

**C-5075**

**Sub. Code**

**80113**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.**

**First Semester**

**Poultry Science**

**APPLIED AVIAN ANATOMY AND PHYSIOLOGY**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Short answer questions with no choice.

1. Inhalation
2. OVT position
3. Fused bones
4. Waltzing behaviour
5. Bile pigments
6. Pineal gland
7. Blastoderm
8. Magnum
9. FSH
10. Fertilization

**Part B**

(5 × 5 = 25)

Brief answer questions with either or type.

11. (a) Describe different comb pattern with diagram.

Or

- (b) Enumerate organs involved in respiratory process and write the role of airsac in respiration.

12. (a) Draw the structure of egg, mark the parts. Write about the role of chalazae.

Or

- (b) Write about the functions of heart in blood circulation.

13. (a) Enumerate different types of bones in chicken body. Write about significance of each type of bones.

Or

- (b) Location and role of kidney in excretion of waste.

14. (a) Describe about spermatogenesis in chicken.

Or

- (b) Discuss about welfare issues in commercial poultry farming.

15. (a) GALT

Or

- (b) Normal physiological indices in different poultry.

**Part C**

(3 × 10 = 30)

Essay type question of either or type.

16. (a) Write an essay on different comb and feather pattern in chicken with neat diagram.

Or

- (b) Draw digestive system of chicken and write an essay on each organ involved in digestion.

17. (a) Write an essay about neuro-endocrine system in chicken.

Or

- (b) Define immune system. Enumerate different immune organs of chicken and write the functions of each immune organ.

18. (a) Write in detail about physiological indicators for welfare of chicken.

Or

- (b) Write an essay on normal physiological indices in different factors influencing normal physiological standards in poultry.

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**C-5076**

**Sub. Code**

**80114**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.**

**First Semester**

**Poultry Science**

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

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Brief answer questions with no choice (1-10)

1. Floor space
2. Furnished cages
3. Dubbing
4. Dom roof
5. Brooder guard
6. Trap nest
7. 'L' Type cages
8. Sprayer
9. 'R' value
10. Tray

**Part B**

(5 × 5 = 25)

Brief answer questions with either or type (11-15).

11. (a) Floor space, feeding and watering space for different age group of birds.

Or

- (b) Advantages of alternate housing system for layers.

12. (a) Role of macro environment on poultry performance.

Or

- (b) Factors influencing micro environment in poultry house.

13. (a) Deep litter vs Cage system : Write briefly about the advantages and disadvantages of both system.

Or

- (b) Raised platform cage houses.

14. (a) Describe in detail about different insulating materials used in poultry house construction.

Or

- (b) Windowless houses.

15. (a) Automation in meat processing plant.

Or

- (b) Advantages of pelletizer in poultry feed mill automation.

**Part C**

(3 × 10 = 30)

Essay type questions of either or type (16-18).

16. (a) Enumerate different systems of poultry farming. Write in detail about advantages and disadvantages of each system.

Or

- (b) Write in detail about the processes involved in selection of site, location, layout of a breeder farm.

17. (a) Concept and applications of automation in poultry industry.

Or

- (b) Future possibilities of automation in poultry farming.

18. (a) Significance of different ventilation system in poultry houses.

Or

- (b) Whether automation in poultry farming is required in the country like India? If so explain why? If not also explain why?

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**C-2127**

**Sub. Code**

**80123**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021**

**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. Multistage incubator
2. Pedigree hatching
3. Blood ring
4. Still air incubator
5. Gaseous environment
6. In-hatch vaccination
7. Physiological zero
8. Egg receiving room
9. Candling
10. Hatching of eggs

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Diagram of floor plan of an ideal hatchery and explain briefly.

Or

- (b) Preincubation storage of hatching eggs.

12. (a) Briefly discuss hatchery waste management.

Or

- (b) Explain the sexing of day old chicks.

13. (a) Explain briefly hatchery sanitation.

Or

- (b) Malpositions of embryos.

14. (a) Physical requirements in setter compartment.

Or

- (b) Vaccination, Packing and Dispatch of chicks.

15. (a) Vertically transmitted diseases and their control.

Or

- (b) Position and turning of eggs in incubation.



**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail on the selection of hatching eggs.

Or

- (b) Write in detail on the major causes of eggs failing to hatch.

17. (a) Physical requirements of incubation in setter and hatcher compartment.

Or

- (b) Diagnosis of hatchability problems.

18. (a) Discuss in detail the factors affecting fertility and hatchability of chicken eggs.

Or

- (b) Elaborately discuss malpositions and malformations of chicken eggs.
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**C-2128**

**Sub. Code**

**80124**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021**

**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.

Define the following :

1. Macronutrient
2. Feed additive
3. Essential fatty acid
4. Biological value
5. Energy and CP requirements for turkeys at various ages as per BIS
6. Crude fibre
7. Pesticide
8. Antinutritional factor
9. Phytobiotic
10. Crumbling

**Part B**

(5 × 5 = 25)

Answer **all** questions.

