Code No. 23J128/NC /ZOO

Nizam College (Autonomous)
Faculty of Science
B.SC. I- Semester Examinations, January - 2023
Zoology : Paper – I
(Animal Diversity-Invertebrates)

Time : 3 Hours

Max. Marks : 80

Section – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Amoebiasis.
2. Sarcodina.
3. Asconoid canal system
4. Corals
5. Parasitic adaptations in Helminthes.
6. Medusa.
7. Coelom.
8. Insect Metamorphosis.
9. Thoracic Appendages.
10. Pearl Formation.
11. Radula.
12. Brachiolaria.

Section – B

II. Answer the following questions using internal choice. [4 x 12 = 48]

13. (a) Elphidium shows "Alternation of Generation" in its life Cycle-Discuss.

[OR]

(b) Illustrate the general characters and classification of Porifera.

14. (a) Describe polymorphism in Siphonophora.

[OR]

(b) Give an account on the structure and life cycle of Dracunculus.

15. (a) Write about the digestive system in Leech.

[OR]

(b) Write about the external features and affinities of Peripatus.

16. (a) Explain in detail about Torsion and Detorsion in Gastropods.

[OR]

(b) Explain about water vascular system in Star Fish.

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Code No. 23M128/NC /ZOO

Nizam College (Autonomous)
Faculty of Science
B.SC. I- Semester Examinations, May - 2023
Zoology : Paper – I
(Animal Diversity-Invertebrates)

Time : 3 Hours

Max. Marks : 80

Section – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Spongin fibres.
2. Giardiasis.
3. Choanocytes.
4. Fringing reef
5. Obelia colony
6. Hydrozoa
7. Cocoon formation
8. Metamerisn
9. Metamorphosis in insects
10. Mantle cavity
11. Tube feet
12. Bipinnaria larva.

Section – B

II. Answer the following questions using internal choice. [4 x 12 = 48]

13. (a) Write an essay on sexual & asexual reproduction in Protozoa.?

[OR]

(b) Explain different types of canal system in Porifera.?

14. (a) What is parasitism. Discuss the parasitic adaptations in Helminthes?

[OR]

(b) Give an account on the structure and life cycle of Schistosoma?

15. (a) Write about the excretory system in Leech.?

[OR]

(b) Describe in details the different types of Crustacean larvae.?

16. (a) Explain in detail the pearl formation in Mollusca.?

[OR]

(b) Explain about water vascular systems in Star Fish.?

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Code No. 23D/128/NC /ZOO

Nizam College (Autonomous)
Faculty of Science
B.SC. I- Semester Examinations, December - 2023
Subject : Zoology
Paper – I : (Animal Diversity-Invertebrates)

ne : 3 Hours Max. Marks : 80

Section – A

nswer any EIGHT of the following questions. [8 x 4 = 32]

1. Malaria
2. Spicules
3. Suctoria
4. Hydrozoa
5. Circaria
6. Pseudocoelomata
7. Metamerism
8. Appendages of Prawn
9. Peripatus
10. Scaphopoda
11. Autotomy in starfish
12. Ophiopluteus

Section – B

Answer the following questions [4 x 12 = 48]

13. (a). Explain about the different reproductive methods in Protozoa

[OR]

(b). Explain about Canal system in sponges with examples

14. (a). Write essay on Coral reefs

[OR]

(b). Write about the parasitic Adaptation in Helminths

15. (a). Give an account on general characters and classification of Annelida

[OR]

(b). What is metamorphosis. Expain different types of metamorphosis in insects with examples

16. (a). Write essay on pearl formation in Mollusca

[OR]

(b). Describe water vascular system in Star fish with neat labelled diagram

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Code No. 23M228/NC /ZOO

NIZAM COLLEGE (AUTONOMOUS)
FACULTY OF SCIENCE
B.SC. II- SEMESTER EXAMINATIONS, MAY – 2023
ZOOLOGY : PAPER -2

Time : 3 Hours Max. Marks : 80

SECTIO N – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Structure of balanoglossus
2. Cyclostomata
3. Urochordata
4. Latimeria
5. cycloid scale
6. paedogenesis
7. Dinosaurs
8. Archeornithis
9. Sphenodon
10. Monotremata
11. Typical dentition in mammals
12. Jaw suspension in mammals.

SECTION – B

II. Answer the following questions. [4 x 12 = 48]

13. (a) What is retrogressive metamorphosis? Explain it with reference to Herdmania.

[OR]

(b) Write an essay on general characters and classification of chordate with suitable examples.

14. (a) Explain about the different types of scales & fins in fishes.

[OR]

(b) Describe the respiratory system in Rana tigrina.

15. (a) Write an essay on general characters and classification of reptiles.

[OR]

(b) Write an essay on flight adaptations in birds.

16. (a) Explain about the circulatory system in Rabbit with neat labeled diagram.

