

(DZOO21)

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M.Sc. (Second) DEGREE EXAMINATION, DECEMBER - 2018

(Second Year)

ZOOLOGY

Animal Physiology

Time : 3 Hours

Maximum Marks : 70

Answer all questions

All questions carry equal marks

Q1) a) What is the role of enzymes in digestion? Explain.

OR

b) Write short notes on:

i) Metabolism.

ii) Vitamins.

Q2) a) Give an account of circulatory system in animals.

OR

b) Write short notes on:

i) Respiration.

ii) Physiology of heart.

Q3) a) Describe the mechanism of nerve impulse transmission in animals.

OR

b) Write short notes on:

i) Brain.

ii) Neuron.

Q4) a) Give an account on ionic and osmotic balance in animals.

OR

b) Write short notes on:

i) Kidney.

ii) Excretion.

Q5) a) What is the role of hormones in reproduction? Explain.

OR

b) Write short notes on:

i) Muscle contraction.

ii) Types of muscles.



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M.Sc. (Second) DEGREE EXAMINATION, DECEMBER - 2018

(Second Year)

ZOOLOGY

Aquaculture

Time : 3 Hours

Maximum Marks : 70

Answer all questions

All questions carry equal marks

Q1) a) Give an account on inland water bodies suitable for culture in India.

OR

b) Write short notes on:

i) Significance of aquaculture.

ii) Induced breeding.

Q2) a) Describe the design and construction of a Pond farm.

OR

b) Write short notes on:

i) Stocking Ponds.

ii) *Macrobrachium rosenbergii*.

Q3) a) Give an account on culture of *Penaeus monodon*.

OR

b) Write short notes on:

- i) Milk fish.
- ii) Lates calcarifer.

Q4) a) Give an account on culture of Pearl Oysters.

OR

b) Write short notes on:

- i) Sea weeds.
- ii) Edible Oysters.

Q5) a) Give an account on Indian studies on hybridization of fish.

OR

b) Write short notes on:

- i) Androgenesis.
- ii) Cryopreservation.



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M.Sc. (Second) DEGREE EXAMINATION, DECEMBER - 2018

Second Year

ZOOLOGY

Parasitology and Immunology

Time : 3 Hours

Maximum Marks : 70

Answer all questions

All questions carry equal marks

Q1) a) Give an account on Giardia intestinalis.

OR

b) Write short notes on:

i) Entamoeba histolytica.

ii) Balantidium coli.

Q2) a) Give an account on biology, life cycle and portals of entry of Opisthorchis sinensis.

OR

b) Write short notes on:

i) Echinococcus granulosus.

ii) Schistosoma mansoni

Q3) a) Describe the biology, life cycle and nature of infection of Trichuris trichura.

OR

b) Write short notes on:

- i) Life cycle of *Wuchereria bancrofti*.
- ii) Nature of infection of *Ancylostoma duodenale*.

Q4) a) Give an account on overview of immunology.

OR

b) Write short notes on:

- i) Antigens.
- ii) Natural immunity.

Q5) a) Give an account on the organs of immune system.

OR

b) Write short notes on:

- i) IgG properties.
- ii) Antigen-antibody interactions.



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M.Sc. (Second) DEGREE EXAMINATION, DECEMBER - 2018

(Second Year)

ZOOLOGY

Biotechnology

Time : 03 Hours

Maximum Marks : 70

Answer all questions

All questions carry equal marks

Q1) a) Give an account on scope and overview of biotechnology.

OR

b) Write short notes on:

- i) Biotechnology in medicine.
- ii) Biotechnology in agriculture.

Q2) a) Describe the techniques of recombinant DNA technology.

OR

b) Write short notes on:

- i) Gene cloning.
- ii) Vectors.

Q3) a) Give an account on preparation and sterilization of media.

OR

b) Write short notes on:

i) Maintenance of cultures.

ii) Single cell cultures.

Q4) a) Write an essay on applications of animal cell culture.

OR

b) Write short notes on:

i) Culture media.

ii) Growth of cell lines.

Q5) a) Give an account on production of antibiotics.

OR

b) Write short notes on:

i) Enzymes.

ii) Vaccines.

