

C-5441

Sub. Code

80311

DIPLOMA EXAMINATION, NOVEMBER 2021

First Semester

Commercial Broiler Production Management

BASIC ANATOMY AND PHYSIOLOGY OF CHICKEN

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Glottis.
2. Erythropoiesis.
3. Harderian gland (Hg).
4. Types of blood vessels.
5. Respiratory Alkalosis.
6. Feather patterns.
7. Role of plumage in chicken.
8. Medullary bones.
9. Bursa of Fabricius.
10. Renin-Angiotensin mechanism.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Various hybrid chicken available for production and its merits and demerits.

Or

- (b) Role of skin in poultry.

12. (a) Write in detail on the various bones of the pectoral girdle.

Or

- (b) Write in detail on the various bones of the pelvic girdle.

13. (a) Regulation of Acid base balance by kidneys.

Or

- (b) Vertebral column of chicken.

14. (a) Main parts of nervous system and their roles.

Or

- (b) Different organs of immune system and its functions.

15. (a) Renal portal system.

Or

- (b) Functions of blood with appearance of erythrocytes in chicken.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Standard or official classification of chicken based on the place of origin and other species of poultry.

Or

- (b) Composition of avian blood and plasma.

17. (a) Anatomical structures of various parts of the respiratory system with respiratory movements and airflow.

Or

- (b) Discuss in detail on the hormones of the pancreas and their role in the metabolism of various nutrients.

18. (a) Describe in detail on the various process involved in the formation of urine with necessary drawings.

Or

- (b) Anatomy of the female reproductive tract of the chicken along with the formation of egg with necessary drawings.

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80312

**DIPLOMA IN COMMERCIAL BROILER PRODUCTION
AND MANAGEMENT EXAMINATION, NOVEMBER 2021**

First Semester

**BROILER HOUSING, EQUIPMENT AND
ENVIRONMENT**

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Slat system.
2. Filler flats.
3. Insulating materials – Broiler shed.
4. Canopy.
5. Different types of poultry house ventilation system.
6. Leeward.
7. Overhang.
8. Eaves.
9. Different types of brooders.
10. Conveyor and Pan feeder.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Semi-intensive system.

Or

(b) Backyard system.

12. (a) Wet litter problem.

Or

(b) Ammonia production in broiler farms.

13. (a) Fundamentals principles of ventilation in broiler house.

Or

(b) Tunnel ventilation systems.

14. (a) Different methods of manure collection system.

Or

(b) Nest boxes and its significance.

15. (a) Feeding and watering space requirements for different broiler age groups.

Or

(b) Floor space requirements for commercial broilers, under deep litter and cage systems of rearing.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Explain in detail the importance of environmentally controlled broiler housing system in India.

Or

- (b) Discuss in detail the principles involved in duct ventilation and tunnel ventilation adopted in Windowless poultry house.

17. (a) Discuss in detail the different types of cages adopted in commercial broiler farms with its specifications and advantages.

Or

- (b) Explain in detail about automation techniques involved in egg processing plant.

18. (a) Discuss in detail the different types of vaccinators, brooders and feeding equipments commonly used in commercial broiler farms.

Or

- (b) Discuss in detail the advantages and disadvantages of environmentally controlled vs open-sided system of broiler housing under tropical conditions.

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DIPLOMA EXAMINATION, NOVEMBER 2021

First Semester

Commercial Broiler Production Management

INCUBATION AND HATCHERY MANAGEMENT

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Fluff
2. Still air incubator
3. Pedigree box
4. Blood ring
5. Egg storage room temperature and RH
6. Late pull out
7. Gaseous exchange
8. Turning of eggs
9. Fertile eggs
10. Total hatchability.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Packaging material for chick transport.

Or

- (b) In-hatch vaccination and medication

12. (a) Sanitation of hatching eggs.

Or

- (b) Grading of chicks.

13. (a) Straight run chicks.

Or

- (b) Multi-stage incubators.

14. (a) Early embryonic mortality.

Or

- (b) Late embryonic mortality.

15. (a) Single vs. double setters.

Or

- (b) Relative Humidity.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail about factors responsible for poor hatchability in commercial hatcheries.

Or

- (b) Write in detail about the special consideration on layout, design and location of a modern commercial layer hatchery.

17. (a) Write in detail about the various steps involved in commercial hatchery operation.

Or

(b) Discuss the various factors responsible for physical requirements of incubations.