11. (a) Restricted feeding in broiler breeders.

Or

(b) Slipped tendon.

12. (a) Protein sources in poultry nutrition.

Or

(b) Feeding of broilers during winter season.

13. (a) Storage of raw feed ingredients.

Or

(b) Chemical evaluation of feed ingredients.

14. (a) Growth promoters in poultry nutrition.

Or

(b) Non-conventional feed ingredients.

15. (a) FLKS

Or

(b) Hypoproteinemia

**Part C**

(3 × 10 = 30)

Answer **all** questions.

16. (a) Write in detail on nutrient requirements and feeding of poultry.

Or

- (b) Discuss in detail about the digestive system in poultry with a neat diagram.

17. (a) Mycotoxins and discuss about any two toxins.

Or

- (b) Feeding Management in Guinea fowl.

18. (a) How will you control the quality of feed during various stages?

Or

- (b) Nutritional deficiency disorders in poultry and discuss in detail about any one disease.
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**C-5077**

**Sub. Code**

**80132**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.**

**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. Domestication
2. Sex-linked birds
3. X-linked dominant inheritance
4. Non-Mendelian inheritance
5. Breeding stock
6. Breed registry
7. Disadvantages of Tandem method
8. Artificial selection
9. Common breeding programmes
10. Process of artificial insemination

**Part B**

(5 × 5 = 25)

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

11. (a) Write an account on economic characters of dairy cattle.

Or

- (b) Give short notes on origin and breed characteristics of poultry.

12. (a) What is sex linked inheritance? Explain.

Or

- (b) Explain about the law of independent assortment.

13. (a) Define the following: pedigree selection and progeny testing.

Or

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

14. (a) Give an account on independent culling levels and selection index.

Or

- (b) How do you define the tandem method and ideal breeding programme.

15. (a) Discuss about the influence of sire and dam and influence of rate of laying.

Or

- (b) What are the factors influence the breeding for high hatchability? Explain with suitable examples.

**Part C**

(3 × 10 = 30)

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

16. (a) Write in detail about the qualitative traits and autosexing.

Or

- (b) Write an account on chromosome number in different species with suitable examples.

17. (a) What do you understand by Mendelian inheritance?

Or

- (b) Define the following: random mating, outbreeding, inbreeding.

18. (a) Write an essay on selection of egg type lines and meat type lines.

Or

- (b) Discuss in detail about the methods of mating in poultry system.
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**C-5078**

**Sub. Code**

**80133**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.**

**Third Semester**

**Poultry Science**

**BROILER BREEDER MANAGEMENT**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Answer **all** questions.

1. Open nucleus breeding program
2. Sexing errors
3. Operational biosecurity
4. Electrical brooder
5. Feeder arrangement
6. Deep litter house
7. Fumigation
8. Factors affecting fertility in chicks
9. HHE
10. HD%.



**Part B**

(5 × 5 = 25)

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

11. (a) Write an account on structure of broiler breeding schemes.

Or

- (b) Give short notes on commercial strains of broilers.

12. (a) What are the quality guidelines for drinking water on poultry farms? Explain.

Or

- (b) Explain about the house preparation and arrival of broilers.

13. (a) Define the following : pre-peak, peak and post-peak laying period management.

Or

- (b) Write short notes on breeder male management.

14. (a) Give an account on care of hatching eggs.

Or

- (b) How do you define the pedigree hatching.

15. (a) Discuss about the records and performance parameter monitoring system in poultry industry.

Or

- (b) Define the following: hatchability percentage, livability, feed efficiency and flock costing.

**Part C**

(3 × 10 = 30)

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

16. (a) Write in detail about the production standards and breeder terminology in broiler industry.

Or

- (b) What is biosecurity? Discuss in detail about the types and importance of biosecurity.

17. (a) Explain about the growing management in poultry industry.

Or

- (b) Give detail account on pre-laying and laying management of breeder flocks.

18. (a) Write an essay on artificial insemination in poultry farms.

Or

- (b) Discuss in detail about the records and performance parameter monitoring system in poultry industry.

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**C-5079**

**Sub. Code**

**80136**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021**

**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. Seasonal fluctuations in poultry farm
2. Intensity of broiler production
3. Macro climate factors
4. LCT
5. Air cooling systems for humidity and temperature control
6. Automatic temperature controller
7. Construction of poultry house
8. Heat stress in chicken
9. Types of disaster
10. Disaster management for livestock during drought

**Part B**

(5 × 5 = 25)

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

11. (a) Write short notes on the climatic factors.

Or

- (b) Give an account on climatic factors in region to promote poultry production.

12. (a) Give an account on micro-climate.

Or

- (b) Explain about the effect of temperature and temperature zones for avian production.

13. (a) Define the following; measuring and assessing temperature in poultry production.

Or

- (b) Write short note on physical and chemical factors influencing the heat regulations.

14. (a) Give short note on different climate regions of India for the production of natural heat resistant breeds.

