

Q.P. Code – 56961

**Final M.Sc. Degree Examination
OCTOBER/NOVEMBER 2014
(Directorate of Distance Education)**

Zoology

(DPB 510) Paper V – AQUACULTURE AND WILDLIFE STUDIES

Time : 3 Hours]

[Max. Marks : 75/85

Instructions to Candidates :

- 1) Answer any **TWO** questions from Section-A, **TWO** from Section-B and Section-C is **compulsory**.
- 2) Illustrate the answers wherever necessary.
- 3) Section-D is applicable to only freshers.

SECTION – A

2 × 15 = 30

1. Enlist the difference between monoculture and polyculture of fishes. Add a note on its importance.
2. Explain bacterial diseases of fishes and mention their prophylaxis.
3. Write in detail feeding habits, energy requirements and live feed of fishes.
4. Describe induced breeding in fishes.

SECTION – B

2 × 15 = 30

5. Write an essay on Gir lion sanctuary project.
6. Explain seasonal and ontogenetic migration of birds with suitable examples.
7. Comment on nesting in bagg bird.
8. Write in detail census methods for mammals.

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SECTION – C

9. Answer any **THREE** of the following : **3 × 5 = 15**
- (a) Algal toxins
 - (b) Hatcheries
 - (c) Passer domesticus
 - (d) Crocodile project
 - (e) National parks.

SECTION – D

1 × 10 = 10

10. Write an essay on wildlife conflicts between man and elephant.

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**(DPB 520) Paper VI – ENVIRONMENTAL POLLUTION AND
ECOTOXICOLOGY**

Time : 3 Hours]

[Max. Marks : 75/85

Instructions to Candidates :

- 1) Answer any **TWO** questions from Section-A, **TWO** from Section-B and Section-C is **compulsory**.
- 2) Illustrate the answers wherever necessary.
- 3) Section-D is applicable to only freshers.

SECTION – A

2 × 15 = 30

1. Write an essay on radiation pollution and its effects.
2. Comment on hazardous waste and its disposal methods.
3. Describe water pollutants and comment on eutrophication.
4. Explain aquaculture related EIA.

SECTION – B

2 × 15 = 30

5. Explain the classification of pesticides and comment on their effects on animals.
6. Describe biotransformation with suitable examples.
7. Describe the toxicity of microbial toxins and their effects on animals.
8. Explain statutory provisions and safety standards in toxicology studies.

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SECTION – C

9. Answer any **THREE** of the following : **3 × 5 = 15**
- (a) Ozone hole
 - (b) Soil erosion
 - (c) Bhopal tragedy
 - (d) Biomagnification
 - (e) Standard deviation

SECTION – D

- 1 × 10 = 10**
10. With suitable examples comment on ANOVA analysis and its benefits in toxicology.
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(DPB 530) Paper VII – SERICULTURE AND APICULTURE

Time : 3 Hours]

[Max. Marks : 75/85

Instructions to Candidates :

- 1) Answer any **TWO** questions from Section-A, **TWO** from Section-B and Section-C is **compulsory**.
- 2) Illustrate the answers wherever necessary.
- 3) Section-D is applicable to only freshers.

SECTION – A

2 × 15 = 30

1. Explain the muscardine diseases in silkworm.
2. Give a detailed account on global silk production and market status.
3. Elucidate silkworm morphology and life cycle.
4. Write a detailed account on eri silkworm rearing and add a note on tribal welfare.

SECTION – B

2 × 15 = 30

5. Give detailed account on structural adaptations in honey bee.
6. Describe grainage activities in silk industries and its importance.
7. What is swarming? Add a note on its importance.
8. Write an essay on honey bee pests and predators.

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SECTION – C

9. Answer any **THREE** of the following :

3 × 5 = 15

- (a) Muga silk
- (b) Mulberry Races
- (c) Dermestid beetles
- (d) Bed cleaning in silkworms
- (e) Bee venom

SECTION – D

1 × 10 = 10

10. Give a detailed account on social life in honey bees.

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**(DPB 540) Paper VIII – MOLECULAR GENETICS AND
BIOTECHNOLOGY**

Time : 3 Hours]

[Max. Marks : 75/85

Instructions to Candidates :

- 1) Answer any **TWO** questions from Section-A, **TWO** from Section-B and Section-C is **compulsory**.
- 2) Illustrate the answers wherever necessary.
- 3) Section-D is applicable to only freshers.

SECTION – A

2 × 15 = 30

1. Describe the post transcriptional modifications of mRNA.
2. Explain the method and applications of Ribozyme technology.
3. Explain the mechanism of DNA replication in Prokaryotes.
4. Give an account of transcription factors.

SECTION – B

2 × 15 = 30

5. Describe the transgenic technology and its applications.
6. What is recombinant DNA technology? Briefly write the advancements made in human health.
7. Give an account of animal viruses as cloning vectors used in biotechnology.
8. Describe the cDNA library and its applications in modern biology.

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SECTION – C

9. Answer any **THREE** of the following :

3 × 5 = 15

- (a) RFLP
- (b) Monoclonal antibodies
- (c) Biopesticides
- (d) RNA polymerase
- (e) Attenuation

SECTION – D

10. Write comprehensive notes on Split genes.

1 × 10 = 10