18. (a) Write in detail the various reasons for malformation and malposition of embryo.

Or

(b) Discuss about the cleaning, washing and various methods of waste disposal in commercial hatcheries.

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80314

DIPLOMA EXAMINATION, NOVEMBER 2021

First Semester

Commercial Broiler Production Management

BROILER MANAGEMENT – I

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Livability
2. Relative humidity
3. BCC
4. EEF
5. Squab broiler
6. Crumble
7. Straight run chicks
8. FCR
9. Commercial broiler strains
10. NMPPB.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Types of poultry feed.

Or

(b) Preparation of house before arrival of chicks.

12. (a) Factors influencing body weight and body weight gain in broilers.

Or

(b) Desirable quality guidelines of drinking water in poultry.

13. (a) Bodyweight monitoring and uniformity in commercial broiler.

Or

(b) Backward integration.

14. (a) Advantages of pellet feed in boiler production.

Or

(b) Crop fill.

15. (a) Litter management in commercial broiler production.

Or

(b) Crop score assessment.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail the current scenario of broiler industry in India.

Or

- (b) What is integration? Write in detail about the different types of integration and its advantages in broiler production.

17. (a) Write in detail about the different type of rearing system adopted in commercial broilers.

Or

- (b) Discuss in detail about the brooding management and floor space, feeding and watering space requirement for commercial broilers.

18. (a) Write in detail about summer management of commercial broilers.

Or

- (b) Explain: Broiler performance efficiency factor and broiler farm economy index.

C-3053

Sub. Code

80321

DIPLOMA EXAMINATION, NOVEMBER 2021

Second Semester

Commercial Broiler Production and Management

BROILER MANAGEMENT-II

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Freezer burn.
2. List out different types of chicken slaughter.
3. Evisceration.
4. Ante-mortem inspection.
5. Wet marketing.
6. Fryer.
7. Meat: bone ratio.
8. Chilling.
9. Breast blisters.
10. New York dressed weight.

Part B

(5 × 5 = 25)

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

11. (a) Moisture absorption during washing and chilling.

Or

- (b) Proportion of different parts of broiler carcasses.

12. (a) Different types of shrinkage.

Or

- (b) Factors influencing broiler shrinkage.

13. (a) Deboned meat.

Or

- (b) Characteristics of broiler meat.

14. (a) Constraints in broiler marketing.

Or

- (b) Blast freezer chicken meat preservation.

15. (a) Nutritive value of broiler meat.

Or

- (b) Salient points to be considered in lifting of commercial broilers.

Part C

(3 × 10 = 30)

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

16. (a) Explain in detail the operations and precautionary measures to be carried out for slaughter house operations in India.

Or

- (b) Discuss in detail the steps involved in preparation and processing of ready-to-eat chicken products.

17. (a) Explain in detail HACCP regulations to be followed for processed poultry meat products.

Or

(b) Discuss in detail the codex regulations to be followed for processed chicken meat products.

18. (a) Discuss in detail the different types of packaging and storage methods for broiler meat carcasses.

Or

(b) Describe in detail about various safety and health care measures to be taken during Ante-mortem inspection of commercial broilers.

C-5445

Sub. Code

80322

DIPLOMA EXAMINATION, NOVEMBER 2021

Second Semester

Commercial Broiler Production Management

BROILER NUTRITION AND FEED MILL TECHNOLOGY

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Pellet binder
2. NSP enzymes
3. Particle size of the mash feed and its effect on the performance
4. Rice bran and rice polishings
5. Total phosphorus vs. Available phosphorus
6. Antioxidants
7. Trypsin inhibitor
8. Molasses in the poultry diet
9. Abdominal fat in broilers
10. Linoleic acid

Part B

(5 × 5 = 25)

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

11. (a) Broiler feeding with four feed program.

Or

- (b) Methods adopted to validate the efficiency of mixer with interpretations.

12. (a) Physical and sensory evaluation of feed ingredients.

Or

- (b) Maximum permissible levels of various mycotoxins in poultry feed and the procedure to be followed to minimise the same.

13. (a) Objective of crumbling. Measures to maintain the pellet durability of the pelleted feed.

Or

- (b) Explain in detail on the importance of premixing in feed production system.

14. (a) Enlist the essential trace minerals to be incorporated in the broiler diet and their sources along with the requirement for the commercial broiler as per BIS.

Or

- (b) Describe in detail on the various types of fats and oils along with the advantages and disadvantages.