Or

- (b) Write short notes on weather based management of livestock and poultry.

15. (a) Discuss the following extreme climatic conditions: housing, feeding, water, medication.

Or

- (b) Explain about the poultry management: orientation of house, ventilation, Litter management, feed management and water management

**Part C**

(3 × 10 = 30)

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

16. (a) Write an account on classification of climate in different regions.

Or

- (b) What is macro-climate? Explain with suitable examples.
17. (a) Explain in detail about the effect of summer, winter and monsoon in poultry production.

Or

- (b) Define the following: agro-meteorology and whether forecasting for poultry husbandry activities.
18. (a) Give detail account on effect of seasons and alleviating measures in poultry production.

Or

- (b) Write an essay on climatic adaptation measures and disaster management.

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**C-5082**

**Sub. Code**

**80151**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.**

**Fifth Semester**

**Poultry Science**

**LAYER PRODUCTION**

**(2019 onwards)**

Duration : 3 Hours

Maximum : 75 Marks

**Part A**

(10 × 2 = 20)

Short Answer questions with no choice. (1-10)

1. Operational biosecurity.
2. Debeaking
3. Culling
4. Photo period
5. NECC
6. Fertility
7. Sex ratio
8. Truss
9. Hover
10. Leathery egg.

**Part B**

(5 × 5 = 25)

Brief answer with either or type. (11-15)

11. (a) Enumerate the commercial layer strains available in India with their standard production performance.

Or

- (b) Write in detail about the systems of layer farming.

12. (a) Brooding management for layer chicks.

Or

- (b) Write in detail about environmental standards required for layer farming.

13. (a) Write the major significance of sex separate rearing in layers.

Or

- (b) Why grading of layers is important? Write about basis and different standards for layer grading.

14. (a) Stacking and packing of table eggs.

Or

- (b) Why supplementary feeding is required in layer farming? Write its implications in layers.

15. (a) Describe the role of nutrition on egg weight.

Or

- (b) Measures of egg shell quality? How proper egg shell quality is managed under field condition?

**Part C**

(3 × 10 = 30)

Essay type questions of either or type. (16-18)

16. (a) Layout and design of layer farm under different systems of rearing.

Or

- (b) Define biosecurity. Write in detail about different concepts in biosecurity and importance of biosecurity in layer production.

17. (a) Define stocking density. Describe in detail about the implications of stocking density, temperature and relative humidity in layer farming.

Or

- (b) Describe the procedure for semen collection and artificial inseminations in poultry.

18. (a) Write in detail about summer management in layer breeders.

Or

- (b) Write in detail about performance goals in commercial layers and layer breeders.

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**C-5083**

**Sub. Code**

**80152**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021**

**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 size.
2. Albumen Index.
3. Table egg.
4. Flavour.
5. Curing.
6. Giblets.
7. Codex alimentarius.
8. Tray packing.
9. Litter material.
10. Scalding.

**Part B**

(5 × 5 = 25)

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

11. (a) Egg quality maintenance.

Or

- (b) Loading and transportation of live birds.

12. (a) Packaging frozen poultry.

Or

- (b) Nutritive value of Poultry eggs.

13. (a) Bulk containers.

Or

- (b) Rendering plant design.

14. (a) Potential of poultry litter as fertilizer.

Or

- (b) Poultry rendering plant.

15. (a) Composition of poultry manure.

Or

- (b) Effluent treatment.

**Part C**

(3 × 10 = 30)

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

16. (a) Write in detail on egg formation with suitable diagram.

Or

- (b) Egg microbiology.

17. (a) Write an essay on preservation methods of poultry eggs.

Or

(b) Functional qualities of eggs.

18. (a) Measuring carcass yield and characteristics.

Or

(b) Processing and packaging of table eggs.

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**C-5084**

**Sub. Code**

**80155A**

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2021.**

**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.

Short answer questions

1. Marketing channel
2. NECC
3. NAFED
4. BCC
5. Working capital
6. Net returns
7. Depreciation
8. Fixed cost
9. Variable cost
10. Bankable project

**Part B**

(5 × 5 = 25)

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

11. (a) Objectives of poultry marketing.

Or

- (b) Marketing of eggs.

12. (a) Broiler contract farming.

Or

- (b) Battery cages.

13. (a) Marketing channels for poultry meat.

Or

- (b) Litter materials.

14. (a) Bird shrinkage and loss problem.

Or

- (b) Work out the fixed investment for 1000 broilers in biweekly batch system.

15. (a) Culling of breeders.

Or

- (b) Hatching eggs.

**Part C**

(3 × 10 = 30)

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

16. (a) Draw a project report for rearing 500 broilers in All in all out system.

Or

- (b) Broiler farm economic indices.

17. (a) Write an essay on farmer and trader relationship management.

Or

(b) Farm records and register maintenance in a layer farm.

18. (a) Write in detail on breeder farm administration.

Or

(b) Write an essay organizational structure of poultry meat marketing.

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