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3 SEM TDC ZOOH (CBCS) C 6

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(Held in January/February, 2022)

ZOOLOGY

(Core)

Paper : C-6

**(Animal Physiology : Controlling and
Coordinating System)**

Full Marks : 53

Pass Marks : 21

Time : 3 hours

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

1. Fill in the blanks : 1×5=5
- (a) Blood is a type of _____ tissue.
 - (b) Human chorionic gonadotropic hormone is secreted by _____.
 - (c) Muscle filaments are known as _____.
 - (d) The sperms of seminiferous tubules are nourished by _____ cells.
 - (e) _____ gland is also known as third eye.

2. Distinguish between the following (any two) :
3×2=6
- (a) Simple squamous and brush-bordered ciliated cuboidal epithelium
 - (b) Cartilage and bone
 - (c) Isotonic and isometric muscle contractions
3. Write illustrative notes on the following (any two) :
3×2=6
- (a) Histology of pituitary gland
 - (b) Neurotransmitter
 - (c) Placental hormone
 - (d) Function of somatotrophic hormone
4. Write short notes on the following (any two) :
4½×2=9
- (a) Ultrastructure of seminiferous tubule
 - (b) Oogenesis
 - (c) Menstrual cycle
 - (d) Thyroxine hormone
5. What is neuron? Describe the propagation of action potential along the myelinated and non-myelinated nerve fibres.
1+8=9

(3)

Or

What is reflex action? Discuss about its types.

1+8=9

6. Describe the ultrastructure of skeletal muscle with illustrative diagram. 6+3=9

Or

Explain the chemical basis of muscle contraction.

9

7. What do you mean by signal transduction? Describe the mechanism of action of steroidal and non-steroidal hormones. 2+7=9

Or

Describe the structure and functions of neuromuscular junction. Compare between cardiac and smooth muscle fibres.

6+3=9
