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**NY—173—2023**

**FACULTY OF SCIENCE AND TECHNOLOGY**

**M.Sc. (Second Year) (Third Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**(New/CBCS Pattern)**

**ZOOLOGY**

**Paper—XIII—D**

**(Animal Physiology–I (General Physiology–I))**

**(Saturday, 9-12-2023)**

**Time : 2.00 p.m. to 5.00 p.m.**

*Time—3 Hours*

*Maximum Marks—75*

*N.B. :— (i) Attempt all questions.*

*(ii) All questions carry equal marks.*

*(iii) Illustrate well labelled diagrams wherever necessary.*

1. Discuss in detail temperature compensation in homeotherms. 15

*Or*

What is homeostasis ? Explain the physiology of homeostatic mechanism.

2. What is reflex arc ? Discuss various properties and types of reflexes. 15

*Or*

Explain in detail the physiology of modulated transmission of nerve impulses.

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3. Discuss in detail about physiological polycythemia. 15

Or

Explain in detail the effects of high altitude on human physiology.

4. Explain in detail endocrine response to exercise. 15

Or

Explain in detail circulatory and cardiovascular changes during muscular exercise.

5. Write short notes on any *three* : 15

- (a) Diabetes mellitus
- (b) Ultrastructure of Synapse
- (c) Underwater respiration
- (d) Meditation.

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