

This question paper contains 2 printed pages]

V—86—2017

FACULTY OF SCIENCE

B.Sc. (Fifth Semester) EXAMINATION

OCTOBER/NOVEMBER, 2017

ZOOLOGY

Paper XII

(Ecology and Zoogeography)

(Wednesday, 15-11-2017)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) All questions are compulsory.

(ii) Draw well labelled diagrams wherever necessary.

(iii) All questions carry equal marks.

1. Write notes on any four of the following :

8

(a) Lithosphere

(b) Mortality

(c) Nuclear Power

(d) Aims of Wildlife conservation

(e) Decomposers.

2. Write notes on any two of the following :

8

(a) Desert ecosystem

(b) Oxygen cycle

(c) Biotic components of ecosystem

(d) Xerarch-ecological succession.

3. Write notes on any two of the following :

8

(a) Natality

P.T.O.

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- (b) Mutualism
 - (c) Age distribution
 - (d) Parasitism.
4. Write notes on any *two* of the following : 8
- (a) Sources and effects of water pollution
 - (b) Fossil fuels
 - (c) Sources and control of air pollution
 - (d) Limitations of non-conventional energy resources.
5. Describe in detail any *one* of the following : 8
- (a) Ecological adaptations of animals in desert habitat.
 - (b) Explain measures to protect endangered species.

This question paper contains 2 printed pages]

V-106-2017

FACULTY OF SCIENCE

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

OCTOBER-NOVEMBER, 2017

ZOOLOGY

Paper III (B)

[Applied Parasitology—I (Parasitic Protozoa and Platyhelminthes)]

(Friday, 17-11-2017)

Time : 09.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. — (A) Attempt ALL questions.

(B) ALL questions carry equal marks.

(C) Illustrate your answers with suitable labelled diagrams wherever necessary.

1. Write notes on any four of the following : 8
 - (a) Vector
 - (b) Obligate parasite
 - (c) Intermediate host
 - (d) Mehl's gland
 - (e) Host specificity
 - (f) Cysticercus
2. Write notes on any two of the following : 8
 - (a) Morphology of *Trypanosoma gambiense*
 - (b) Life cycle and pathogenicity of *Giardia intestinalis*
 - (c) General organization of parasitic protozoa
 - (d) Morphology of *Trichomonas vaginalis*
3. Write notes on any two of the following : 8
 - (a) Morphology of *Balantidium coli*
 - (b) Life cycle of *Entamoeba histolytica*

P.T.O.

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(2)

V-106-2017

- (c) Morphology of *Eimeria tenella*
(d) Life cycle of *Entamoeba coli*
4. Write notes on any two of the following : 8
- (a) General organization of cestodes
(b) Reproductive organs of trematodes
(c) Morphology of *Taenia Saginata*
(d) Hydatid cyst.
5. Write long answer on any one of the following : 8
- (a) Describe morphology, life cycle, pathogenicity and control measures of *Paragonimus westermani*.
(b) Give an account of parasitic adaptation with special reference to cestodes.

This question paper contains 2 printed pages]

AO—85—2018

FACULTY OF SCIENCE

B.Sc. (Fifth Semester) EXAMINATION

MARCH/APRIL, 2018

ZOOLOGY

Paper XII

(Ecology and Zoogeography)

(Saturday, 31-3-2018)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) All questions are compulsory

(ii) Draw well labelled diagrams whenever necessary.

(iii) All questions carry equal marks.

1. Write notes on any *four* of the following : 8
 - (a) Producers
 - (b) Mortality
 - (c) Wind energy
 - (d) Australian realm
 - (e) Lethosphere
 - (f) Fossil fuels.
2. Write notes on any *two* of the following : 8
 - (a) Pond ecosystem
 - (b) Carbon cycle
 - (c) Hydrarch
 - (d) Temperature as abiotic component
3. Write notes on any *two* of the following : 8
 - (a) Population growth form
 - (b) Mutualism
 - (c) Age distribution
 - (d) Competition

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AO—85—2018

4. Write notes on any *two* of the following : 8
- (a) Water pollution (Sources and effects)
 - (b) Advantages and disadvantages of conventional energy resources.
 - (c) Sources and effects of noise pollution
 - (d) Solar energy and Tidal energy.
5. Describe in detail any *one* of the following : 8
- (a) What is wildlife ? Explain aims and necessity of wildlife conservation.
 - (b) Give an account on ecological adaptations of animals in aquatic habitat.

