

C-7394

Sub. Code

80113

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

First Semester

Poultry Science

APPLIED AVIAN ANATOMY AND PHYSIOLOGY

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Define Physiology.
2. Explain the feather patterns.
3. Define Respiration.
4. Types of blood components.
5. Types of bones.
6. Role of cloaca.
7. Name any two digestive enzymes.
8. Functions of Pancreas in birds.
9. Role of penal gland in birds.
10. Adaptive immunity.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Give a detailed account of integumentary parts of the chicken.

Or

- (b) Briefly explain the role of skin and feather in birds.

12. (a) Explain the inhalation and exhalation process in birds.

Or

- (b) Discuss components of poultry heart with neat diagram.

13. (a) Explain the different types of bones in the skeletal system.

Or

- (b) Discuss the functions of ureter and cloaca.

14. (a) Brief note on the functions of the small intestine in birds.

Or

- (b) Explain the female reproduction system.

15. (a) Compare the birds nervous and endocrine system in birds.

Or

- (b) Explain the function of the thymus in poultry.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Draw the diagram of avian anatomy and label the different organs.

Or

- (b) Explain the structure and function of male reproductive system.

17. (a) Write in detail birds kidney physiology.

Or

- (b) Elaborately discuss the digestive system in birds.

18. (a) Give a note on physiological indicators concerning the welfare of poultry.

Or

- (b) Write a note on bird immune system.

C-7395

Sub. Code

80114

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

First Semester

Poultry Science

**POULTRY PRODUCTION SYSTEMS, HOUSING,
AUTOMATION AND EQUIPMENTS**

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Intensive system.
2. Reverse cages.
3. Debeaking.
4. A type cages.
5. Filler flat.
6. Breeder.
7. Layer.
8. Ventilation.
9. Weather.
10. Egg processing plant.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Types of poultry houses.

Or

(b) Duct ventilation.

12. (a) Location of poultry house.

Or

(b) Californian cages.

13. (a) Layer feeding equipment.

Or

(b) Types of roof materials.

14. (a) Windowless house.

Or

(b) Automation in manure collection.

15. (a) Micro environment.

Or

(b) Feeding of breeders.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail on shed lay out for breeders and broilers.

Or

(b) Describe in detail on automation in feed mill and hatchery.

17. (a) Describe in detail on the importance of poultry housing and also explain tier cages and flat deck cages.

Or

- (b) Describe in detail on watering equipment, vaccinators and debeaking equipment in poultry farm.

18. (a) Describe in detail on raised platform poultry houses.

Or

- (b) Describe in detail on automation in meat processing plant.

C-7396

Sub. Code

80123

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

Second Semester

Poultry Science

INCUBATION AND HATCHERY MANAGEMENT

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Incubation period.
2. Hatching.
3. Hatchery waste.
4. Biosecurity.
5. Fumigation.
6. Egg cool room.
7. Physiological zero.
8. Relative humidity.
9. Turning of hatching eggs.
10. Chicks pull out.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Hatchery design.
Or
(b) Malposition.
12. (a) In-ovo vaccination.
Or
(b) Single stage incubator.
13. (a) Hatchery sanitation.
Or
(b) Care of hatching eggs.
14. (a) Packing and chick dispatch.
Or
(b) Gaseous environment.
15. (a) Hatchery waste management.
Or
(b) Fumigation.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail on layout and design of hatchery with neat diagram.
Or
(b) Physical requirements of incubation.

17. (a) Write an essay on major causes of hatching eggs failing to hatch.

Or

(b) Write in detail on hatchery operations.

18. (a) Analysis of poor hatchability.

Or

(b) Role of computers in hatchery operations.

C-7397

Sub. Code

80124

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

Second Semester

Poultry Science

**POULTRY NUTRITION AND FEED MILLING
TECHNOLOGY**

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Gizzard.
2. Anti-nutritional factor.
3. Mash.
4. Animal protein.
5. GMP.
6. Sunflower oil cake.
7. Mixer.
8. Biotin deficiency.
9. Enzyme.
10. Feed supplement.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Poultry feed formulation.
Or
(b) Non-Conventional feedstuffs.
12. (a) Nutrient requirements of broiler and breeder.
Or
(b) Growth promoters.
13. (a) Basic feed milling process.
Or
(b) Pesticides.
14. (a) Raw material adulteration.
Or
(b) Packaging of processed feed.
15. (a) Guinea fowl feeding methods
Or
(b) Design of feed mill.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail on utilization of non-conventional feed stuffs.
Or
(b) Write an essay on nutritional deficiencies in poultry.