[OR]

(b) Explain about the structure of rabbit heart with a neat labeled diagram.

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Code No. 23J/3S28/NC/Zoo-SEC

Nizam College (Autonomous)

Faculty of Science

B.SC. III- Semester Examinations, January - 2023

Zoology : SEC-2

Time : 2 Hours

Max. Marks : 40

Section – A

I. Answer any FOUR of the following questions. [4 x 4 = 16]

1. Minerals
2. Night blindness
3. Impact of pesticides in agriculture
4. Air pollution
5. Cholera
6. Hypertension
7. Child labour acts
8. AIDS

Section – B

II. Answer the following questions using internal choice [3 x 8 = 24]

9. (a) Explain the concept, steps and applications of health impact assessment.

[OR]

(b) Write an essay on Water Pollution and its associated health hazards.

10. (a) Describe in details the causes, symptoms, diagnosis, treatment and prevention of any two non-communicable diseases.

[OR]

(b) Describe in detail the maternity benefit act.

11. (a) Describe the nutritional deficiencies and disorders.

[OR]

(b) Write an essay on various WHO programs.

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Code No. 23J328/NC /ZOO

Nizam College (Autonomous)
Faculty of Science
B.SC. III- Semester Examinations, January - 2023
Zoology : Paper - III

Time : 3 Hours | Max. Marks : 80

Section – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Digestion of lipids
2. Ammonotelic animals
3. Classification of enzymes
4. Homeostasis
5. Oxygen dissociation curve
6. Tachycardia
7. Sarcomere
8. Neuron
9. Pancreas
10. Reflexes
11. Trial and error learning
12. Biological rhythms

Section – B

II. Answer the following questions using internal choice. [4 x 12 = 48]

13. (a) Give an account of gastrointestinal hormones and their role in digestion.

[OR]

(b) Classify the animals on the basis of excretory products and elaborate it with suitable examples.

14. (a) Write an essay on the transport of oxygen and carbon dioxide.

[OR]

(b) Describe the structure of a mammalian heart? Add a note on its working Mechanism.

15. (a) Describe the sliding filament theory of muscle contraction in detail.

[OR]

(b) Define action potential and describe in detail the mechanism of conduction of nerve impulse.

16. (a) Describe in detail the social behaviour in insects with suitable examples.

[OR]

(b) Write an essay on Pheromones.

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Code No. 23M328/NC /ZOO

Nizam College (Autonomous)
Faculty of Science
B.SC. III- Semester Examinations, May - 2023
Zoology : Paper - III

Time : 3 Hours Max. Marks : 80

Section – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Cellulose digestion
2. Structure of a nephron
3. Gastrointestinal hormones
4. Respiratory pigments
5. Bohr' effect
6. Neurogenic & Myogenic heart
7. Ultra structure of skeletal muscle fibre
8. Resting potential
9. Thyroid gland
10. Taxes
11. Imprinting
12. Pheromones

Section – B

II. Answer the following questions using internal choice. [4 x 12 = 48]

13. (a) Give an account of digestion of carbohydrates in different parts of the Alimentary canal followed by their absorption and assimilation.

[OR]

(b) Describe the physiology of urine formation emphasizing on counter current mechanism.

14. (a) Explain the concept of homeostasis in detail.

[OR]

(b) Describe the structure of mammalian heart? Add a note on its working Mechanism.

15. (a) Describe the sliding filament theory of muscle contraction in detail.

[OR].

(b) What is a synapse? Explain the mechanism of synaptic transmission.

16. (a) What is Animal behaviour? Explain in detail, the different types of behavioral patterns observed in animals giving suitable examples.

[OR]

(b) Write an essay on Circadian rhythms.

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Code No. 23D/328/NC /ZOO

Nizam College (Autonomous)
Faculty of Science
B.SC. III- Semester Examinations, December - 2023
Subject : Zoology
Paper – III : (Animal Physiology and Animal Behaviour)

Time : 3 Hours Max. Marks : 80

Section – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Digestion of Cellulose
2. Nephron and its Functions
3. Osmoregulation in Marine Water Animals
4. Write The Role of Hypothalamus in Homeostasis
5. Regulatory Factors of Respiration
6. Bradycardia
7. Sliding Filament Theory
8. Structure of Neuron
9. Male Hormones
10. Circadian Rhythms
11. Threshold Potential
12. Colony of Bees

Section – B

II. Answer the following questions. [4 x 12 = 48]

13. (a) What are Enzymes ? Write about the Classification of Enzymes?

[OR]

(b) Write about process of Absorption and Assimilation of Digested Foods?

14. (a) Write detailed account of Respiratory Pigments and Their Role in Transport of Oxygen?

[OR]

(b)Write detailed Mechanism of Blood Clotting and its Significance?

15. (a) Explain about Hormonal Regulation of Menstrual Cycle of Human Beings?