AO—85—2018

2

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This question paper contains 2 printed pages]

AO—103—2018

FACULTY OF SCIENCE

B.Sc. (Fifth Semester) EXAMINATION

MARCH/APRIL, 2018

ZOOLOGY

Paper XIII B

[Applied Parasitology (Parasitic Protozoa and Platyhelminthes—I)]

(Tuesday, 3-4-2018)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt All questions.

(ii) All questions carry equal marks.

(iii) Draw well-labelled diagrams wherever necessary.

1. Write notes on any *four* of the following : 8
 - (a) Host parasite
 - (b) Endoparasite
 - (c) Gynaecophoric canal
 - (d) *Cesticercus bovis*
 - (e) Definitive host
 - (f) *Cercaria larva*.
2. Write notes on any *two* of the following : 8
 - (a) Classification of parasitic protozoa
 - (b) Life cycle of *Trypanosoma gambiense*
 - (c) Morphology, pathogenicity and control measures of *Giardia intestinalis*
 - (d) Pathogenicity and control measures of *Trichomonas vaginalis*.
3. Write notes on any *two* of the following : 8
 - (a) Structure of *Balantidium coli*
 - (b) Encystment of *Entamoeba coli*
 - (c) Pathogenicity and control measures of *Entamoeba histolytica*
 - (d) Life cycle of *Eimeria tenella*.

P.T.O.

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(2)

AO—103—2018

4. Write notes on any *two* of the following : 8*
- (a) General organization of Trematodes and Cestodes
 - (b) Pathogenicity and control measures of *Taenia saginata*
 - (c) Pathogenicity and control measures of *Echinococcus granulosus*
 - (d) Comparative account of Reproductive organs of Trematodes and Cestodes.
5. Write long answer any *one* of the following : 8
- (a) Structure, life cycle, pathogenicity and control measures of *Gastrodiscoides hominis*
 - (b) Describe the morphological parasitic adaptations in Trematodes and Cestodes.

AO—103—2018

2

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This question paper contains 2 printed pages]

W—98—2018

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

OCTOBER/NOVEMBER, 2018

(CBCS Pattern)

ZOOLOGY

Paper XII

(Ecology and Zoogeography)

(Monday, 22-10-2018)

Time : 10.00 a.m. to 12.00 noon

Time—Two Hours

Maximum Marks—40

N.B. :— (i) Attempt All questions.

(ii) All questions carry equal marks.

(iii) Illustrate your answers with suitable diagrams wherever necessary.

1. Attempt any *four* of the following :

8

- (a) Food chain
- (b) Population density
- (c) Parasitism
- (d) Tidal energy
- (e) What is wildlife ?
- (f) Oriental realm.

2. Attempt any *two* of the following :

8

- (a) Sulphur cycle
- (b) Xearch
- (c) Commensalism.

3. Attempt any *one* of the following :

8

- (a) Explain in detail desert ecosystem.
- (b) Explain in detail population dispersal and population growth form.

P.T.O.

4. Attempt any *two* of the following : 8
- (a) Describe in detail sources and effects of Noise Pollution.
 - (b) Aquatic adaptations.
 - (c) Physical features and fauna of Australian realm.
5. Attempt any *one* of the following : 8
- (a) Describe the conventional energy resources and add a note on their limitations.
 - (b) Explain in detail wildlife in India and add a note on aims and necessity of wildlife conservation.

Exam

This question paper contains 2 printed pages]

W—119—2018

FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. (Third Year) (Fifth Semester) EXAMINATION

OCTOBER/NOVEMBER, 2018

(CBCS Pattern)

ZOOLOGY

Paper XIII (B) (DSEZ—I)

(Applied Parasitology—I)

(Parasitic Protozoa and Platyhelminthes)

(Wednesday, 24-10-2018)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

- N.B. :— (i) Attempt All questions.
(ii) All questions carry equal marks.
(iii) Illustrate your answers with suitable labelled diagrams wherever necessary.