17. (a) Write an essay on HACCP protocols in feed mill.

Or

(b) Animal and vegetable protein sources.

18. (a) Systematic quality control during various stages of feed preparation.

Or

(b) Biosecurity in feed mills.

C-7398

Sub. Code

80132

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

Third Semester

Poultry Science

PRINCIPLES OF POULTRY BREEDING

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Economic trait.
2. Law of segregation.
3. Homozygous individual.
4. Recessiveness.
5. Cross Breeding.
6. Out breeding.
7. Tandem method.
8. Artificial insemination.
9. Mating.
10. Flock mating.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Explain about trait of poultry.

Or

- (b) Discuss about genetic classification of poultry.

12. (a) Discuss the dominance and recessiveness of inheritance.

Or

- (b) Brief on distinguishing sex at hatching time.

13. (a) Describe the basis of selection — individual in breeding.

Or

- (b) Write short notes on principles in controlling inheritance.

14. (a) Comment on selection of birds for breeding.

Or

- (b) Write short notes on independent culling level in method of selection.

15. (a) Describe the influence of rate of laying.

Or

- (b) Write short notes on objectives of meat and egg production.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Give a detail account on economic traits in poultry breeding.

Or

- (b) Discuss about the law of segregation and recombination inheritance.

17. (a) Describe the detail the sex-linked inheritance in poultry breeding.

Or

- (b) Explain the principles in controlling inheritance of breeding.

18. (a) Comment on common breeding programs of poultry breeding.

Or

- (b) Detail account on effect of inbreeding and crossbreeding.

C-7399

Sub. Code

80133

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

Third Semester

Poultry Science

BROILER BREEDER MANAGEMENT

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Breeder
2. GGP
3. Strain
4. Brooding
5. Crop score
6. Stocking density
7. Fertility
8. Hatchability
9. Pedigree hatching
10. Feed efficiency

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write briefly about uniformity in broiler chicks.

Or

- (b) Explain briefly about sex separate rearing.

12. (a) Write briefly about selection of site for breeder farm.

Or

- (b) Compare between Hen Housed Egg Production and Hen day Egg production.

13. (a) Explain briefly about Feeding management in broiler breeders.

Or

- (b) Write briefly about fumigation in broiler hatchery.

14. (a) Explain briefly about vaccination schedule for broiler breeders.

Or

- (b) Write briefly about Lighting management in broiler breeders.

15. (a) Write briefly about grading of broiler chicks.

Or

- (b) Explain briefly about the importance of records in breeder farm.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail on overview of broiler breeder industry in India.

Or

- (b) Describe in detail on summer management of broiler breeders.

17. (a) Describe in detail on broiler breeder male management.

Or

- (b) Describe in detail on monitoring the performance of broiler breeders.

18. (a) Describe in detail on artificial insemination in broiler breeders.

Or

- (b) Describe in detail on biosecurity measures followed in a broiler breeder farm.

C-7400

Sub. Code

80136

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Third Semester

Poultry Science

CLIMATE AND POULTRY PRODUCTION

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Temperate.
2. Soil moisture.
3. Macroclimate.
4. Mortality.
5. Evaporation.
6. Parasites.
7. Thermoneutral Zone.
8. Insulation.
9. Antibiotics.
10. Photoperiod.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write short notes on
(i) transpiration
(ii) precipitation

Or

- (b) Brief dry climates?

12. (a) Write about physical heat regulations?

Or

- (b) List the recommended temperature for layers and broilers?

13. (a) Write the role of air in poultry production?

Or

- (b) List the heat resistant breeds?

14. (a) Explain brooding temperature?

Or

- (b) Brief the heat stress in poultry?

15. (a) List the types of inlet vent systems in poultry farming?

Or

- (b) Explain the measures adopted during extreme climatic conditions?

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Describe the effect of climate Change in Layer Poultry Farming?

Or

- (b) Write the clinical signs and symptoms of seasonal fluctuations?

17. (a) Write the effect of seasonal fluctuations on poultry production system?

Or

- (b) Thermoregulatory mechanism of poultry birds?

18. (a) Elaborate the involvement of Agro-meterology in poultry farming?

Or

- (b) Write the factors that influence of poultry farming in in-housed condition?
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C-5080

Sub. Code

80142

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

Fourth Semester

Poultry Science

BROILER PRODUCTION

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Short answer questions.

