

M.Sc. (Zoology) Semester - 3 (CBCS) Examination
OCT/NOV-2024 (AS PER SYLLABUS YEAR JUNE-2024)
Mammalian Physiology (Core (New-23))

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.
3. Draw neat and labeled diagram wherever needed.

Que-1 Answer any seven out of ten.**(14)**

- 1.1. What is body mass index?
- 1.2. Define Nutrition.
- 1.3. Describe differences in between primary and secondary spermatocytes.
- 1.4. Draw accessory structures of the eye.
- 1.5. Explain *Zona pellucida*.
- 1.6. Write about alterations in the brain due to chronic stress.
- 1.7. Draw nephron.
- 1.8. What is hyperthermia?
- 1.9. Write about hormonal regulation of the female reproductive cycle.
- 1.10. Write about “Androgens are anabolic hormones”.

Que-2 Answer any two out of three.**(14)**

- 2.1. Describe basal metabolic rate and its effects on body.
- 2.2. Explain formation, storage, and release of thyroid hormones.
- 2.3. Write about: mechanical and chemical digestion in the stomach.

Que-3 Answer any two out of three.**(14)**

- 3.1. Describe comparative anatomy of heart structure.
- 3.2. Write a short note on blood volume regulation, blood groups.
- 3.3. Write about ECG – its principle and significance.

Que-4 Answer any two out of three.**(14)**

- 4.1. Make a note on: physiology of excretion.
- 4.2. Write short note on: Waste elimination and micturition.
- 4.3. Describe transport of gases and exchange of gases.

Que-5 Answer any two out of three.**(14)**

- 5.1. Write short note on vision and anatomy of the eyeball.
- 5.2. Describe Thermoregulation: comfort zone, body temperature – physical, chemical, neural regulation and acclimatization.
- 5.3. Write about stress and adaptation.