1. Attempt any *four* of the following : 8
(a) Parasitism
(b) African sleeping sickness
(c) Laurer's canal
(d) *Cysticercus bovis*
(e) Ectoparasite
(f) Miracidium larva
2. Attempt any *two* of the following : 8
(a) Morphology of *Entamoeba histolytica*
(b) Life cycle of *Balantidium coli*
(c) Morphology of *Trypanosoma gambiense*
3. Attempt any *one* of the following : 8
(a) Describe the life cycle of *Plasmodium vivax* in man.
(b) Explain the morphology, pathogenicity, prophylaxis and treatment of *Trichomonas vaginalis*.

P.T.O.

WT

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W—119—2018

4. Attempt any *two* of the following : 8
- (a) List cycle of *Taenia solium*
 - (b) Structure of *Gastrodiscoides hominis*
 - (c) Life cycle of *Paragonimus westermani*
5. Attempt any *one* of the following : 8
- (a) Describe the morphology, pathogenicity and treatment of *Schistosoma haematobium*.
 - (b) Explain the life cycle, pathogenicity and treatment of *Echinococcus granulosus*.

W—119—2018

2

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B—113—2019

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

MARCH/APRIL, 2019

(CBCS Pattern)

ZOOLOGY

Paper-XII (DSEZ-I)

(Ecology and Zoo-geography)

(Monday, 01-4-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt All questions.

(ii) All questions carry equal marks.

(iii) Illustrate your answers with suitable diagrams wherever necessary.

1. Attempt any four of the following : 8

(a) Food chain.

(b) Natality.

(c) Competition.

(d) Solar energy.

(e) Effects of Noise Pollution.

(f) Australian realm.

2. Attempt any two of the following : 8

(a) Ecological Pyramids.

(b) Hydrosphere.

(c) Population growth form.

P.T.O.

3. Attempt any *one* of the following : 8
- (a) Describe in detail Aquatic ecosystem with suitable example.
 - (b) Describe population density and population dispersal.
4. Attempt any *two* of the following : 8
- (a) Sources, effects and control of Air Pollution.
 - (b) Aquatic Adaptations.
 - (c) National Parks in India.
5. Attempt any *one* of the following : 8
- (a) Conventional energy resources.
 - (b) What is Wildlife ? Explain in detail aims and necessity of wildlife conservation.

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X—47—2019

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Third Year) (Fifth Semester) (Regular) EXAMINATION

OCTOBER/NOVEMBER, 2019

ZOOLOGY

Paper XII

(Ecology and Zoogeography)

(Tuesday, 3-12-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) Illustrate your answers with suitable labelled diagrams, wherever necessary.

1. What is ecosystem ? Describe in detail aquatic ecosystem with suitable example. 15

Or

(a) Population growth form. 8

(b) Competition. 7

2. What is Pollution ? Describe in detail sources, effects and control of water pollution. 15

Or

(a) Aims and necessity of wildlife conservation. 8

(b) Physical features and fauna of oriental realm. 7

3. Write notes on any two of the following : 10

(a) Hydrosphere

(b) Population density

(c) Sources of Noise pollution

(d) Desert adaptations.

X—47—2019

1

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X—48—2019

FACULTY OF SCIENCE

B.Sc. (Third Year) (Fifth Semester) (Regular) EXAMINATION

OCTOBER/NOVEMBER, 2019

(CBCS Pattern)

ZOOLOGY

Paper XIII

(Pisciculture)

(Tuesday, 3-12-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) Illustrate your answers with suitable labelled diagrams, wherever necessary.

1. Describe the preparation and management of nursery pond. 15

Or

(a) Bundh breeding. 8

(b) Transportation of fish seed. 7

2. Describe the bacterial and fungal diseases in fishes. 15

Or

(a) Causes of fish spoilage. 8

(b) Freezing, smoking and drying methods of fish preservation. 7

3. Attempt any two of the four (each of 5 marks) 10

(a) Topography and soil types

(b) Stripping Method

(c) Light Fishing

(d) Fish Oil

X—48—2019

1

This question paper contains 2 printed pages]

Y—113—2019

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Third Year) (Fifth Semester) (Backlog) EXAMINATION

NOVEMBER/DECEMBER, 2019

(CBCS Pattern)

ZOOLOGY

Paper-XII

(Ecology and Zoogeography)

(Friday, 20-12-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) All questions carry equal marks.

