

Exam Code: 225001

COE-Office
30-11-2024 [EVE]
Paper Code: 1228

Master of Science (Zoology) Semester I

KMV-II

Course Title: Functional Organization of Animals - I

Course Code: MZOL-1481

Time: 3 Hours

Max. Marks: 70

Note: Attempt five questions, selecting one question from each section. The fifth question can be attempted from any section. Each question carries 14 marks.

SECTION A

- Q1. Give ingestion of soluble food and particulate food in cnidarians and crustaceans.
- Q2. Write note on followings:-
(a) Suspension feeding
(b) Symbiotic nutrition

SECTION B

- Q3. Give a detailed account of evolution of cardio vascular system.
- Q4. Explain in detail the transport of external medium in sponges.

SECTION C

- Q5. Describe the respiratory organs in aerial mode.
- Q6. Write a detailed note on respiratory pigments in nonchordates and chordates.

SECTION D

- Q7. Give mechanism of excretion in annelids.
- Q8. Give evolution of separation of urinogenital system in chordates.

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Paper Code: 1229

Master of Science (Zoology) - Semester I

Course Title: Animal Ecology

Course Code: MZOL-1482

Time: 3 Hours

Max. Marks: 70

Note: Attempt five questions, selecting one question from each section. The fifth question can be attempted from any section. Each question carries 14 marks.

SECTION A

1. Classify Marine water habitat. Discuss marine water habitat along with characteristic fauna.
2. Describe various sources of Water pollution, its effects and control along with suitable examples.

SECTION B

3. Write a note on Ecological niche.
4. What you understand by symbiosis interactions? Discuss it with suitable examples.

SECTION C

5. Discuss Aerial and subterrestrial adaptations in animals with the help of suitable examples.
6. What is population ecology? Explain characteristics of population along with suitable examples.

SECTION D

7. Explain anthropogenic interferences, its effects and different methods for protection of environment.
8. Write a note on Island ecology.

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Paper Code: 1230

Programme: Master of Science (Zoology) Semester- I

Course Title- Cell Biology

Course Code - MZOL-1483

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks. Draw neat and well labelled diagrams wherever required.

Section A

1. Discuss the role of Actin and Myosin in muscle contraction. 14
2. Discuss Fluid Mosaic model in detail with suitable diagram. 14

Section B

3. Ribosomes are site of protein synthesis. Justify the statement. 14
4. Give structure and function of Golgi complex. 14

Section C

5. (a) Explain Citric acid cycle in mitochondria and give its end product. 07
- (b) Discuss the functions of Peroxisomes. 07
6. Give structure and function of Lysosomes. 14

Section D

7. Write detailed account of cell cycle. 14
8. Write note on following: (4+4+6=14)
 - (a) Neurotransmitters
 - (b) Plant hormones
 - (c) Peptide hormones and Growth factors

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Paper Code: 1231

Master of Science (Zoology) - Semester I

Course Title: Concepts of Biotechnology

Course Code: MZOL-1484

Time: 3 Hours

Max. Marks: 70

Note: Attempt five questions, selecting one question from each section. The fifth question can be attempted from any section. Each question carries 14 marks.

Section – A

- Q1. Write a note on following
(a) Cryopreservation
(b) Thawing of frozen cells
- Q2. Give structure and Functions of DNA Ligase in detail.

Section – B

- Q3. Give detailed account of Gene sequencing.
- Q4. Write note on following
(a) RFLP
(b) Plasmid vectors

Section – C

- Q5. Write principle, theory and applications of Western blotting.
- Q6. What is Polymerase Chain Reaction? Give procedure and applications.

Section – D

- Q7. Give detailed procedure of Hybridoma Technology.
- Q8. Give a detailed account of viral vaccines.

C.O.E office 19/12/24 (EVE) KMV² II

Exam Code: 225001

Paper Code: 1232

Master of Science (Zoology) - Semester I

Course Title: Computer Programming and Data Processing

Course Code: MZOM-1135

Time: 3 Hours

Max. Marks: 40

Note: Attempt five questions, selecting one question from each section. The fifth question can be attempted from any section. Each question carries 8 marks.

Section A

- Q1) Define operating system. Write its functions.
Q2) Write advantages and limitations of computer.

Section B

- Q3) Write the features of Spreadsheet software.
Q4) With the help of examples perform the operations
a) Create a word document
b) Format a presentation

Section C

- Q5 a) Write the program structure in C.
b) Write any three features of C language.
Q6 Explain input and output statements in C with examples.

Section D

- Q7) Write a program in C to depict the use of 'else if ladder'.
Q8) Explain the following:-
a) Array
b) Usage of array
c) While loop
d) For loop