

2023
B.A./B.Sc.
Fourth Semester
CORE – 9
ZOOLOGY
Course Code: ZOC 4.21
(Physiology: Life Sustaining Systems)

Total Mark: 70
Time: 3 hours

Pass Mark: 28

Answer five questions, taking one from each unit.

UNIT-I

1. What are the constituents of gastrointestinal tract? Explain in detail. Name the associated glands of gastrointestinal tract and describe the structure of the salivary gland. 1+6+7=14
2. Write an account on the digestion and absorption of protein in the gastrointestinal tract. 14

UNIT-II

3. Write notes on the following: 7×2=14
 - (a) Histology of lung
 - (b) Carbon monoxide poisoning
4. Explain the oxygen dissociation curve. What factors and how does it result in causing this curve? 7+7=14

UNIT-III

5. Explain the structure of kidney with a labelled diagram and state briefly its role in the formation of urine. 10+4=14
6. Write notes on the following: 7×2=14
 - (a) Regulation of water balance
 - (b) Nephron

UNIT-IV

7. Describe the structure and functions of haemoglobin. Explain the steps of haemostasis in blood? $8+6=14$
8. Elaborate on the Kallikrein-Kininogen system and fibrinolytic system in blood. $7+7=14$

UNIT-V

9. Describe the structure of the mammalian heart with a diagram. Write a note on coronary circulation. $8+6=14$
10. Write notes on the following: $7 \times 2 = 14$
- (a) Cardiac output
 - (b) Chemical regulation of heart rate
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