(iii) Illustrate your answers with suitable diagrams wherever necessary.

1. Attempt any *four* of the following : 8
- (a) Decomposers
 - (b) Xerarch
 - (c) Population density
 - (d) Parasitism
 - (e) Nuclear power
 - (f) Desert adaptations.
2. Attempt any *two* of the following : 8
- (a) Sulphur cycle
 - (b) Ecological pyramids
 - (c) Population growth form
 - (d) Mutualism.

P.T.O.

3. Attempt any *one* of the following : 8
- (a) Describe in detail aquatic ecosystem with suitable example.
 - (b) Describe in detail age distribution in population.
4. Attempt any *two* of the following : 8
- (a) Sources and effect of noise pollution
 - (b) Hydel power
 - (c) Volant adaptations.
 - (d) Physical features and fauna of Australian realm.
5. Attempt any *one* of the following : 8
- (a) Non-conventional energy resources.
 - (b) Explain ecological adaptations of animals in aquatic habitat.

CG-11-2020

WINTER EXAM 2020

Subject Name : RB-28_ZOOLOGY - Ecology & Zoogeography- XII
(CBCS)_V_19-03-2021

Date : 19/03/2021

Duration : 60
min.

Instruction / सुचना / :-

- * Follow the detail instructions given on OMR Sheet
- * ओ एम आर वरील सर्व सूचनांचे पालन करावे.

Q.1	152	152	152
Ecology is the study of			
A) Organism at home		C) Study of the inter relationship between organism and environment	
B) Study of organism in relation to their environment		D) All of the above	

Q.2	152	152	152
Basic functional ecological unit is			
A) Ecology		C) Ecosystem	
B) Ethology		D) None of the above	

Q.3	152	152	152
The word ecosystem was coined by			
A) A. V. Humbolt		C) Earnest Haeckel	
B) H. Reiter		D) Arthur Tansely	

Q.4	152	152	152
Biotic factors are			
A) Plants		C) Bacteria	
B) Animals		D) All of the above	

Q.5	152	152	152
The organisms that break up the dead bodies of plants and animals are called as			
A) Decomposers		C) Both (A) and (B)	
B) Reducers		D) None of the above	

Q.6	152	152	152
In a desert ecosystem is a consumer.			
A) Elephant		C) Camel	
B) Rhinoceros		D) Gireff	

Q.7	152	152	152
The sequence of the eaters being eaten is called			
A) Food Chain		C) Food hub	
B) Food web		D) None of these	

Q.8	152	152	152
Following is the correct Food Chain			
A)Phytoplankton → Snakes → Hawk		C)Grass → Mouse → Snake → Hawk	
B)Phytoplankton → Grasshopper → Hawk		D)Hawk → Rat → Snake → Grass	
Q.9	152	152	152
The increase in size of population is called			
A)Population growth		C)Age pyramid	
B)Age distribution		D)Population dispersal	
Q.10	152	152	152
When the pyramid is triangular, then the population is			
A)Declining		C)Stable	
B)Growing		D)None of the above	
Q.11	152	152	152
The cycling of sulphur between biotic and abiotic system is called			
A)Oxygen cycle		C)Phosphorus cycle	
B)Sulphur cycle		D)Carbon cycle	
Q.12	152	152	152
The lowest layer of atmosphere is			
A)Stratosphere		C)Thermosphere	
B)Mesosphere		D)Troposphere	
Q.13	152	152	152
When succession starts in water, it is called			
A)Xerach		C)Hydrach	
B)Xerosere		D)None of the above	
Q.14	152	152	152
Population density is measured by			
A)Sampling method		C)Tagging method	
B)Total count		D)All of the above	
Q.15	152	152	152
The number of individuals dying in a population at a given time is called			
A)Mortality		C)Age distribution	
B)Natality		D)Age pyramid	
Q.16	152	152	152
Movement of individual into or out of the population is called as			
A)Population growth		C)Mortality	
B)Population dispersal		D)Natality	

Q.17 152 152 152
 The increase and decrease in the number of individuals in a population is called as

- A) Population fluctuation C) Population equilibrium
 B) Population dispersal D) Population movement

