

May 2025
M.Sc.
Second Semester
CORE – 06
ZOOLOGY
Course Code: MZOC 2.21
(Animal Physiology)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

1. Give a detailed account of the mechanism of digestion and absorption of carbohydrates. 7+7=14
2. Write a note on each of the following: 7×2=14
 - (a) Gastrointestinal hormones in vertebrates
 - (b) Regulation of digestive enzymes in mammals

UNIT-II

3. Describe the structure of neuroanatomy of brain with a well-labelled diagram. Add a note on their functional processing. 10+4=14
4. Write a note on each of the following: 7×2=14
 - (a) Structure of chloride chemicals
 - (b) FMRF-amide family

UNIT-III

5. Explain the regulation of respiration in detail. Add a note on the respiratory function of blood. 10+4=14
6. Write a note on each of the following: 7×2=14
 - (a) Respiratory buffering
 - (b) Transport of oxygen

UNIT-IV

7. Write an account of the mechanism and regulation of osmoregulation in aquatic animals. 7+7=14
8. Write a note on each of the following: 7×2=14
- (a) Counter current mechanism of urine formation
 - (b) Heat balance in animals

UNIT-V

9. Explain the intrinsic and extrinsic regulation of the cardiac amplitude in mammals with proper graphical representations. 7+7=14
10. Write a note on each of the following: 7×2=14
- (a) Blood pressure
 - (b) Neuromuscular junction
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