

(3)

8. Write notes on any *two* of the following :

5½×2=11

- (a) Glomerular filtration
- (b) Biological significance of proteins
- (c) Neuroendocrine system in insects
- (d) Synaptic transmission

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