Q.18 152 152 152
 When the members of the same species are interrelated, the relationship is called

- A) Interspecific C) Extraspecific
 B) Intraspecific D) Euspecific

Q.19 152 152 152
 The relationship of predator and prey is called

- A) Parasitism C) Competition
 B) Mutualism D) Predation

Q.20 152 152 152
 Rivalry between two animals for food is called as

- A) Competition C) Commensalism
 B) Predation D) Mutualism

Q.21 152 152 152
 The pollutants which cannot be decomposed are called

- A) Non-degradable C) Biocompost
 B) Biodegradable D) None of the above

Q.22 152 152 152
 Air pollution creates

- A) Acid rain C) Both (A) and (B)
 B) Stone leprosy D) None of the above

Q.23 152 152 152
 Domestic sewage cause

- A) Air pollution C) Water pollution
 B) Noise pollution D) Sound pollution

Q.24 152 152 152
 Noise is measured by the unit

- A) Hg C) Pb
 B) dB D) None of these

Q.25 152 152 152
 Renewable energy resources

- A) wind energy C) tidal energy
 B) solar energy D) All of the above

Q.26

Tidal energy is used for producing

A) Electricity

B) Nuclear weapons

C) Space crafts

D) Hydropower

152

152

152

Q.27

Wind mills exploit wind energy for producing

A) Submarines

B) Space crafts

C) Electricity

D) None of the above

152

152

152

Q.28

Fossil Fuels are

A) Renewable resources

B) Non renewable resource

C) Both (A) and (B)

D) None of the above

152

152

152

Q.29

In water respiration takes place by

A) Lungs

B) Kidneys

C) Gills

D) None of these

152

152

152

Q.30

Pneumatic bones are found in

A) Fishes

B) Birds

C) Amphibians

D) Reptiles

152

152

152

Q.31

Desert animals excrete nitrogenous waste in the form of

A) Urea

B) Ammonia

C) Uric acid

D) None of the above

152

152

152

Q.32

The uncultivated plants and non-domesticated animals of the nature are called

A) Wild life

B) Wild nature

C) Pet animals

D) None of the above

152

152

152

Q.33

Wild animals can be well protected by establishing

A) Sanctuaries

B) National Parks

C) Both (A) and (B)

D) None of the above

152

152

152

Q.34

Causes of endangering animals are

A) Deforestation

B) Pollution

C) Poaching and hunting

D) All of the above

152

152

152

Q.35

Conservation of wild life provides

s quest

9/2021

<https://srtnun-admin.epariksha.net/InstituteAdmin/Reports/AllQuestions.aspx>

- A]Balance of nature
- B]Genetic resources

- C]Economic value
- D]All of the above

36 152 152 152
 Following is an endangered species of wild life of India
 A]Lion C]Bull
 B]Camel D]Cow

37 152 152 152
 Wildlife protection act in India was implemented in the year
 A]1970 C]1972
 B]1971 D]1973

38 152 152 152
 Asia, Sri Lanka, Burma comes under the region or realm
 A]Australian region C]Ethiopian region
 B]Oriental region D]Nearctic region

39 152 152 152
 Australian region animal is commonly found
 A]Rhinoceros C]Lion
 B]Elephant D]Kangaroo

40 152 152 152
 A bird kiwi is commonly found in the
 A]Oriental realm C]Australian realm
 B]Indian realm D]Ethiopian realm

This question paper contains 2 printed pages]

SB—85—2022

FACULTY OF SCIENCE & TECHNOLOGY

B.Sc. (Fifth Semester) EXAMINATION

(CBCS/New Pattern)

MAY/JUNE, 2022

ZOOLOGY

Paper-XII

(Ecology and Zoogeography)

(Wednesday, 15-06-2022)

Time : 10.00 a.m. to 12.30 p.m.

Time— 2½ Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) Illustrate your answers with suitably labelled diagrams, wherever necessary.

1. What is Ecosystem ? Describe in detail pond ecosystem. 15

Or

Write notes on :

(a) Sources and effect of Water Pollution. 8

(b) Conventional Energy Resources. 7

2. What is biotic interaction ? Describe commensalism and Mutualism with suitable example. 15

Or

Write notes on :

(a) Aims and necessity of wildlife conservation. 8

(b) Aquatic adaptations. 7

P.T.O.

