

Reg. No. :

D 2169

Q.P. Code : [D 09 PZO 06]

(For the candidates admitted from 2009 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

Second Year

Zoology

ANIMAL PHYSIOLOGY AND ENDOCRINOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

(5 × 20 = 100)

1. What are major nutritive components? Explain their daily requirements?
2. Write an essay on absorption of digested food in man.
3. What is blood? Give a detailed account on blood group in man
4. Write short note on :
 - (a) Functions of hormones
 - (b) Structure of mammalian heart

5. Write an essay on functional morphology of male reproductive system and accessory Sex glands associated with it.
 6. What is blood pressure? Explain the mechanism of its regulation.
 7. Describe the structure and functions of thyroid gland.
 8. Describe the acid — base regulatory mechanism of human kidney.
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M.Sc. DEGREE EXAMINATION, MAY 2014.

Second Year

Part III – Zoology

MICROBIOLOGY AND IMMUNOLOGY

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

(5 × 20 = 100 marks)

1. Discuss about the Structure of Viruses.
2. Write an essay on the Spoilage of Dairy Products.
3. Discuss the common features to all specific immune responses.
4. Describe the functions of secondary lymphoid organs.
5. Give an account on :
 - (a) Types of T cells (10)
 - (b) Eletro Immuno diffusion (EID). (10)

6. Explain about the various types of immunological rejections.
 7. Write an essay on Autoimmune diseases.
 8. Explain the various types of ELISA as you have studied.
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Q.P. Code : [D 09 PZO 08]

(For the candidates admitted from 2009 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

Second Year

Zoology

EVOLUTION AND PHYLOGENY

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

(5 × 20 = 100)

1. What is coelem? Explain the theories of origin of coelem.
2. Give a detailed account on macro and micro evolution.
3. What is adaptive radiation? Explain it through Darwin's Finches.
4. Explain in detail about the polymorphism in siphonophora.
5. What are the larval forms of echinodermata? write their significance.

6. Enumerate the general characters and affinities of Hemichordata
 7. Write an essay on ecological polymorphism.
 8. Give a detailed account on origin of mammals.
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Reg. No. :

D 1122

Q.P. Code : [D 09 PZO 09]

(For the candidates admitted from 2009 onwards)

M.Sc. DEGREE EXAMINATION, ~~DECEMBER 2013~~ APR 2014

Second Year

Part III — Zoology

DEVELOPMENTAL BIOLOGY AND HUMAN
WELFARE

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

Draw a labelled diagram wherever necessary.

Underline the important points.

1. Write a detailed note on the growth of Oocyte.
2. Give an account on the Acrosome reaction.
3. Explain the following:
 - (a) Activation of egg
 - (b) Origin of primordial germ cells in mammals.
4. What is cleavage? Explain various patterns of cleavage in the vertebrates.

5. What is organizer? Describe neural induction experiment with suitable illustrations.
 6. What is metamorphosis? Write detailed account on the types of metamorphosis in insects.
 7. Describe the main causes of sterility in man and women add various tests for detecting sterility.
 8. Describe the technique of production of test tube babies and add its merits and demerits.
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Reg. No. :

D 2172

Q.P. Code : [D 09 PZO 10]

(For the candidates admitted from 2009 onwards)

M.Sc. DEGREE EXAMINATION, MAY 2014.

Second Year

Zoology

BIOTECHNOLOGY AND BIOINFORMATICS

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

(5 × 20 = 100)

1. What is culture media? Add detailed notes on different characteristics and maintenance of cell lines with suitable examples and illustrations.
2. Describe the principle and applications of gene gun and electroporation techniques.
3. Write detailed essay on the role of biotechnology in integrated pest management with reference to *Bacillus thuringiensis* and Baculovirus
4. Elaborate the biotechnological approaches adopted in the production of human interferon with examples and illustrations.

5. Define bioinformatics and what are the areas in which bioinformatics is applied? Add notes on the types, objectives, properties and applications of biological databases.
 6. What are secondary databases? Comment on any three secondary databases, which you have studied.
 7. What is 'general purpose genomic database'? Add notes on the structure of comparative genomic database. Give an account on any two comparative genomic analysis package.
 8. Explain the diagnostic methods used to detect the genetic disorder at early stages and add notes on the proteomics of multi protein complexes
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