

C-5623

Sub. Code

80311

DIPLOMA EXAMINATION, APRIL 2025

First Semester

Commercial Broiler Production Management

BROILER HOUSING, EQUIPMENT AND AUTOMATION

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Floor space requirement for a broiler bird in EC house DL system is
 - (a) 0.6 sq.ft
 - (b) 0.9 sq.ft
 - (c) 1.2 sq.ft
 - (d) 1.5 sq.ft
2. Per capita consumption of broiler meat per annum in India is
 - (a) 1.3 kg
 - (b) 2.3 kg
 - (c) 3.3 kg
 - (d) 4.3 kg
3. Litter moisture level should not exceed
 - (a) 15%
 - (b) 20%
 - (c) 25%
 - (d) 30%
4. Ideal temperature for broiler rearing is
 - (a) 8-12°C
 - (b) 12-16°C
 - (c) 21-26°C
 - (d) 31-36°C

5. The best ventilated roof is
 - (a) Dome
 - (b) Gable
 - (c) Half - monitor
 - (d) Full monitor
6. Height of open-sided broiler house at eave should be
 - (a) 6 ft
 - (b) 8 ft
 - (c) 12 ft
 - (d) 16 ft
7. Minimum length of overhang in broiler house should be
 - (a) 1 ft
 - (b) 2 ft
 - (c) 3 ft
 - (d) 5 ft
8. One automatic bell drinker should be provided for
 - (a) 20 birds
 - (b) 40 birds
 - (c) 80 birds
 - (d) 120 birds
9. Optimum air velocity in EC house for broiler chicken in tropical condition is
 - (a) 1 m/s
 - (b) 2 m/s
 - (c) 3 m/s
 - (d) 4 m/s
10. The optimum downtime in broiler house is
 - (a) 1 day
 - (b) 1 week
 - (c) 2-3 weeks
 - (d) 5-6 weeks

Part B

(5 × 5 = 25)

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

11. (a) Write the floor space, feeder space and waterer space for broiler in DL system.

Or

- (b) Deep litter system Vs cage system.

12. (a) Discuss about the comfort zone for broiler production.

Or

- (b) Write in brief about principles of poultry house construction.

13. (a) List out different roofing materials with its R value.

Or

- (b) Discuss about tunnel and ridge ventilation.

14. (a) Write about different brooding equipments.

Or

- (b) Discuss about difference types of vaccinator.

15. (a) Write briefly on concept of automation in broiler industry.

Or

- (b) Write in detail about application of computer in poultry industry.

Part C

(5 × 8 = 40)

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

16. (a) Write briefly about the scope of Broiler industry in India.

Or

- (b) Explain in detail about the systems of poultry rearing.

17. (a) Discuss about water quality for broiler rearing.

Or

- (b) Explain the macro and micro climate for broiler rearing.

18. (a) Discuss about construction of EC house for broiler chicken.

Or

- (b) Discuss about litter management in broiler farm.

19. (a) Discuss in detail about different types of curtains and its management.

Or

- (b) Discuss about feeding and watering equipments for broiler chicken.

20. (a) Write in detail about application of automation in broiler rearing.

Or

- (b) Explain in detail about the automation in feed production.
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C-5624

Sub. Code

80312

DIPLOMA EXAMINATION, APRIL 2025

First Semester

Commercial Broiler Production Management

COMMERCIAL BROILER CHICKEN MANAGEMENT

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Which of the following is not a commercial broiler strain?
(a) Cobb (b) Ross
(c) Leghorn (d) Hubbard
2. BROMARK stands for
(a) Broiler Marketing Cooperative Society
(b) Broiler Marketing
(c) Broiler Marking System
(d) Broiler Marketing System
3. Ammonia level in poultry farm should not be more than
(a) 25 ppm (b) 55 ppm
(c) 35 ppm (d) 45 ppm
4. RDVF vaccination should be given on
(a) 0 day of age (b) 5-7 day of age
(c) 14 day of age (d) 21 day of age

5. The crude protein level in finisher broiler diet is
 - (a) 20% (b) 21%
 - (c) 22% (d) 23%
6. The floor space requirement of broiler per kg body weight in deep litter system is
 - (a) 0.6 sq.ft (b) 0.8 sq.ft
 - (c) 1.0 sq.ft (d) 1.2 sq.ft
7. Feeding of pellets in broilers causes
 - (a) Low wastage (b) More digestibility
 - (c) Improved FCR (d) All the above
8. General water consumption in is _____ times of feed consumed at ideal temperature.
 - (a) Four (b) Three
 - (c) Same amount (d) Two
9. The important economic trait of broiler is
 - (a) Fertility (b) Body size
 - (c) Egg production (d) Hatchability
10. The broiler strain of Suguna company is
 - (a) Ross (b) Sunbro
 - (c) Cobb (d) Lohmann

Part B

(5 × 5 = 25)

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

11. (a) Write a brief note on commercial strains of broiler. Name few commercially available broiler strains in India.