WT

(2)

SB—85—2022

3. Write short notes on (any two) :

10

- (a) Oxygen Cycle
- (b) Natality
- (c) Noise Pollution
- (d) Oriental Relam.

SB—85—2022

2

This question paper contains 2 printed pages]

SB—105—2022

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (Third Year) (Fifth Semester) EXAMINATION

JUNE/JULY, 2022

(CBCS/New Pattern)

ZOOLOGY

Paper XIII

[Applied Zoology (Pisciculture)]

(Friday, 17-6-2022)

Time : 10.00 a.m. to 12.30 p.m.

Time— 2½ Hours

Maximum Marks—40

- N.B :—** (i) Attempt *all* questions
(ii) *All* questions carry equal marks.
(iii) Illustrate your answers with suitably labelled diagrams wherever necessary.

1. Attempt any *four* of the following (each of *two* marks) : 8
- (a) Topography
 - (b) Hatching Hapa
 - (c) Dropsy
 - (d) Light Fishing
 - (e) Aquatic weeds
 - (f) Liming of pond.
2. Attempt any *two* of the following (each of *four* marks) : 8
- (a) Management of Nursery pond
 - (b) Chinese hatchery
 - (c) Transportation of fish seed.

P.T.O.

WT

(2)

SB—105—2022

3. Attempt any *one* of the following (each of *eight* marks) : 8
- (a) Sardine fishery
 - (b) Bombay duck fishery
4. Attempt any *two* of the following (each of *four* marks) : 8
- (a) Describe Crafts Masula, Catamaron.
 - (b) Describe in detail Smoking, Drying, Salting and Canning.
 - (c) Give an account on various fish byproducts.
5. Attempt any *one* of the following (each of *eight* marks) : 8
- (a) Non-parasitic fish diseases
 - (b) Causes of fish spoilage.

SB—105—2022

2

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Hall-02
28

This question paper contains 2 printed pages]

B—105—2019

FACULTY OF SCIENCE

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

MARCH/APRIL 2019

(CBCS Pattern)

ZOOLOGY

Paper XIV

(Ethology, Biometry and Bioinformatics)

(Saturday, 30-3-2019)

Time: 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt All questions,

(ii) All questions carry equal marks.

(iii) Illustrate your answers with suitable diagrams wherever necessary.

1. Attempt any *four* of the following : 8
- (a) Honeybee Queen
 - (b) Reasoning
 - (c) Aggressive mimicry
 - (d) Quantitative data
 - (e) NCBI
 - (f) Search engines.
2. Attempt any *two* of the following : 8
- (a) Habituation
 - (b) Visual communication
 - (c) Protective colouration.
3. Attempt any *one* of the following : 8
- (a) Describe tactile and chemical communication in animals.
 - (b) Describe social behaviour in Honeybees.

P.T.O.

4. Attempt any *two* of the following :

8

- (a) Mode
- (b) Polygon frequency curve
- (c) Internet and its uses.

5. Attempt any *one* of the following :

8

- (a) Describe mean and median as measures of central tendency.
- (b) Describe applications of Bioinformatics.

01

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Y—105—2019

FACULTY OF SCIENCE

B.Sc. (Third Year) (Sixth Semester) (Backlog) EXAMINATION

NOVEMBER/DECEMBER, 2019

(CBCS Pattern)

ZOOLOGY

Paper XIV

(Ethology, Biometry and Bioinformatics)

(Thursday, 19-12-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) Illustrate your answers with suitable diagrams.

(iii) All questions carry equal marks.

1. Attempt any four of the following (2 marks each) :

8

- (a) Honey bee worker**
- (b) Aggressive coloration**
- (c) Median**
- (d) Chronological data**
- (e) World wide web**
- (f) Pub Med**

2. Attempt any two of the following (4 marks each) :

8

- (a) Instincts**
- (b) Chemical communication**
- (c) Protective mimicry**

P.T.O.

3. Write short notes any *two* : 8
- (a) Tactile Communication
 - (b) Visual Communication
 - (c) Conscious Mimicry
 - (d) Warming Colouration
4. Write notes any *two* : 8
- (a) Mean
 - (b) Qualitative Data
 - (c) Polygon Frequency Curve
 - (d) Standard Error
5. Describe in detail any *one* of the following 8
- (a) Define Bioinformatics and write their applications in detail.
 - (b) Internet and its uses.