1. Straight run
2. FCR
3. BCC
4. Multiple batch system
5. Mortality
6. Cobb
7. Brooder
8. Roaster
9. Mash
10. Crop score

Part B

(5 × 5 = 25)

Brief answer with either or type.

11. (a) List out the broiler strains commercially available in India.

Or

- (b) Role of government in promoting broiler production in India.

12. (a) Write about preparation of shed before receiving day old broiler chicks.

Or

- (b) How will you manage weak birds in a broiler farm?

13. (a) Horizontal vs vertical integration.

Or

- (b) Litter management in a boiler farm.

14. (a) Write about feeder and drinker arrangement during finisher period in a broiler farm.

Or

- (b) Write about importance of water sanitation in a broiler farm.

15. (a) How will you handle customer complaints in broiler marketing?

Or

- (b) Describe in detail about lifting efficiency in broiler marketing.

Part C

(3 × 10 = 30)

Essay type questions of either or type.

16. (a) Write about the usefulness of five year plans in promoting broiler production in India.

Or

- (b) Write in detail about biosecurity measures to be adopted in a broiler farm.

17. (a) How will you manage broilers during prestarter, starter and finisher phases in your broiler farm?

Or

- (b) Write about types of feed and forms of feed to be given for broiler birds.

18. (a) How will you manage broilers during summer season?

Or

- (b) Discuss in detail about different ways of marketing of broilers.
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C-5081

Sub. Code

80143

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022

Fourth Semester

Poultry Science

POULTRY DISEASES AND FLOCK HEALTH

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Short answer questions with no choice.

1. Mortality
2. HP lesions
3. ILT
4. "Takes"
5. Carriers
6. Signs
7. Isolation
8. Down time
9. Deworming
10. Sanitation

Part B

(5 × 5 = 25)

Brief answer with either or type.

11. (a) Write about prevalence of E coli infection in a poultry farm. How will you prevent and control this disease effectively?

Or

- (b) Write about etiology, diagnosis, differential diagnosis, treatment, prevention and control of (IBD) Infections Bursal Disease.
12. (a) What is delicing? How will you perform it in a poultry farm?

Or

- (b) Cleaning and disinfection of poultry shed.
13. (a) Sanitizers and Disinfectants commonly used in a poultry farm.

Or

- (b) How will you prevent the occurrence of Aflotoxicosis in a poultry farm?
14. (a) Write about fly control measures to be adopted in a poultry farm.

Or

- (b) Write about importance of water medication for the prevention and control of poultry diseases.
15. (a) Write about gross and Hp lesions of (MD) and (IC) Infections Coryza Marck's disease.

Or

- (b) How will you prevent the occurrence of "Curled toe paralysis" in a poultry farm?

Part C

(3 × 10 = 30)

Essay type questions.

16. (a) List out the viral diseases affecting poultry and discuss in detail about New Castle disease.

Or

- (b) List out nutritional deficiency diseases and explain in detail about Vitamin deficiency.

17. (a) What is bio security? How will you adopt this concept in controlling poultry diseases.

Or

- (b) Write about salmonellosis in detail including etiology, transmission, signs, mortality, lesions, diagnosis, differential diagnosis, treatment, prevention and control.

18. (a) Write in detail about variation schedule for layers.

Or

- (b) Write about importance of preventing metabolic diseases in poultry farm.

C-8061

Sub. Code

80151

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Fifth Semester

Poultry Science

LAYER PRODUCTION

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Layer.
2. Reverse cages.
3. Henday egg production.
4. Feed efficiency/kg egg mass.
5. Per capita availability of eggs in India and Tamilnadu.
6. Chick.
7. Egg cool room.
8. Hatchability
9. Clutch.
10. NECC.

Part B

(5 × 5 = 25)

Answer **all** questions

11. (a) Write briefly about lighting management in layers.

Or

- (b) Explain briefly about selection of males for layer breeding.

12. (a) Write briefly about fumigation in layer breeder hatchery.

Or

- (b) Compare between Hen Housed Egg Production and Hen day Egg production.

13. (a) Explain briefly about artificial insemination.

Or

- (b) Write briefly about selection of site for layer breeder farm.

14. (a) Explain briefly about vaccination schedule for layer breeders.

Or

- (b) Write briefly about feeding management in layers.

15. (a) Write briefly about monsoon management of layer chicks.

Or

- (b) Explain briefly about the egg collection in breeder farm.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail on layer production standards.

Or

- (b) Describe in detail on winter management of layer breeders.

