

(DZOO21)

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M.Sc. DEGREE EXAMINATION, MAY – 2017

Second Year

ZOOLOGY

Animal Physiology

Time : 3 Hours

Maximum Marks : 70

Answer all questions

All questions carry equal marks

Q1) a) Give a detailed account on the digestion and metabolism of proteins.

OR

b) Write short notes on

- i) Vitamins
- ii) Enzymes

Q2) a) Give an account on the respiration and transport of gases in animals.

OR

b) Write short notes on

- i) Circulatory system in animals.
- ii) Respiratory pigments.

Q3) a) Write an essay on comparative account of nervous system in animals.

OR

b) Write short notes on

- i) Nerve impulse
- ii) Nuron

Q4) a) Give a detailed account on types of muscles and their functions.

OR

b) Write short notes on

- i) Muscle contraction
- ii) Role of hormones in reproduction

Q5) a) Give an account on ionic and osmotic balance in animals.

OR

b) Write short notes on

- i) Urine formation
- ii) Excretion

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M.Sc. (Second) DEGREE EXAMINATION, MAY – 2017

Second Year

ZOOLOGY

Aquaculture

Time : 3 Hours

Maximum Marks : 70

All questions are compulsory

All questions carry equal marks

Q1) a) Give an account on criteria for the selection of a species for culture.

OR

- b) Write short notes on
- i) Major carps
 - ii) Culture systems

Q2) a) Give an account on Exotic fishes of India.

OR

- b) Write short notes on
- i) Rearing ponds
 - ii) *Macrobrachium rosenbergii*

Q3) a) Give an account on the culture of *chanos chanos*

OR

- b) Write short notes on
- i) Air breathing fishes
 - ii) Culture of sea bass

Q4) a) Give an account on the culture of edible oysters.

OR

- b) Write short notes on
- i) Sea weeds
 - ii) Pearl oysters

Q5) a) Write an essay on fish diseases in culture ponds.

OR

- b) Write short notes on
- i) Ornamental fish breeding
 - ii) Androgenesis



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M.Sc. (Second) DEGREE EXAMINATION, MAY – 2017

Second Year

ZOOLOGY

Parasitology and Immunology

Time : 3 Hours

Maximum Marks : 70

Q1) a) Give a detailed account on morphology. life cycle of Balantidium coli

OR

- b) Write short notes on
- Symbiotic relationship
 - Entamoeba histolytica

Q2) a) Describe the biology, life cycle and portals of entry of Echinococcus granulosus.

OR

- b) Write short notes on
- Diphyllobothrium latum
 - Schistosoma mansoni

Q3) a) Give an account life cycle and nature of infection of Wuchereria bancrofti

OR

- b) Write short notes on
- Dracunculus medinensis
 - Trichuris trichiura

Q4) a) Give an account on the introduction and overview of immunology.

OR

- b) Write short notes on
- Antigens
 - Natural immunity

Q5) a) Give a detailed account on the cells of immune system.

OR

- b) Write short notes on
- Antibodies
 - The coomb's test



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M.Sc. DEGREE EXAMINATION, MAY – 2017

(Second Year)

ZOOLOGY

Biotechnology

Time : 3 Hours

Maximum Marks : 70

Answer all questions

All questions carry equal marks.

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

OR

b) Write short notes on :

- i) Different fields of biotechnology.
- ii) Application of biotechnology.

Q2) a) Give an account on vectors used in genetic engineering.

OR

b) Write short notes on :

- i) Applications of r – DNA technology.
- ii) Role of enzymes in gene cloning.

Q3) a) Enumerate the preparation and sterilization of media.

OR

b) Write short notes on :

- i) Callus culture
- ii) Maintenance of cultures

Q4) a) Give an account on the growth of animal cell lines in laboratory.

OR

b) Write short notes on :

- i) Animal tissue culture techniques.
- ii) Applications of animal cell culture.

Q5) a) Give a detailed account on the industrial production of enzymes.

OR

b) Write short notes on :

- i) Antibiotics production
- ii) Industrial production of vaccines.