01

This question paper contains 2 printed pages]

Y—105—2019

FACULTY OF SCIENCE

B.Sc. (Third Year) (Sixth Semester) (Backlog) EXAMINATION

NOVEMBER/DECEMBER, 2019

(CBCS Pattern)

ZOOLOGY

Paper XIV

(Ethology, Biometry and Bioinformatics)

(Thursday, 19-12-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) Illustrate your answers with suitable diagrams.

(iii) All questions carry equal marks.

1. Attempt any *four* of the following (2 marks each) : 8
- (a) Honey bee worker
 - (b) Aggressive coloration
 - (c) Median
 - (d) Chronological data
 - (e) World wide web
 - (f) Pub Med
2. Attempt any *two* of the following (4 marks each) : 8
- (a) Instincts
 - (b) Chemical communication
 - (c) Protective mimicry

P.T.O.

3. Attempt any *one* of the following : 8
- (a) Describe social behavior in honeybees
 - (b) Discuss auditory and tactile communication.
4. Attempt any *two* of the following : 8
- (a) Geographical data
 - (b) Pie diagram
 - (c) Mean.
5. Attempt any *one* of the following : 8
- (a) Describe applications of bioinformatics.
 - (b) Describe graphical representation of data using histograms and polygon frequency curve.

This question paper contains 2 printed pages]

SB—46—2022

FACULTY OF SCIENCE & TECHNOLOGY

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

MAY/JUNE, 2022

(CBCS/New Pattern)

ZOOLOGY

Paper-XIV

(Ethology, Biometry & Bioinformatics)

(Saturday, 11-6-2022)

Time : 10.00 a.m. to 12.30 p.m.

Time— 2½ Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) All questions carry equal marks.

(iii) Illustrate your answers with suitable labelled diagrams wherever necessary.

1. Attempt any four of the following : 8

(a) Instincts

(b) Aggressive Coloration

(c) Qualitative data

(d) Median

(e) NCBI

(f) Histogram.

2. Attempt any two of the following : 8

(a) Tactile Communication

(b) Conditioning

(c) Aggressive Mimicry.

P.T.O.

3. Attempt any *one* of the following : 8
- (a) Describe aggressive mimicry with examples.
 - (b) Discuss learning by Imprinting and Reasoning.
4. Attempt any *two* of the following : 8
- (a) Elaborate about Discontinuous and Continuous Data.
 - (b) Describe the different search engines.
 - (c) Explain about the Pie Diagram and Polygon Frequency Curve.
5. Attempt any *one* of the following : 8
- (a) Discuss Computer and their applications in Biology.
 - (b) Elaborate about Internet and its uses.

This question paper contains 2 printed pages]

W—106—2018

FACULTY OF SCIENCE

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

OCTOBER/NOVEMBER, 2018

ZOOLOGY

Paper XV (B)

(Applied Parasitology—II)

(Parasitic Nematodes and Arthropoda)

(Tuesday, 23-10-2018)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt *All* questions.

(ii) *All* questions carry equal marks.

(iii) Draw suitable diagrams wherever necessary.

1. Write notes on any *four* of the following :

8

(a) Phasmidia

(b) Filariasis

(c) Copulatory bursa

(d) Body louse

(e) Pheromons

(f) Mouthparts of flea

2. Write notes on any *two* of the following :

8

(a) Life cycle of *Ancylostoma duodenale*

(b) General organization of nematodes

(c) Morphology of *Enterobius vermicularis*

(d) Larval forms in nematodes

P.T.O.

3. Write notes on any *two* of the following : 8
- (a) Life cycle of *Wuchereria bancrofti*
 - (b) Parasitic adaptations in nematodes
 - (c) Morphology and pathogenicity of *Trichinella spiralis*
 - (d) Life cycle of *Dracunculus medinensis*
4. Write notes on any *two* of the following : 8
- (a) Life cycle of ticks
 - (b) Morphology of mites
 - (c) Parasitic sandfly and horse-fly
 - (d) *Cimex lecturalis*.
5. Write long answer of any *one* of the following : 8
- (a) Explain the introduction of parasitic insects.
 - (b) Describe the morphology, pathogenicity and control measures of Hymenoptera.