17. (a) Describe in detail on the factors affecting egg weight.

Or

- (b) Write an essay on National Egg Coordination Committee.

18. (a) Describe in detail on layer breeder male management.

Or

- (b) Describe in detail on biosecurity measures followed in a layer farm.
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C-8062

Sub. Code

80152

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Fifth Semester

Poultry Science

**POULTRY PROCESSING, PRODUCTS TECHNOLOGY
AND WASTE MANAGEMENT**

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Egg shell Quality
2. Albumen Index
3. New York dressed weight
4. Catching of birds
5. Shrinkage
6. Soft scalding
7. HACCP
8. Giblet
9. Poultry manure
10. Grading

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write briefly about loading and transportation of live birds for slaughter.

Or

- (b) Explain briefly about grading of Eggs.

12. (a) Write briefly about antemortem inspection of poultry.

Or

- (b) Explain briefly about nutritive value of poultry meat.

13. (a) Write briefly about dehydration of Poultry meat.

Or

- (b) Explain briefly about Codex alimentarius.

14. (a) Explain briefly about recycling of poultry manure.

Or

- (b) Write briefly about Poultry rendering plant.

15. (a) Explain briefly about liquid waste management.

Or

- (b) Write briefly about Composting.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail on internal and external qualities of chicken egg.

Or

- (b) Write in detail on egg preservation methods.

17. (a) Write an essay on Slaughter and dressing of poultry.

Or

(b) Write in detail on preparation of ready-to-cook and ready-to-eat chicken.

18. (a) Write an essay on methods of carcass disposal.

Or

(b) Write detailed answer on Biogas generation.

C-8063

Sub. Code

80155A

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Fifth Semester

Poultry Science

POULTRY ECONOMICS AND MARKETING STRATEGY

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10× 2 = 20)

Answer **all** questions.

1. Production cost.
2. Demand and supply.
3. BCR.
4. NECC.
5. NAFEED.
6. Shrinkage.
7. Contract farming.
8. Battery cage.
9. HDEP.
10. CPP.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Write briefly about types of poultry marketing.
Or
(b) How to analyze the production cost?
12. (a) Explain briefly about marketing channels.
Or
(b) What are the opportunities for marketing of value-added products of broiler meat.
13. (a) Give a brief account of broiler contract farming.
Or
(b) Write briefly about broiler farm records.
14. (a) Explain briefly about different types of farm records.
Or
(b) Write briefly about breeder contract farming.
15. (a) Explain the feed efficiency for egg production.
Or
(b) Write briefly about visual control system.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail on the agencies involved in marketing of broiler meat.
Or
(b) Write an essay on the agencies involved in marketing of chicken eggs.

17. (a) How broiler live birds are being marketed in Tamil Nadu?

Or

(b) Describe in detail about broiler contract farming.

18. (a) Write in detail about the economically important broiler production parameters.

Or

(b) Write in detail about the economically important breeder production parameters.

C-5085

Sub. Code

80155B

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Fifth Semester

Poultry Science

COMPUTER APPLICATION AND ERP

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Short answer questions.

1. Document creating
2. Editing
3. Table
4. Worksheet
5. Slideshow
6. World wide web
7. Google
8. email
9. Oracle
10. ERP

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b)

11. (a) Organization of work sheet area.

Or

- (b) MS word short cut keys.

12. (a) Mobile application for poultry industry.

Or

- (b) Inventory module.

13. (a) Order management module.

Or

- (b) OPMF.

14. (a) Concept of internet.

Or

- (b) Office automation.

15. (a) Advantages of ERP.

Or

- (b) Applications of Internet

Part C

(3 × 10 = 30)

Answer **all** questions, choosing either (a) or (b)

16. (a) Discuss in detail on the usage of computers in poultry automation.

Or

- (b) Human Resource Management System.

17. (a) Write an essay on Enterprise Resource Planning.

Or

(b) Discuss in detail on ERP software tools.

18. (a) Write in detail on basics and types of computer networks.

Or

(b) Write an essay on applications of internet.

C-5087

Sub. Code

80155 D

B.Sc. DEGREE EXAMINATION, NOVEMBER 2022.

Fifth Semester

Poultry Science

LEGAL ASPECTS OF POULTRY BUSINESS

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

Short answer question

1. Contract
2. Types of companies
3. promoter
4. remuneration
5. Indian partnership act
6. Registration
7. Seller
8. Property
9. Clearance
10. Performance of the contract

Part B

(5 × 5 = 25)

Answer **all** questions, choosing either (a) or (b).

