

Roll No _____

105796

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PG2S-291-B-23
M.Sc. II Semester Degree Examination
ZOOLOGY
Developmental Biology
Paper : HCT-2.2

Time : 3 Hours

Maximum Marks:80

Instruction to Candidates:

- 1) *ALL questions carry equal marks.*
- 2) *Illustrate your answer wherever necessary.*

Answer the following in brief.

(8×2=16)

1. a) Malformations
b) Metazoans
c) Acrosome
d) Organizer
e) Regeneration
f) Erythroblast cells
g) Hox genes
h) Teratology

2. a) Explain embryonic homologies in animals with suitable examples.

(16)

(OR)

- b) Give a detailed account on recognition chemistry of egg and sperm.

3. a) Describe the developmental patterns in protists.

(16)

(OR)

- b) Draw a neat labeled structure of male gamete with a brief explanatory note.

4. Write explanatory notes on any **TWO** of the following.

(2×8=16)

- a) Metamorphosis and Aging
- b) Mammalian dorsal-ventral axis formation
- c) Pluripotential hematopoietic cells

5. Write explanatory notes on any **FOUR** of the following.

(4×4=16)

- a) Stem cells concept
 - b) Teratogenesis and its agents
 - c) Environmental regulation of development
 - d) Lymphocytes lineage
 - e) Axis specification in *Drosophila*
 - f) Developmental Biology
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106170

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PG2S-293-B-23

M.Sc. II Semester Degree Examination

ZOOLOGY

Parasitology

Paper : HCT-2.1 (2)

Time : 3 Hours

Maximum Marks:80

Instructions to Candidates:

- 1) ALL questions carry equal marks.
- 2) Illustrate your answers whenever necessary

Answer the following in brief.

(8×2=16)

1. a) KFD.
b) Habitat.
c) Pathogenicity.
d) Migrants.
e) Disease.
f) *Echinococcus*.
g) Host and Parasite.
h) *Ancylostoma*.

2. a) Write a detailed note on protozoan parasites.

(16)

(OR)

- b) Explain physiological, social and behavioural aspects of host and parasite relationship.

3. a) Describe the habitat, life cycle, pathogenicity and prevention of house flies. (16)

(OR)

- b) Give an account on various diseases caused by bacterial infections.

4. Write an explanatory notes on any **TWO** of the following. (2×8=16)

- a) Classification and distribution of parasites
- b) Trematodan parasites
- c) Life cycle and pathogenicity of *Ascaris*

5. Write short notes on any **FOUR** of the following. (4×4=16)

- a) Concepts of parasitism
 - b) *Wuchereria bancrofti*
 - c) Pathogenicity and Prevention of fleas
 - d) Chemical cues
 - e) Japanese encephalitis
 - f) Life cycle of mosquito
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105961

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PG2S-290-B-23
M.Sc. II Semester Degree Examination
ZOOLOGY
Structure and Function of Vertebrates
Paper : HCT-2.1

Time : 3 Hours

Maximum Marks:80

Instruction to Candidates:

- 1) *ALL questions carry equal marks.*
- 2) *Illustrate your answer wherever necessary*

Answer the following in brief.

(8×2=16)

1.
 - a) Hoof
 - b) Sting organ
 - c) Atlas
 - d) Diastema
 - e) Filter feeders
 - f) Arteries
 - g) Cranial nerves
 - h) Receptors

2.
 - a) Describe the classification and significance of protochordates. (16)

(OR)

 - b) Give a comparative account on limbs in vertebrates.

3.
 - a) Explain in detail the respiratory organs in Amphibians. (16)

(OR)

 - b) Explain urino genital system in vertebrate series.

4. Write explanatory notes on any **TWO** of the following. (2×8=16)
 - a) Feeding habits in omnivores
 - b) Derivatives of integument
 - c) Lateral line organs in fishes.

5. Write a short notes on any **FOUR** of the following.

(4×4=16)

- a) Classification of chordates
 - b) Jaw suspension
 - c) Air sacs in birds
 - d) Autonomous nervous system
 - e) Carnivorous and omnivorous
 - f) Electric organs
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106356

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PG2S-292-B-23

M.Sc. II Semester (CBCS) Degree Examination

ZOOLOGY

Histology and Histochemistry

Paper : HCT-2.1 (I)

Time : 3 Hours

Maximum Marks:80

Instructions to Candidates:

- 1) *ALL questions carry equal marks.*
- 2) *Illustrate your answer wherever necessary*

Answer the following in brief.

(8×2=16)

- I.**
- a) Rickets
 - b) Bone remodeling
 - c) Node of Ranvier
 - d) Tissue fixation
 - e) Adenohypophysis
 - f) Primordial follicle
 - g) Sudan black
 - h) Coomassie brilliant blue
- II.**
- a) Discuss the different stages of bone development. Add a note on fracture healing. **(16)**
- (OR)**
- b) Describe the histological structure and functions of skin.
- III.**
- a) With a neat labeled diagram explain the structure and functions of neuron. **(16)**
- (OR)**
- b) Write a comprehensive note on histology of eye and discuss its functions.
- IV.** Write an explanatory notes histological structure on any **TWO** of the following. **(2×8=16)**
- a) Pituitary
 - b) Testis
 - c) Pineal gland
- V.**
- a) Explain the principle and procedure of histochemical detection of basic protein. **(16)**
- (OR)**
- b) Write a note on periodic acid schiff reaction and its histochemical applications.

105401

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PG2S-294-B-23
M.Sc. II Semester Degree Examination
ZOOLOGY
Economic Zoology
Paper - OET-2.1

Time : 3 Hours

Maximum Marks :80

Instructions to Candidates:

- 1) *All questions carry equal marks*
- 2) *Illustrate your answers wherever necessary*

I. Answer the following in brief:

(8×2=16)

- a) Inland fish farms
 - b) Orientation of comb
 - c) Ornamental fishes
 - d) Bee pollination
 - e) Rearing ponds
 - f) LSPs
 - g) Uzi - fly
 - h) Control method of weeds.
2. a) Explain in detailed about fish seed Technologies. **(16)**
- (OR)**
- b) Give an account on the honey bee history, scope and its importance.
3. a) Write an essay on breeding techniques of poultry and their economic values **(16)**
- (OR)**
- b) Describe the morphology and Life cycle of Bombyx mori.
4. **Write an explanatory note on any TWO of the following.** **(2×8=16)**
- a) Honey, and Wax extraction
 - b) Modern rearing technology - seed / cocoons.
 - c) Marketing strategies of poultry products.
5. **Write short notes on any FOUR of the following.** **(4×4=16)**
- a) Economics of Silk
 - b) Medicinal importance of honey.
 - c) Lac insect importance
 - d) Nector collection
 - e) Poultry wastes
 - f) Stocking ponds