28

This question paper contains 2 printed pages]

B—123—2019

FACULTY OF SCIENCE

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

MARCH/APRIL 2019

(CBCS Pattern)

ZOOLOGY

Paper XV (A)

(Aquaculture)

(Tuesday, 2-4-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt All questions.

(ii) All questions carry equal marks.

(iii) Illustrate your answer with suitable labelled diagrams wherever necessary.

1. Attempt any four of the following :

8

(a) Concept of extensive aquaculture

(b) Use of sewage in fish culture

(c) Role of larvicidal fishes in relation to public health

(d) FSI

(e) Monoculture

(f) Guppy fish.

2. Attempt any two of the following :

8

(a) Fish-cum-pig farming

(b) Domestic sewage

(c) Paddy-cum-fish culture.

P.T.O.

WT

(2)

B—123—2019

3. Attempt any *one* of the following : 8
- (a) Polyculture
 - (b) Cage culture
4. Attempt any *two* of the following : 8
- (a) Advantages and disadvantages of aquatic weeds
 - (b) ICAR
 - (c) Physical properties of water.
5. Attempt any *one* of the following : 8
- (a) Control of aquatic weeds
 - (b) Edible oyster culture.

B—123—2019

2

This question paper contains 2 printed pages]

Y—123—2019

FACULTY OF SCIENCE

B.Sc. (Third Year) (Sixth Semester) (Backlog) EXAMINATION

NOVEMBER/DECEMBER, 2019

(CBCS Pattern)

ZOOLOGY

Paper XV (A)

(Aquaculture)

(Saturday, 21-12-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) All questions carry equal marks.

(iii) Draw well labelled diagrams wherever necessary.

1. Attempt any four of the following :

8

(a) Polyculture

(b) Concept of Intensive Aquaculture

(c) Composition of sewage

(d) Indigenous species

(e) Submerged weeds

(f) ICAR

2. Attempt any two of the following :

8

(a) Paddy cum fish culture

(b) Cage culture

(c) Industrial effluents

P.T.O.

3. Attempt any *one* of the following : 8
- (a) Fish cum pig farming
 - (b) Domestic and Agricultural Sewage
4. Attempt any *two* of the following : 8
- (a) Biological properties of water
 - (b) Chemical weed control
 - (c) Pearl oyster culture
5. Attempt any *one* of the following : 8
- (a) Chemical properties of water
 - (b) Types of Aquatic weeds with the advantages and disadvantages of Aquatic weeds.

This question paper contains 2 printed pages|

Y—127—2019

FACULTY OF SCIENCE

B.Sc. (Third Year) (Sixth Semester) (Backlog) EXAMINATION

NOVEMBER/DECEMBER, 2019

(CGPA Pattern)

ZOOLOGY

Paper XV (A)

(Pisciculture-II)

(Saturday, 21-12-2019)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

N.B. :— (i) Attempt all questions.

(ii) All questions carry equal marks.

(iii) Draw well labelled diagrams wherever necessary.

1. Write notes on any *four* of the following : 8
- (a) Water supply
 - (b) Bundh Breeding
 - (c) Gill net
 - (d) Causes of fish spoilage
 - (e) Catla-catla
 - (f) Dropsy
2. Write notes on any *two* of the following : 8
- (a) Management of Nursery pond
 - (b) Management of Stocking pond
 - (c) Preparation and Management of Rearing pond
 - (d) Lay-out of fish farm.

P.T.O.



WT

(2)

Y-127-2019

3. Write notes on any *two* of the following : 8
- (a) Biology of Grass carp
 - (b) Techniques of Induced breeding
 - (c) Chinese hatchery
 - (d) Transportation of fish seed and brooders.
4. Write notes on any *two* of the following : 8
- (a) 'Masula' and 'Catamaran'
 - (b) Electrical fishing
 - (c) Symptoms and treatment of costiasis
 - (d) Acidosis and Alkalosis.
5. Attempt any *one* of the following : 8
- (a) Describe in detail chilling, freezing, smoking and salting methods of fish preservation
 - (b) Give an account of various fish by-products.

Y-127-2019

2