

C-4431

Sub. Code

80311

DIPLOMA EXAMINATION

**COMMERCIAL BROILER PRODUCTION
MANAGEMENT**

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

BASIC ANATOMY AND PHYSIOLOGY OF CHICKEN

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Feather tract.
2. Pea and rose combs.
3. Asiatic class.
4. New Hampshire.
5. Syrinx.
6. Proventriculus.
7. Ureter.

8. Adrenal gland.
9. Dual purpose breed.
10. Medullary bond.

Part B

(5 × 5 = 25)

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

11. (a) Feather patterns in poultry-explain the diagram.

Or

- (b) Mediterranean breeds.

12. (a) How feathers are replenished?

Or

- (b) Avian skeletal system.

13. (a) Structure of egg with diagram.

Or

- (b) Role of kidney.

14. (a) Inhalation and exhalation process in avian species.

Or

- (b) Role of hypopysis.

15. (a) Components of blood.

Or

- (b) Wing and limb bones.

Part C

(3 × 10 = 30)

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

16. (a) Discuss in detail on the salient features of English and American classes of chicken. Explain in detail about Sussex breed.

Or

- (b) Write in detail on non-descript birds of India.
17. (a) Write an essay on Endocrine system of poultry with diagram.

Or

- (b) Discuss in detail on avian respiratory system with neat diagram.
18. (a) Write in detail on excretory system with suitable diagram.

Or

- (b) Write an essay on the structure of female reproductive system with neat diagram.

C-4432

Sub. Code

80312

DIPLOMA EXAMINATION
COMMERCIAL BROILER PRODUCTION
MANAGEMENT
APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

BROILER HOUSING, EQUIPMENT AND
ENVIRONMENT

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Full monitor.
2. Semi-intensive system.
3. Floor space.
4. Vapor barrier.
5. Californian cages.
6. Nest box.
7. Windowless house.

8. Brooder.
9. Automatic waterer.
10. Climate.

Part B

(5 × 5 = 25)

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

11. (a) Insulating materials used for poultry house.

Or

- (b) A type cages.

12. (a) Advantages of deep litter system.

Or

- (b) Location of the broiler farm.

13. (a) Brooding equipment.

Or

- (b) Automatic vaccinator.

14. (a) Automation in egg collection system.

Or

- (b) Wire floor.

15. (a) Filler flats.

Or

- (b) Duct ventilation.

Part C

(3 × 10 = 30)

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

16. (a) Discuss in detail on watering and feeding space requirements for different age groups under different rearing conditions. Explain tier cages.

Or

- (b) Write in detail on the design of a poultry house with diagram.
17. (a) Write an essay on basic principles of construction of poultry houses.

Or

- (b) Discuss in detail on the fundamentals of ventilation in poultry houses.
18. (a) Write in detail on concept of automation and automation in manure collection system.

Or

- (b) Write an essay on the environmentally controlled poultry houses.
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C-4433

Sub. Code

80313

DIPLOMA EXAMINATION

**COMMERCIAL BROILER PRODUCTION
MANAGEMENT**

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

INCUBATION AND HATCHERY MANAGEMENT

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Down feather.
2. Forced draft incubator.
3. Pedigree hatch.
4. Candling.
5. Hatcher temperature and RH.
6. Early pull out.
7. Fumigation.

8. Malposition.
9. Infertile egg.
10. Fertility.

Part B

(5 × 5 = 25)

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

11. (a) Incubation periods.

Or

- (b) In-ovo vaccination and medication.

12. (a) Storage of hatching eggs.

Or

- (b) Physiological zero.

13. (a) Grading of eggs.

Or

- (b) Incubation methods.

14. (a) Sexing of chicks.

Or

- (b) Fertile hatchability.

15. (a) Malformation.

Or

- (b) Single and multistage incubators.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Discuss in detail about hatchery sanitation procedure to be carried out in commercial hatcheries.

Or

- (b) Factors affecting fertility, hatchability and quality of chicks.
17. (a) Write in detail about the role of computer in modern hatchery operations.

Or

- (b) Discuss in detail about the importance of post hatch break open study in hatchery.
18. (a) Write in detail about the hatchery waste management.

Or

- (b) Selection and care of hatching eggs.
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C-4434

Sub. Code

80314

DIPLOMA EXAMINATION
COMMERCIAL BROILER PRODUCTION
MANAGEMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

First Semester

BROILER MANAGEMENT — I

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Kuroiler.
2. Pre-starter.
3. Brooding.
4. CFCR.
5. Relative humidity.
6. Pellet.
7. Sanitation.