[OR]

(b) Explain in detail about the Structure and Function of Pancreas?

16. (a) What is Ethology? Explain about Various types of Animal Behavior ?

[OR]

(b) Define Biological Rhythms? Write about Different Rhythms in Animals?

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Code No. 23M428/NC /ZOO

NIZAM COLLEGE (AUTONOMOUS)
FACULTY OF SCIENCE
B.SC. IV- SEMESTER EXAMINATIONS, MAY – 2023
ZOOLOGY : PAPER - IV

Time : 3 Hours

Max. Marks : 80

Section – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Ultrastructure of an animal cell
2. Ribosomes
3. Polytene chromosomes
4. Genetic code
5. t RNA
6. PCR
7. Incomplete dominance.
8. Sex determination in drosophila
9. Alkaptonuria
10. Microlecithal Egg
11. Holoblastic clearage
12. Gastrulation in frog

SECTION – B

II. Answer the following questions using internal choice. **[4 x 12 = 48]**

13. (a) Explain the fluid mosaic model of plasma membrane in detail.

[OR]

(b) Describe the various stages of Mitotic cell division and add a note on its significance.

14. (a) Elaborate on the Watson Crick model of DNA.

[OR]

(b) Write in detail the agarose gel electrophoresis and its applications.

15. (a) Describe the Mendel's laws of inheritance.

[OR]

(b) What are Chromosomal mutations ? Discuss with suitable examples.

16. (a) Give a detailed account on the types of cleavages.

[OR]

(b) Define Regeneration.Explain the process of regeneration in Turbellaria and Lizards.

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Code No. 23J528/NC /ZOO

Nizam College (Autonomous)
Faculty of Science
B.SC. V- Semester Examinations, January - 2023
Zoology : Paper – V
(Immunology and Animal biotechnology)

ne : 3 Hours Max. Marks : 80

Section – A

[8 x 4 = 32]

Answer any EIGHT of the following questions.

1. Thymus
2. Inflammation
3. Passive immunity
4. Opsopnization
5. Autoimmunity
6. Hapten
7. Lambda Bacteriophage
8. Transgenic fish
9. Electroporation method of transgenesis
10. Biopesticide
11. Embryo transfer
12. Embryonic stem cells

Section – B

I. *Answer the following questions using internal choice.* [4 x 12 = 48]

13. (a) What is Immunity? Discuss in detail the different types of Immunity?

[OR]

(b) What is MHC? Describe the structure and function of class I and class II Proteins?

14. (a) What are Antigen Antibody reactions? Describe in detail the precipitation reaction giving suitable examples.

[OR]

(b) Define Hypersensitivity. Discuss in detail Type-I hypersensitivity reactions with suitable examples.

15. (a) What is Recombinant DNA Technology. Describe the methodology and applications of Recombinant DNA technology.

[OR]

(b) What is Cloning? Explain in detail the Mechanism of Gene Cloning.

16. (a) Describe in detail the steps involved in Invitro fertilization and Embryo transfer.

[OR]

(b) What is an Animal Bioreactor? Describe in detail the types and applications of Bioreactors?

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CODE NO: 23M/528/NC/CBCS/ZOO-6-B/L

NIZAM COLLEGE (AUTONOMOUS)
FACULTY OF SCIENCE
B.Sc. V–SEMESTER EXAMINATIONS MAY-2023
ZOOLOGY : PAPER –6
(ENTOMOLOGY)

[TIME: 2 HOURS] MAX. MARKS=40]

I.ANSWER THE FOLLOWING QUESTIONS [4x3=12]

1. Scope of entomology
2. Venomous Insects
3. Vector
4. Exo-erythrocytic shizont

SECTION-B

II. ANSWER THE FOLLOWING QUESTIONS USING INTERNAL CHOICE [4x7=28]

5. (a) Classify the insects on the basis of their distinctive characters giving suitable examples.

[OR]

(b) Discuss different types of mouth parts of insects with suitable examples.

6. (a) What are vector borne-diseases. Give an account of diagnosis, pathogenesis, treatment & prophylaxis of dengue fever.

[OR]

(b) Discuss the role of pests in agriculture and add a note on its economic importance.

7. (a) Give an account of the reproductive system in insects .

[OR]

(b) What is Apiculture. Explain about the importance of bee keeping.

8. (a) Write an essay on metamorphosis in insects.

[OR]

(b) What is sericulture. Explain the process of sericulture and give an account of various types of silk produced.

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CODE NO: 23M5528/NC/CBCS/ZOO-5

NIZAM COLLEGE (AUTONOMOUS)

FACULTY OF SCIENCE

B.Sc. V–Semester Examinations May - 2023

ZOOLOGY PAPER:-5

(Physiology & Biochemistry)

[TIME: 2 HOURS] **SECTION-A** [Max.marks 40]

(Short Answer Questions) [4x3=12]

1. Neurogenic heart
2. Second messengers
3. Osmo conformers.
4. Deamination

SECTION-B [4x7=28]

(Essay Questions)

5(a) Describe the transport of carbon dioxide. Add a note on Co_2 dissociation curve.

