

1/EH-63 (i) (Syllabus-2015)

2019

(October)

ZOOLOGY
(Elective/Honours)

FIRST PAPER
(Systematics, Animal Diversity and Evolution)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. 1 which is compulsory and
any **four** from the rest

1. Write in brief on any *three* of the following :

4×3=12

- (a) Six-kingdom classification
- (b) Canal system of sycon
- (c) Respiratory system in cockroach
- (d) Salient features of amphioxus
- (e) Geological timescale

20D/32

(Turn Over)

2. What are the general characteristics of chordates? Highlight the diagnostic features of the class Mammalia. 5+6=11
3. Describe the life cycle of *Entamoeba histolytica*. Add a note on its pathogenicity. 7+4=11
4. Describe the structure of water vascular system of *Asterias* with suitable diagram. 9+2=11
5. With the help of suitable diagram, describe the digestive system of rabbit. 2+9=11
6. Explain Charles Darwin's theory of Evolution and the deductions that lead to the theory of natural selection. 7+4=11
7. (a) Give an account of the aquatic respiration in *Pila* with suitable diagram. 5+2=7
(b) Describe the salient features of *Balanoglossus*. 4
8. Write short notes on any two of the following : 5½×2=11
 - (a) Taxonomic hierarchy
 - (b) Pathogenicity of *Ascaris lumbricoides*
 - (c) Paleontological evidences of evolution

ZOO-ELH—101 (A) (Syllabus-2015)

2015

(October)

ZOOLOGY

(Elective/Honours)

FIRST PAPER

(Systematics, Animal Diversity and Evolution)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** and *any four* from the rest

1. Write, in brief, on any *three* of the following :

4×3=12

- (a) Taxonomic hierarchy
- (b) Pathogenicity of *Plasmodium vivax*
- (c) Digestive system of leech
- (d) External morphology of *Balanoglossus*
- (e) Lamarckism

2. Write down the salient features of phylum Chordata. Classify phylum Chordata up to classes giving diagnostic features and suitable examples. $4+7=11$
3. Give an account of the canal system in *Sycon* with suitable diagram. $7+4=11$
4. Describe the structure and function of water-vascular system of *Asterias* with suitable diagrams. $7+4=11$
5. Describe the digestive system of rabbit. Provide a well-labelled diagram of the same. $7+4=11$
6. (a) Discuss the theory of natural selection. 7
(b) Write a note on anatomical evidences of evolution. 4
7. Describe the life cycle and pathogenicity of *Ascaris*. $7+4=11$
8. Write short notes on any two of the following : $5\frac{1}{2}\times 2=11$
- (a) Respiratory organs in *Labeo*
(b) Salient features of *Amphioxus*
(c) Six kingdom classification

1/EH—63 (i) (Syllabus—2015)

2016

(October)

ZOOLOGY

(Elective/Honours)

(Systematics, Animal Diversity and Evolution)

Marks : 56

Time : 3 hours

The figures in the margin indicate full marks
for the questions

Answer Question No. 1 and any **four** from the rest

1. Write in brief on any *three* of the following : 4×3=12
- (a) Minor phyla
 - (b) Reproduction in *Obelia*
 - (c) Oparin-Haldane theory
 - (d) External morphology of *Petromyzon*
 - (e) Feeding and digestion in leech
2. (a) Classify phylum Arthropoda up to classes giving examples. 7

D7/36

(Turn Over)

(2)

- (b) Give the distinctive features of class Mammalia. 4
3. Describe the life cycle of *Plasmodium vivax*. Suggest measures to control the spread of malaria. 9+2=11
4. With the help of a suitable diagram, describe the digestive system of *Pila*. Add a note on its feeding mechanism. (2+6)+3=11
5. Describe the organs and mechanism of respiration in fish *Labeo*. Draw a diagram to illustrate your answer. (3+6)+2=11
6. What is evolution? Discuss the anatomical and embryological evidences of evolution. 1+(5+5)=11
7. Describe the male and female reproductive systems of rabbit with the help of suitable diagrams. 4+4+3=11
8. Write short notes on any *two* of the following : 5½×2=11
- (a) Conjugation in *Paramecium*
 - (b) Tracheal respiration in cockroach
 - (c) Skeletal system of *Sycon*

D7—3100/36

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1/EH—63 (i) (Syllabus—2015)

2017

(October)

ZOOLOGY

(Elective/Honours)

FIRST PAPER

(Systematics, Animal Diversity and Evolution)

Marks : 56

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

Answer Question No. **1** and *any four* from the rest

1. Write in brief on any *three* of the following :

4×3=12

- (a) Taxonomic hierarchy
- (b) Pathogenicity of *Entamoeba histolytica*
- (c) Digestive system of *Pila*
- (d) Respiratory system of *Petromyzon*
- (e) Lamarckism

2. (a) Write down the characteristics of kingdom Animalia. Highlight the diagnostic features of phylum Porifera. $4+3=7$
- (b) Classify phylum Annelida up to classes. 4
3. Give an account of the life cycle of *Ascaris lumbricoides* and its pathogenicity. $7+4=11$
4. Describe the canal system in *Sycon* with suitable diagrams. 11
5. Explain with the help of suitable diagrams the water vascular system in *Asterias*. 11
6. Describe the circulatory system of rabbit with suitable diagrams. 11
7. Explain Charles Darwin's key observations and the deductions that lead to the theory of natural selection. $7+4=11$
8. Write short notes on any two of the following: $5\frac{1}{2}\times 2=11$
- (a) Binomial nomenclature
- (b) Geological timescale
- (c) Conjugation in *Paramecium*

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2018

(October)

ZOOLOGY

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FIRST PAPER

(Systematics, Animal Diversity and Evolution)

Marks : 56

Time : 3 hours

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for the questions*

Answer Question No. **1** and *any four* from the rest

1. Briefly describe any *three* of the following :

4×3=12

- (a) Binomial nomenclature
- (b) Structure of *Obelia*
- (c) Respiratory system of *Pila*
- (d) Anatomical evidences of evolution
- (e) Digestive system of rabbit

2. (a) Define taxonomic hierarchy. 1
- (b) Write three main characteristics and give two examples each for phylum Arthropoda, Mollusca and classes Amphibia, Reptilia and Mammalia. $2 \times 5 = 10$
3. Give an account of conjugation in *Paramecium* and discuss its significance. $8 + 3 = 11$
4. Describe the urinogenital system of leech with the help of a diagram. $8 + 3 = 11$
5. Describe the organs and mechanism of respiration in fish *Labeo*. Draw a labelled diagram to illustrate your answer. $2 + 6 + 3 = 11$
6. (a) Discuss the theory of natural selection. 7
- (b) Write a note on the embryological evidences of evolution. 4
7. What do you understand by the term 'intermediate host'? Describe the life cycle of *Plasmodium vivax* with special reference to intermediate host. $2 + 9 = 11$
8. Write short notes on any two of the following : $5\frac{1}{2} \times 2 = 11$
- (a) Salient features of *Amphioxus*
- (b) Tracheal respiration in cockroach
- (c) Six-kingdom classification

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