8. Crop score.
9. EEF.
10. Integration.

Part B

(5 × 5 = 25)

Answer **all** questions.

11. (a) Role of BCC in broiler marketing.
Or
(b) Brooding house arrangement before arrival of chicks.
12. (a) Sex separate rearing in broilers.
Or
(b) Describe qualities of litter material for commercial broilers.
13. (a) All in-all out Vs. Multiple batch system.
Or
(b) Forward integration.
14. (a) Physical form of poultry feed.
Or
(b) Feeder and drinker maintenance during broiler starter phase.
15. (a) Importance of a weak bird management in commercial broiler production.
Or
(b) Feeder and drinker maintenance during broiler finisher phase.

Part C

(3 × 10 = 30)

Answer **all** questions.

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

Or

- (b) What is Bio-security? Write in detail about the importance of bio-security measures to be adopted in commercial broiler production.
17. (a) Write in detail about the factors influencing body weight, body weight gain, feed conversion ratio and livability in commercial broilers.

Or

- (b) Discuss in detail about the advantage and disadvantage of deep litter vs. cage system of rearing in commercial broilers.
18. (a) Write in detail about winter management of commercial broilers.

Or

- (b) Discuss in detail about the feeding, watering and lighting management of broilers during brooding periods.
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C-4435

Sub. Code

80321

DIPLOMA EXAMINATION
COMMERCIAL BROILER PRODUCTION
MANAGEMENT

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Semester

BROILER MANAGEMENT — II

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Maillard reaction.
2. Jaka method.
3. Grilling.
4. Warner Bratzler shear press.
5. Bruises.
6. Scalding.
7. Disfigurement.
8. Rancidity.
9. Singeing.
10. Giblets.

Part B

(5 × 5 = 25)

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

11. (a) Write the flow sheet for canning the boned chicken along with various steps followed in canning operation.

Or

- (b) Vehicle specification for the transport of packaged poultry meat.

12. (a) Smoking of poultry meat.

Or

- (b) Various methods of stunning followed in the poultry processing plant.

13. (a) Inspection of the dressed carcass by inspector.

Or

- (b) Tray packing of whole poultry and cut-up parts.

14. (a) Different types of freezing methods followed for freezing the poultry carcasses in the processing plants.

Or

- (b) Market classes of poultry.

15. (a) Freeze drying, advantages of freeze drying and various steps involved in freeze drying of poultry meat.

Or

- (b) Proportion of different parts of carcass in commercial broiler along with their significant differences in terms of various meat quality attributes.

Part C

(3 × 10 = 30)

Answer **all** questions.

16. (a) Define HACCP. Write down the seven principles involved in the implementation of HACCP in poultry processing and elaborate the following.
- (i) Critical control point
 - (ii) Establishing critical limits
 - (iii) Establishing systems to monitor the control of CCP.

Or

- (b) Describe in detail on the various marketing strategies followed and marketing channels available in live broiler marketing with special reference to integration.
17. (a) Describe in detail on the various procedures / steps involved in processing of live commercial broiler in mechanised poultry processing plants till ice packing of whole carcass in boxes.

Or

- (b) Describe in detail on the preparation of ready-to-cook, ready-to-eat chicken from the dressed whole broiler carcass with detailed procedure for the preparation of chicken sausage.
18. (a) Various methods of preservation followed in poultry meat EXCEPT freezing and freeze drying.

Or

- (b) Write in detail on the changes in quality of frozen poultry during storage.

C-4436

Sub. Code

80322

DIPLOMA EXAMINATION

**COMMERCIAL BROILER PRODUCTION
MANAGEMENT**

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Semester

BROILER NUTRITION AND FEED MILL TECHNOLOGY

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Extrusion cooking of feed.
2. Synthetic amino acids.
3. Urease Index.
4. Sulfur containing amino acids.
5. Calorie Vs. Joule.
6. Pellet durability.
7. Antinutritional factors.
8. Competitive exclusion.

9. Pigments present in the poultry feed / Feed ingredients.
10. Premix.

Part B

(5 × 5 = 25)

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

11. (a) Various sources of oil and fats incorporated in the poultry feed along with their specification to be followed while purchasing them.

Or

- (b) Nutritional characteristics and nutrient profile of Meat and bone meal.

12. (a) Brief mention the nutrient profile of corn.

