

Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY

FACULTY OF SCIENCE

B. Sc. Third Year Practical Examination

Zoology – Paper – XII

ECOLOGY AND EVOLUTION (Compulsory)

Time: 4 Hrs.

Marks: 100

Centre:

Date:

Batch No.

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| Q. 1. Identify and comment on the adaptive modification in feet of birds and in mouth parts of insects. (Spot 1 to 5)
(2 from Birds / 3 from insects) | 15 |
| Q. 2. Identify the spots (1 to 3) with evolutionary and ecological characters. | 15 |
| Q. 3. Determine the percentage of O ₂ / CO ₂ from given water sample. | 20 |
| Q. 4. Determine the Salinity / Chlorinity / Alklnity from the given water sample. | 20 |
| Q. 5. Submission of project Report on Pond Ecosystem and its Population density. | 15 |
| Q. 6. Record Book. | 10 |
| Q. 7. Viva – voce. | 05 |

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B. Sc. Third Year Practical Examination

Zoology – Paper – XI - A

PISCICULTURE AND AQUARIUM KEEPING (Optional)

Time: 4 Hrs.

Marks: 100

Centre:

Date:

Batch No.

- Q. 1. Dissect so as to expose 13
System and leave a labelled diagram.
- Q. 2. Calculation of pH of water / soil with the help of pH meter. 10
or
Morphometric measurement of fish.
- Q. 3. Determination of fecundity of any local fish. 10
- Q. 4. Identify and describe given spots 1- 4 (Fry fingerlings and Planktons). 12
- Q. 5. Identify given spots 1 – 10 as per instruction. 30
(2 food fishes, 1 exotic fish, 2 predatory fishes and 1 each form the following : aquatic insects, weeds, ornamental fish, aquarium tool, fish pathogen).
- Q. 6. Submission of project Report of Fauna of nearest water body. 10
- Q. 7. Record Book. 10
- Q. 8. Viva - Voce. 5

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B. Sc. Third Year Practical Examination

Zoology – Paper – XI - B

ECONOMIC ENTOMOLOGY AND PEST MANAGEMENT (Optional)

Time: 4 Hrs.

Marks: 100

Centre:

Date:

Batch No.

- Q. 1. Dissect _____ so as to expose _____ 20
System. Leave a labelled diagram of the same.
- Q. 2. Dissect and mount the mouth parts of the give insect. 15
Leave a labelled diagram of the same.
- Q. 3. Identify and classify spots 1-5 giving reasons. 20
(Disease carrying insects, pest of cattle, domestic insect,
parasite and predator at least one each.)
- Q. 4. Identify and classify spots 1 – 5 giving reasons. 20
(Major pests, stored pest products, household pests and plant
Protection appliance at least 1 each)
- Q. 5. Submission (Collection and field Report) 10
- Q. 6. Record Book. 10
- Q. 7. Viva – Voce. 5

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B. Sc. Third Year Practical Examination

Zoology – Paper – XI - C

AQUACULTURE AND TOXICOLOGY (Optional)

Time: 4 Hrs.

Marks: 100

Centre:

Date:

Batch No.

Q. 1. Classify and identify specimen 1 – 5 comment on its Aquaculture importance. 15

Q. 2. Identify the feeding habit of the fish based on gut analysis. 20

Q. 3. Determine the toxicity (LC 50 / LD 50) of a pesticide. Comment on its effect. 20

Q. 4. Estimate quantitatively the pesticide residue in vegetable by titration / calorimetric method. 20

OR

Identify the histopathological slides. (Spot 1 to 5)

Q. 5. Project Report. _____ 10

Q. 6. Record Book. _____ 10

Q. 7. Viva – Voce. _____ 5

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B. Sc. Third Year Practical Examination

Zoology – Paper – XI - D

VECTOR MANAGEMENT AND ECO – TOXICOLOGY (Optional)

Time: 4 Hrs.

Marks: 100

Centre:

Date:

Batch No.

- Q. 1. Preparation and identification of different vectors giving reasons. 5
- Q. 2. Dissect and mount the mouth parts of the given insect. 10
- Q. 3. Determine the toxicity (LC 50 / LD 50) of a pesticide. 20
Comment on its effect.
- Q. 4. Identify the histopathological slides. (Any three) 15
- Q. 5. Estimate quantitatively the pesticide residue 15
in industrial waste.
- OR
- Identify the toxicants (at least Three)
- Q. 6. Project Report. 10
- Q. 7. Record Book. 10
- Q. 8. Viva – Voce. 5

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Dr. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY
FACULTY OF SCIENCE
B. Sc. Third Year Practical Examination
Zoology – Paper – XI - E
COMPUTER APPLICATION AND MEDICAL LABORATORY
TECHNOLOGY (Optional)

Time: 4 Hrs.

Marks: 100

Centre:

Date:

Batch No.

- Q. 1. Write any five “DOS” commands with their syntax. 15
- Q. 2. Demonstrate the use of any two of Window Commands. 15
- Q. 3. Write a programme in ‘C’ language and execute on computer. 15
- OR
- Identify the spot 1 – 4 (2- Instruments / Equipments &
2- Input / Output devices)
- Q. 4. Give the WBC / RBC counting of the given sample 20
And write the procedure.
- OR
- Find out the Hemoglobin percentage of given sample
And write the procedure.
- Q. 5. Find out the constituents (any two) of the given urine sample 20
And write the procedure.
- OR
- Prepare any two fixatives / reagents
- Q. 6. Record Book. 10
- Q. 7. Viva – Voce. 5

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B. Sc. Third Year Practical Examination

Zoology – Paper – XI - F

BIOTECHNOLOGY

Time: 4 Hrs.

Marks: 100

Centre:

Date:

Batch No.

- | | |
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| Q. 1. Write the principle and application
Of | 15 |
| Q. 2. Extract and estimate the amount
Of From animal tissue. | 20 |
| Q. 3. Isolate and identify / Purify
.....
(Plasmids/ Microbes) | 20 |
| Q. 4. Identify and comment on induced mutation (Slides). | 10 |
| Q. 5. Identify and Comment on chromosomal aberration (Slides). | 10 |
| Q. 6. Project Report. | 10 |
| Q. 7. Record Book. | 10 |
| Q. 8. Viva – Voce. | 5 |

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B. Sc. Third Year Practical Examination

Zoology – Paper – XI - G

APICULTURE AND SERICULTURE (Optional)

Time: 4 Hrs.

Marks: 100

Centre:

Date:

Batch No.

Q. 1. Dissect the silkworm so as to expose its Silk Glands. 20

Q. 2. Dissect and mount the mouth parts of Silkworm. 15

OR

Sting apparatus of Honey bee.

Q. 3. Identify the given spots 1 – 3 giving reasons. 15
(Parts of mulberry plants and stages of life
Cycle of Silk work.)

Q. 4. Identify the rearing equipments of Silk worm. 10
Spots 1-4 giving reasons.

Q. 5. Identify the types of bee hives and equipments used in 15
apiculture. (Spots 1 – 3)

Q. 6. Submission of Plan and model of house of 10
Silk worm / Hive of honey bee.

Q. 7. Record Book. 10

Q. 8. Viva – Voce. 05

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