

1247

4

5. (a) Outline the major events of uterine cycle and correlate them with ovarian events (10)
- (b) Diagrammatically represent folliculogenesis in ovary. (5)
6. Write short notes (**any three**) (3×5=15)
- (i) Hypothalamo-hypophyseal Portal System
- (ii) Hormonal control of testicular function
- (iii) Ultrastructure of a Sarcomere
- (iv) Generation of action potential in neuron
- (v) Synthesis and Secretion of thyroid hormones

(1000)

[This question paper contains 4 printed pages.]

12 JUL 2023

Your Roll No. ....

Sr. No. of Question Paper : 1247

Unique Paper Code : 2232011203

Name of the Paper : Human Physiology: Control and Coordination Systems/  
Discipline Specific Core- 6

Name of the Course : **B.Sc (Hons) Zoology Exam- 2023**

Semester : II-(NEP-UGCF)

Duration : 2 Hours Maximum Marks : 60

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **FOUR QUESTIONS** in all and **Question no. 1** is **COMPULSORY**.
3. Draw well labelled diagram wherever necessary

1. (a) Define the following (**Any Four**): (4)  
(i) Saltatory conduction

P.T.O.

(ii) TRIAD

(iii) Permissive effect

(iv) Implantation

(v) Motor Unit

(b) Differentiate between the following: (4)

(i) Absolute vs Relative refractory period

(ii) Granulosa vs Thecal cells

(c) Give the location and function of the following: (3)

(i) Fascia

(ii) Corpus luteum

(iii) Principal cells

(d) Expand the following: (2)

(i) IPSP

(ii) ICSH

(iii) BMR

(iv) PRL

(e) Match the following: (2)

1. Myosin

(a) Axon

2. Nissl granules

(b) A band

3. Tropomyosin

(c) Calcitonin

4. Parafollicular cells

(d) I band

2. (a) How is blood-testes barrier important? Giving the functions of Leydig and Sertoli cells explain the key events in spermatogenesis. (10)

(b) Describe the various types of muscle proteins. (5)

3. (a) Describe the events occurring at the neuromuscular junction (8)

(b) Explain the muscle contraction cycle. (7)

4. (a) Diagrammatically illustrate the different layers of adrenal gland. Enumerate the hormones secreted and describe their functions. (10)

(b) Explain the mode of action of water soluble hormone. (5)