Or

- (b) Protein solubility index to assess the protein quality of soybean meal.

13. (a) Methods to be employed in sampling of feed ingredients and finished feed for laboratory analysis.

Or

- (b) Non-conventional vegetable protein sources.

14. (a) BIS level of vitamins to be incorporated in the Broiler starter feed. Explain in detail on the role of Vitamin E along with deficiency symptoms noticed in commercial broiler.

Or

- (b) Storage techniques followed for the raw materials and finished feed.

15. (a) Various quality control procedures to be followed in the production of safe and quality feed.

Or

- (b) Fish meal gizzard erosion factor.

Part C (3 × 10 = 30)

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

16. (a) Various stages of feed production for the production of mash feed with necessary drawing / flow chart.

Or

- (b) Briefly mention various stages of feed production for the production of pellet feed with necessary drawing / flow chart. Describe in detail on various chemical reactions occurs during pelleting.

17. (a) Describe in detail on the nutritional characteristics of various energy sources, presence of various antinutritional factors and their limitations in the utilisation of the same in the broiler diet.

Or

- (b) Enumerate various methods adopted for the storage of raw materials with special reference to silos in the bulk production system.

18. (a) Discuss in detail on the various mycotoxins produced by various fungi with special reference to poultry feed, their maximum permissible level and methods to alleviate / minimise the toxicity of mycotoxins present in the feed.

Or

- (b) Describe in detail on the additives and supplements incorporated in the broiler diet and their role in improving production performance.
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C-4437

Sub. Code

80323

DIPLOMA EXAMINATION

**COMMERCIAL BROILER PRODUCTION
MANAGEMENT**

APRIL 2021 EXAMINATION

&

APRIL 2020 ARREAR EXAMINATION

Second Semester

**BROILER FLOCK HEALTH DISEASE AND
BIOSECURITY**

(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

Short Answer Questions :

1. Gout.
2. Dyspnoea.
3. ELISA.
4. Material immunity.
5. Withdrawal period.
6. Omphalitis.
7. Clubbed down.

8. Rickets and Osteomalasia.
9. Cage layer fatigue.
10. Thrush.

Part B

(5 × 5 = 25)

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

11. (a) Precautions to be followed while giving the vaccine through drinking water.

Or

- (b) Shuttle and rotation programme followed to control the coccidiosis.

12. (a) Fowl typhoid.

Or

- (b) Fowl cholera.

13. (a) Usage of antibiotic growth promoters that are commonly added in the broiler feed.

Or

- (b) Briefly explain the various components of Biosecurity.

14. (a) Factors to be considered while choosing a disinfectant to be used in the poultry farm.

Or

- (b) Various ectoparasitic infestation in broiler and measures to control the same.

15. (a) Aspergillosis.

Or

(b) Properties of good anticoccidial drugs.

Part C

(3 × 10 = 30)

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

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

Or

(b) Describe in detail on the etiology, host and transmission, signs, morbidity and mortality, gross lesions, diagnosis, treatment and control of Gumboro disease.

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

Or

(b) Describe in detail on the etiology, host and transmission, signs, morbidity and mortality, gross lesions, diagnosis, treatment and control of Fowl Pox.

18. (a) Management factors in disease prevention and measures to prevent the outbreak.

Or

(b) Describe in detail on the conceptual, structural and operational biosecurity principles to be followed in the commercial broiler farms.

C-4438

Sub. Code

80324

DIPLOMA EXAMINATION
COMMERCIAL BROILER PRODUCTION
MANAGEMENT
APRIL 2021 EXAMINATION
&
APRIL 2020 ARREAR EXAMINATION
Second Semester
BROILER ECONOMICS AND MARKETING
(2019 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 2 = 20)

Answer **all** questions.

1. Marketing channel.
2. Bromark.
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, by choosing either (a) or (b).

11. (a) Objectives of poultry marketing.

Or

- (b) Challenges in marketing of poultry products.

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 2000 broilers in batch system.

15. (a) Broiler Performance Efficiency Index and Broiler Feed Price Ratio.

Or

- (b) Price Spread and Benefit cost ratio.

Part C

(3 × 10 = 30)

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

16. (a) Draw a project report for rearing 1500 broilers in All in all out system.

Or

- (b) Broiler farm economic indices.

17. (a) Write an essay on broiler production parameters.

Or

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

18. (a) Write in detail on suggestions and opportunities for marketing of poultry products.

Or

- (b) Write an essay on methods and criteria for cost calculation.
