

2024
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. Name the associated glands of gastrointestinal tract and state its sites?
Explain the structure of pancreas with a diagram. Mention the enzymes secreted by the associated glands and explain the action of these enzymes on the target nutrients in the gastrointestinal tract. $2+7+5=14$
2. Write an account on the gastrointestinal digestion and absorption of carbohydrates with a diagram. $11+3=14$

UNIT-II

3. Write notes on the following: $7 \times 2 = 14$
 - (a) Structure of vertebral respiratory pigment and its function
 - (b) Transportation of carbon dioxide
4. Explain the mechanism of breathing. Explain the control centres of respiration. $10+4=14$

UNIT-III

5. Explain the structure of nephron with a labelled diagram. Discuss the mechanism of formation of urine. $6+8=14$
6. With a diagram explain the role of the kidney in the regulation of acid-base balance of the body. $3+11=14$

UNIT-IV

7. What are the different components of blood? Write in detail the types of blood cells and their functions. $4+10=14$
8. Write notes on the following: $7\times 2=14$
- (a) Complement system
 - (b) Blood groups

UNIT-V

9. Describe the origin and conduction of cardiac impulses. Draw a chart explaining the same. $10+4=14$
10. Write notes on the following: $7\times 2=14$
- (a) ECG
 - (b) Blood pressure
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