

609821448019

Code No. D-6004/BL

FACULTY OF SCIENCE

B.Sc. (CBCS) V Semester (Backlog) Examination, August 2022

Subject: Zoology

Paper – I : Animal Diversity Invertebrates

Time: 3 Hours

Max. Marks: 80

PART – A

Note: Answer any eight questions.

(8 x 4 = 32 Marks)

1. Giardiasis
2. Classification of porifera
3. Locomotion in protozoa
4. Schistosoma
5. Coral reef formation
6. Polymorphism in siphonophora
7. General characters of Annelida
8. Metamerism
9. Insect of Metamorphosis
10. General characters of Mollusca
11. Detorsion in Gastropoda
12. Classification of Echinodermata

PART – B

Note: Answer all the questions.

(4 x 12 = 48 Marks)

13. (a) Explain Elphidium structure and life history.

(OR)

(b) Explain sycon structure and life history.

14. (a) Explain structure and life history of obelia.

(OR)

(b) Describe the general characters and classification of Nematelminthes.

15. (a) Describe Hirudinaria granulosa circulatory system.

(OR)

(b) Explain prawn digestive system.

16. (a) Explain the pila nervous system.

(OR)

(b) Elaborate on the Echinoderm larvae and their significance.

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Code No: E-10104

FACULTY OF SCIENCE

B.Sc. (CBCS) II- Semester (regular / Backlog) Examination, June / July 2023

Subject: Zoology

Paper - II: Animal Diversity Vertebrates

Time: 3 Hours

Max. Marks: 80

PART - A

Note: Answer any eight questions.

(8 x 4 = 32 Marks)

1. Tornaria
2. Salient features of Urochordata.
3. Affinities of cephalochordata.
4. Efferent branchials
5. Cutaneous respiration
6. Neoteny.
7. Flight Muscles in Birds.
8. Duction caratices
9. Pectin
10. Monotremata.
11. Carnivora.
12. Blubber.

PART - B

Note: Answer all the questions.

(4 x 12 = 48 Marks)

13. a) Discuss general characters of cyclostomata.  
(OR)  
b) Write the affinities of Balanoglossus.
14. a) Explain the types of scales with suitable examples.  
(OR)  
b) Explain *Rana tigrina* Nervous system.
15. a) Discuss the Flight adaptation in Birds.  
(OR)  
b) Explain the comparative characters of poisonous and non-poisonous snakes.
16. a) Explain the general characters of Mammalia.  
(OR)  
b) Give an account on Aquatic Adaptations in Mammals.

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Code No: E-10212

**FACULTY OF SCIENCE**

**B.Sc. (CBCS) III Semester Examination, December 2022 / January 2023**

**Subject: Zoology**

**Paper – III : Animal Physiology and Animal Behaviour**

**Time: 3 Hours**

**Max. Marks: 80**

**PART – A**

**Note: Answer any eight questions.**

**(8 x 4 = 32 Marks)**

1. Write about types of digestion.
2. Ammonotelic animals.
3. Ultrafiltration.
4. Types of respiration.
5. Bohr effect.
6. Neurogenic heart.
7. Cardiac muscle.
8. Muscle twitch.
9. Synapse.
10. Structure of thyroid gland.
11. Taxes.
12. Imprinting.

**PART – B**

**Note: Answer all the questions.**

**(4 x 12 = 48 Marks)**

13. (a) Describe digestion of carbohydrates.  
(OR)  
(b) Explain counter current mechanism.
14. (a) Write in brief about concept of homeostasis.  
(OR)  
(b) Write about the transport of  $\text{CO}_2$ .
15. (a) Describe structure and functioning of Mammalian heart.  
(OR)  
(b) Explain sliding filament theory of muscle contraction.
16. (a) Explain Trial and Error Learning.  
(OR)  
(b) Explain biological clocks.