15. (a) Objective for the preparation of pellet feed and advantages/disadvantages of pellet feed over mash feed.

Or

- (b) Self feeding Vs controlled feeding.

Part C

(3 × 10 = 30)

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

16. (a) Describe in detail on the additives and supplements incorporated in the broiler diet and their role in improving production performance.

Or

- (b) Describe in detail on the different types and forms of feed available for feeding to broilers and enlist their merits and demerits.
17. (a) List out the various equipments utilised in the preparation of pellet feed and their functions with special reference to pelletizer. Draw the floor plan and elevation plan for the pellet feed mill with a capacity to produce 2 MT per hour.

Or

- (b) Describe in detail on the nutritional characteristics of various animal protein sources, risk associated with the use of the same in the broiler diet and possible measures to be taken to alleviate the risks.
18. (a) Define proximate principles and enlist their components. Explain in detail on the method followed for the estimation of crude fat.

Or

- (b) Describe in detail on the commonly occurring anti-nutritional factors and toxicants in poultry feed ingredients.

C-5446

Sub. Code

80323

**DIPLOMA IN COMMERCIAL BROILER PRODUCTION
MANAGEMENT EXAMINATION, NOVEMBER 2021**

Second Semester

**BROILER FLOCK HEALTH, DISEASE AND
BIO-SECURITY**

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Mycosis
2. Biotin
3. Exudative diathesis
4. Maternal immunity
5. Sanitation
6. Withdrawal period
7. Omphalitis
8. HVT vaccine
9. Viscerotropic velogenic form
10. Bacillary white diarrhoea

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Measures to be taken during outbreak of diseases.
- Or
- (b) Colibacillosis.
12. (a) Water sanitizers (Generics) commonly used in the broiler farms.
- Or
- (b) Ascities.
13. (a) Vaccination, Procedure for the preparation of vaccine and general precautions to be taken care during vaccination.
- Or
- (b) Precautions to be observed by vaccinators.
14. (a) Chronic respiratory disease.
- Or
- (b) Intestinal nematodes.
15. (a) Brooder pneumonia.
- Or
- (b) Various important modes of transmission of *Salmonella enteritidis* and *Salmonella typhimurium*.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Describe in detail on the etiology, host and transmission, signs, morbidity and mortality, gross lesions, diagnosis, treatment and control of New castle disease.

Or

- (b) Describe in detail on the etiology, host and transmission, signs, morbidity and mortality, gross lesions, diagnosis, treatment and control of Coccidiosis with special reference to *Eimeria tenella*. Draw the life cycle of *Eimeria tenella*.
17. (a) Describe in detail on the etiology, host and transmission, signs, morbidity and mortality, gross lesions, diagnosis, treatment and control of Infectious Bronchitis.

Or

- (b) Describe in detail on the etiology, host and transmission, signs, morbidity and mortality, gross lesions, diagnosis, treatment and control of Infectious coryza.
18. (a) Describe in detail on the etiology, host and transmission, signs, morbidity and mortality, gross lesions, diagnosis, treatment and control of Marek's disease.

Or

- (b) Describe in detail on the etiology, host and transmission, signs, morbidity and mortality, gross lesions, diagnosis, treatment and control of mycotoxicosis with special reference to aflatoxin.

C-5447

Sub. Code

80324

DIPLOMA EXAMINATION, NOVEMBER 2021

Second Semester

Commercial Broiler Production Management

BROILER ECONOMICS AND MARKETING

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. BROMARK
2. ACIL
3. Marketing
4. Lifting efficiency
5. IRR
6. Wholesaler
7. Consumer
8. VCS
9. Assets
10. Recurring expenditure

Part B

(5 × 5 = 25)

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

11. (a) Marketing activities.

Or

- (b) Marketing of poultry meat.

12. (a) Breeder contract farming.

Or

- (b) Environmentally controlled poultry house.

13. (a) Marketing channels for poultry eggs.

Or

- (b) Broiler farm registers.

14. (a) Production cost of poultry meat.

Or

- (b) Broiler farm receipts.

15. (a) Suggestions for marketing frozen poultry meat in India.

Or

- (b) FCR, EEF and CFCR.

Part C

(3 × 10 = 30)

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

16. (a) Draw a project report for rearing 2000 broilers weekly in batch system.

Or

- (b) Broiler farm economic indices.

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

Or

(b) Cost of infrastructure development for live bird marketing.

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

Or

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