11. (a) Essentials of valid contract offer.

Or

- (b) Indian contract act 1872.

12. (a) Companies Act 2013.

Or

- (b) Rights and duties of partnership Act.

13. (a) Rights and duties of partnership deed.

Or

- (b) Difference between sale and agreement to sell.

14. (a) Sales of Goods act 1930.

Or

- (b) Clearance from statutory bodies.

15. (a) Panchayat rules.

Or

- (b) Legal formalities to start a new venture in poultry business.

Part C

(3 × 10 = 30)

Answer **all** questions, choosing either (a) or (b).

16. (a) Discuss in detail on the nature, significance and types of contract.

Or

- (b) Write in detail on dissolution of a partnership.

17. (a) Write an essay on taxation to poultry enterprise farm.

Or

- (b) Discuss in detail on performance of the contract.

18. (a) Write in detail on Government of India Acts and Rules.

Or

- (b) Write an essay on distinction between company and partnership.

C-7013

Sub. Code

**16/17/23/25/
26/27/29**

**COMMON FOR ALL U.G DEGREE COURSES
EXAMINATION, NOVEMBER 2022**

First/Second Semester

ENVIRONMENTAL STUDIES

(2019/2020 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Nonrenewable resources
2. Ecosystem
3. Food Chain of forest ecosystem.
4. Pandemic Emergencies.
5. Red Data Book
6. Hot spots
7. Climate Change
8. Deforestation
9. Biodiversity
10. Acid Rain

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Differentiate renewable and nonrenewable energy resources.

Or

- (b) Write notes on structure and functions of grassland ecosystem.

12. (a) Write notes on Food Webs of Forest Ecosystem with suitable examples.

Or

- (b) Write notes on Genetic, Species and Ecosystem Diversity.

13. (a) Write short notes on Food resources and its problems associated with them.

Or

- (b) Write notes on land resources and problem associated with them.

14. (a) Write notes on thermal pollution.

Or

- (b) Write notes on energy pyramids with suitable examples.

15. (a) Explore the threats to biodiversity.

Or

- (b) Write note on man-made disaster with special reference to strike.

Part C

(3 × 10 = 30)

Answer **all** the questions.

16. (a) Write an essay on multidisciplinary nature of environmental studies and about the need for public awareness on environment.

Or

- (b) Write an essay on Water Resources and problem associated with over-utilization of various water resources.
17. (a) Write an essay on Biogeographical classification of India.

Or

- (b) Write an essay on values of biodiversity.
18. (a) Write an essay on causes, effects and control measures of water pollution.

Or

- (b) Enumerate various strategies in managing disasters caused due to natural calamities.
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C-5664

Sub. Code

**16/17/23/25/
26/27/29**

**Common for All U.G. B.Sc./B.B.A. DEGREE
EXAMINATION, APRIL 2022**

First/Second Semester

ENVIRONMENTAL STUDIES

(2019/2020 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** the questions.

1. ZSI.
2. WII.
3. What is renewable energy?
4. Food web.
5. Pyramid of numbers in aquatic ecosystem.
6. Red data book.
7. List out any five Endemic species of India.
8. List out marine pollutants.
9. *Ex Situ* Conservation.
10. Enlist Option Values of Biodiversity.

Part B

(5 × 5 = 25)

Answer **all** the questions.

11. (a) Write notes on definition, scope and importance of environmental studies.

Or

- (b) Write notes on soil erosion and desertification.

12. (a) Write notes on energy flow in the ecosystem.

Or

- (b) Write notes on threads to biodiversity.

13. (a) Write notes on Biodiversity at Global, National and Local levels.

Or

- (b) Write notes on various strategies of conservation of Biodiversity.

14. (a) Write notes on ecological pyramids.

Or

- (b) Write notes on air pollution.

15. (a) Write notes on noise pollution.

Or

- (b) Write notes on effects and control measures of nuclear hazards.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write an essay on the multidisciplinary nature of Environmental Studies.

Or

- (b) Write an essay on the following resources with special emphasis to how they are overexploited/utilized which in turn damage the environment, (i) Forest Resources and (ii) Food Resources.

17. (a) Write an essay on “India is a mega-diversity nation”.

Or

- (b) Write an essay on Biodiversity and their values.

18. (a) Write an essay on causes, effects and control measures of (i) Marine Pollution and (ii) Water Pollution.

Or

- (b) Write an essay on concept, structure and function of ecosystem.