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Code No. E-10312

**FACULTY OF SCIENCE**

**B.Sc. (CBCS) IV- Semester (Regular & Backlog) Examination, June / July 2023**

**Subject: Zoology**

**Paper-IV: Cell Biology Genetics and Development Biology**

**Time: 3 Hours**

**Max. Marks: 80**

**PART – A**

**Note: Answer any eight questions.**

**(8 x 4 = 32 Marks)**

1. Fluid mosaic model
2. Centromere
3. Significance of Meiosis
4. Nucleotide and Nucleoside
5. Functions of mRNA
6. Triplet code
7. Law of segregation
8. Deletions
9. Phenylketonuria
10. Significance of Fertilization
11. Holoblastic cleavage
12. Gastrulation in Frog

**PART – B**

**Note: Answer all the questions.**

**(4 x 12 = 48 Marks)**

13. (a) Describe the mitotic cell division stages.

**(OR)**

(b) Write an essay on the structure and functions of Mitochondria.

14. (a) Explain the process of DNA replication.

**(OR)**

(b) Describe briefly the process of protein synthesis.

15. (a) What are Gene mutations? Add a note on types of gene mutations.

**(OR)**

(b) Describe briefly the mechanism of sex determination.

16. (a) Define Oogenesis. Discuss briefly the stages of Oogenesis in human females.

**(OR)**

(b) Explain the types and functions of placenta in mammals.

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Code No: E-10414

FACULTY OF SCIENCE

B. Sc. (CBCS) V - Semester Examination, December 2022 / January 2023

Subject: Zoology

Paper -V (C): Immunology & Animal Biotechnology

Time: 3 Hours

Max. Marks: 80

PART - A

Note: Answer any eight questions.

(8 x 4 = 32 Marks)

1. Cell of Immune System
2. Types of Immunity
3. Phagocytosis
4. Haptens
5. Adjuvants
6. Cytotoxicity
7. Cosmids
8. Shuttle Vectors
9. Transgenic fish
10. Embryo Transfer
11. Animal Bioreactors
12. Bio pesticides

PART - B

Note: Answer all the questions.

(4 x 12 = 48 Marks)

13. (a) Explain Major Histocompatibility Complex Structure & Functions.  
(OR)  
(b) Describe Humoral and cell mediated Immunity.
14. (a) Describe Hyper sensitivity Reactions.  
(OR)  
(b) Elaborate on Auto immunity and Immunodeficiency diseases.
15. (a) Elucidate on Recombinant DNA technology and its applications.  
(OR)  
(b) Explain Transgenesis and Methods of Transgenesis.
16. (a) Describe stem cells their types and their applications.  
(OR)  
(b) Explain Hybridoma Technology write their applications.

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FACULTY OF SCIENCE

B.Sc. (CBCS) VI- Semester (Regular & Backlog) Examination, June / July 2023

Subject: Zoology

Paper – VI (B): Ecology, Zoogeography and Evolution

Time: 3 Hours

Max. Marks: 80

PART – A

Note: Answer any eight questions.

(8 x 4 = 32 Marks)

1. Nitrogen cycle
2. Food chain
3. Commensalism
4. Growth curves
5. Noise pollution
6. Endangered species
7. Continental drift
8. Ethiopian regions
9. Biodiversity
10. Law of segregation
11. Allopatric species
12. Mutation's importance

PART – B

Note: Answer all the questions.

(4 x 12 = 48 Marks)

13. (a) Write the structure and functions of Aquatic ecosystem  
(OR)  
(b) Describe the steps involved in energy flow in ecosystem.
14. (a) Explain the community structure and their dynamics in detail  
(OR)  
(b) Write the effects and control strategies of Air pollution.
15. (a) Give an account on Palearctic and Nearctic regions climate and their faunal peculiarities.  
(OR)  
(b) Illustrate the hotspots of biodiversity in India and their significance.
16. (a) Write an essay on Modern synthetic theory.  
(OR)  
(b) Explain about pre mating and post mating isolation mechanisms.

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