[or]

(b) Explain the mechanism of formation of Urine.

6 (a) What is a synapse? Explain synaptic transmission in detail.

[or]

(b) Describe the structure and functions of Pituitary Gland.

7(a) Give a brief account of the properties and classification of Enzymes.

[or]

(b) Explain β –Oxidation of fatty acids.

8 (a) Define osmoregulation. Describe the osmoregulatory mechanism in Fresh water fishes.

[or]

(b) Define glycolysis. Explain in detail the steps invoved in kreb's cycle.

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Code No. 23D/528/NC /ZOO

Nizam College (Autonomous)
Faculty of Science
B.SC. V- Semester Examinations, December - 2023
Subject : Zoology
Paper – V : (Immunology and Animal Biotechnology)

Time : 3 Hours Max. Marks : 80

Section – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Lymphoid organs
2. Acquired immunity
3. MHC in organ transplantation
4. Structure and function of IgG
5. Agglutination
6. Hypersensitivity reactions
7. Cosmids
8. Recombinant DNA technology
9. Shuttle vectors
10. Hybridoma technology
11. Biopesticides
12. Animal bioreactors

Section – B

II. Answer the following questions. [4 x 12 = 48]

13. (a) Write an essay on second line of defenses.

[OR]

(b) write a note on humoral and cell mediated immunity.

14. (a)Write a note on Monoclonal antibodies and applications.

[OR]

(b) Explain autoimmunity with a suitable examples.

15. (a)write a note on Plasmids and cloning methods.

[OR]

(b) Methods of Transgenesis.

16. (a) Invitro fertilization and embryo transfer.

[OR]

(b) Stem cells- types and applications.

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Code No. 23M628/NC /ZOO

NIZAM COLLEGE (AUTONOMOUS)
FACULTY OF SCIENCE
B.SC. VI- SEMESTER EXAMINATIONS, MAY – 2023
ZOOLOGY : PAPER – VI
(ECOLOGY, ZOO-GEOGRAPHY AND EVOLUTION)

Time : 3 Hours Max. Marks : 80

SECTION – A

I. Answer any EIGHT of the following questions. [8 x 4 = 32]

1. Water cycle
2. Detritus food chain
3. Pyramid of biomass
4. J-shaped growth curves.
5. Cursorial adaptations
6. Red data book
7. Ethiopian region
8. Discontinuous distribution
9. Hotspots
10. Lamarkism
11. Genetic drift
12. Isolation

SECTION – B

II. Answer the following questions using internal choice. [4 x 12 = 48]

13. (a) Explain about the structure and functions of ecosystem.

[OR]

(b) Give a detailed acount on ecological pyramids.

14. (a) What are the ecological adaptations. Explain about Aquatic and Volant adaptations.

[OR]

(b) Give a brief account on wild life conservation in India.

15. (a) What are Zoo-geographical regions. Explain about the climatic and faunal peculiarities of Australian region.

[OR]

(b) Explain about the bio-diversity hot-spots of India.

16. (a) Explain about the Darwinism and Neo-darwinism theory of evolution with examples.

[OR]

(b) What is speciation. Explain about the different methods of speciation.

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CODE NO: 23M/628/NC/CBCS/ZOO-7-B/L

NIZAM COLLEGE (AUTONOMOUS)
FACULTY OF SCIENCE
B.Sc. VI–SEMESTER EXAMINATIONS MAY-2023
ZOOLOGY : PAPER –VII
(IMMUNOLOGY)

E: 2 HOURS] MAX. MARKS=40]

SWER THE FOLLOWING QUESTIONS [4x3=12]

1. T-Cells and B-Cells
2. Major Histocompatibility complex
3. Humoral & cell mediated immunity
4. Transplantation

SECTION-B

I. ANSWER THE FOLLOWING QUESTIONS USING INTERNAL CHOICE [4x7=28]

5. (a) Write an essay on primary & secondary lymphoid organs.

[OR]

(b) What is Immunity. Explain in detail about the innate and acquired Immunity.

6. (a) What are monoclonal antibodies. Give an account on the therapeutic importance of monoclonal antibodies with suitable examples.

[OR]

(b) What is Vaccination. Discuss in detail about different types of vaccines.

7. (a) Write an essay on antibody-antigen reactions.

[OR]

(b) Explain in detail about the concepts of autoimmunity with reference to rheumatoid arthritis

8. (a) What are stem cells. Discuss the production & importance of stem cells.

[OR]

(b) What is graft rejection. Discuss the types & mechanism of graft rejection.

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