

(DZOO21)

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M.Sc. (Second) DEGREE EXAMINATION, MAY – 2018

ZOOLOGY

Second Year

Animal Physiology

Time : 3 Hours

Maximum Marks : 70

Q1) a) Give an account on significance of vitamins in metabolism.

OR

b) Write short notes on

i) Minerals

ii) Lipids

Q2) a) Give an account on physiology of heart.

OR

b) Write short notes on

i) Transport of gases

ii) Respiratory pigments

Q3) a) Give an account on nervous system in animal groups.

OR

b) Write short notes on

i) Nerve impulse

ii) Brain

Q4) a) Give an account on excretion in animals.

OR

b) Write short notes on

i) Ionic balance

ii) Formation of urine

Q5) a) Give an account on theories of muscle contraction.

OR

b) Write short notes on

i) Hormones

ii) Functions of muscles.



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M.Sc. (Second) DEGREE EXAMINATION, MAY – 2018

Second Year

ZOOLOGY

Aquaculture

Time : 3 Hours

Maximum Marks : 70

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

OR

- b) Write short notes on
- i) Intensive culture
 - ii) Bundh breeding

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

OR

- b) Write short notes on
- i) Nursery pond
 - ii) *Macrobrachium rosenbergii*.

Q3) a) Give an account on culture of air breathing fishes.

OR

- b) Write short notes on
- i) *Chanos chanos*
 - ii) *Penaeus mondon*

Q4) a) Give an account on sewage – fed fish culture.

OR

b) Write short notes on

i) Edible oysters

ii) Sea weeds

Q5) a) Write an account on common diseases in culture ponds.

OR

b) Write short notes on

i) Gynogenesis

ii) Ornamental fish



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M.Sc. (Second) DEGREE EXAMINATION, MAY – 2018

ZOOLOGY

Second Year

Parasitology and Immunology

Time : 3 Hours

Maximum Marks : 70

Q1) a) Give an account on morphology and life cycle of *Trypanosoma gambiense*.

OR

b) Write short notes on

- i) *Balantidium coli*
- ii) Symbiotic relationship

Q2) a) Describe the biology, Life cycle and Portals of entry of *Schistosoma mansoni*.

OR

b) Write short notes on

- i) *Diphyllobothrium latum*.
- ii) *Opisthorchis sinensis*

Q3) a) Give an account on biology, life cycle and nature infection of *Ancylosoma duodenale*.

OR

b) Write short notes on

- i) Nature of infection of *Dracunculus medinensis*
- ii) Life cycle of *Trichuris trichura*.

Q4) a) Give an account on structure and major class of antigens.

OR

b) Write short notes on

i) Natural immunity

ii) Acquired immunity

Q5) a) Give an account on structure and properties of IgG.

OR

b) Write short notes on

i) Coomb's test

ii) Organs of immune system



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M.Sc. (Second) DEGREE EXAMINATION, MAY – 2018

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 importance and application of biotechnology.

OR

b) Write short notes on

i) Definition of biotechnology

ii) Biotechnology in engineering

Q2) a) What is the role of enzymes in gene cloning? Explain.

OR

b) Write short notes on

i) Vectors

ii) r - DNA

Q3) a) Give an account on initiation and maintenance of cultures.

OR

b) Write short notes on

i) Sterilization of media

ii) Cell suspension

Q4) a) Describe the techniques of animal tissue culture.

OR

b) Write short notes on

i) Culture media

ii) Growth of animal cell lines

Q5) a) Give an account on production of enzymes and other chemicals.

OR

b) Write short notes on

i) Antibiotics

ii) Vaccines