Or

- (b) Explain the role of Non Governmental Organisations (NGOs) in broiler production.

12. (a) Chick comfort.

Or

- (b) Importance of microclimate in broiler production.

13. (a) Write a brief note on body weight monitoring in broilers.

Or

- (b) Lighting management for broiler chicken.

14. (a) Differentiate between mash, pellet and crumbles.

Or

- (b) Explain briefly about water quality parameter for potable water for broiler.

15. (a) Explain briefly about the lifting efficiency in Broilers.

Or

- (b) Explain about European Efficiency Factor (EEF).

Part C

(5 × 8 = 40)

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

16. (a) Explain in detail about biosecurity.

Or

- (b) Write down the different systems of rearing in Broilers.

17. (a) Discuss in detail on terminal disinfection of broiler house.

Or

- (b) Explain in detail about feeding management in broilers.

18. (a) Discuss in detail about broiler farm equipments.

Or

- (b) Nutrient manipulation for broiler during summer.

19. (a) Write a detailed answer on winter management in Broilers.

Or

- (b) Explain in detail about water sanitation in broiler farm.

20. (a) Factors affecting feed efficiency in broiler chicken.

Or

- (b) Write a brief note on the following:

- (i) Feed Conversion Ratio (FCR)
- (ii) Livability
- (iii) Shrinkage loss
- (iv) Production cost.

C-5625

Sub. Code

80313

DIPLOMA EXAMINATION, APRIL 2025

First Semester

Commercial Broiler Production Management

**CHICKEN ANATOMY, INCUBATION AND HATCHERY
MANAGEMENT**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Renewal of old feathers with new feathers is called as
 - (a) Clutch
 - (b) Molting
 - (c) Pause
 - (d) Oviposition
2. The comb type in White Leghorn layer is
 - (a) Single comb
 - (b) Rose comb
 - (c) Wallnut comb
 - (d) V shaped comb
3. Bile is essential for digestion of
 - (a) Carbohydrate
 - (b) Protein
 - (c) Fat
 - (d) Vitamins
4. Fertilization of ovum occurs in the
 - (a) Uterus
 - (b) Isthmus
 - (c) Magnum
 - (d) Infundibulum

5. Hormone responsible for maturation of ovarian follicle is
(a) FSH (b) LH
(c) Prolactin (d) Androgen
6. Number of air sacs present in chicken
(a) 7 (b) 9
(c) 11 (d) 13
7. For effective fumigation the temperature of the chamber should be around
(a) 35°F (b) 45°F
(c) 65°F (d) 75°F
8. The RH in egg storage room should be
(a) 35% (b) 55%
(c) 75% (d) 95%
9. Chicks are vaccinated in hatchery through Sub-cutaneous route for
(a) IBD (b) IB
(c) Ranikhet Disease (d) Mareks Disease
10. The incubation period for ostrich egg
(a) 21 days (b) 28 days
(c) 42 days (d) 52 days

Part B

(5 × 5 = 25)

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

11. (a) Write about different types of comb.

Or

- (b) Discuss in brief about American and English class of chicken.

12. (a) Explain about excretory system of chicken.

Or

- (b) Draw the diagram of digestive system and mention the different parts.

13. (a) Discuss about metabolic alkalosis.

Or

- (b) Explain the internal structure of chicken egg with diagram.

14. (a) Write about selection and care of hatching egg.

Or

- (b) Discuss the factors affecting the Hatchability.

15. (a) Discuss on feather sexing and vent sexing.

Or

- (b) Discuss about contact incubator.

Part C

(5 × 8 = 40)

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

16. (a) Classify the Integumentary system of poultry and write in detail about its role on thermoregulation.

Or

- (b) Explain regulation of body temperature in poultry in detail.

17. (a) Discuss about skeletal system of chicken.

Or

- (b) Explain in detail about female reproductive system with diagram.

18. (a) Discuss in detail about airsacs and its functions.

Or

- (b) Discuss about different types of vaccines and the route of administration.

19. (a) Discuss detail on physical requirement for incubation.

Or

- (b) Flow chart of hatchery routine operations.

20. (a) Discuss the different types of incubator based on location of fan.

Or

- (b) Discuss about in-ovo vaccination with its advantage and disadvantages.

C-5626

Sub. Code

80321

DIPLOMA EXAMINATION, APRIL 2025

Second Semester

Commercial Broiler Production Management

**BROILER NUTRITION AND FEED MILLING
TECHNOLOGY**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** the questions.

1. Which of the following is considered a primary energy source in conventional poultry feed?
(a) Fish meal (b) Soybean meal
(c) Maize (d) Groundnut cake
2. According to BIS standards, the minimum crude protein requirement for broiler starter feed is:
(a) 18% (b) 20%
(c) 22% (d) 24%
3. Which form of feed is generally considered to improve feed conversion ratio (FCR) in broilers?
(a) Mash feed (b) Pellet feed
(c) Crumble feed (d) Whole grain feed
4. Which of the following nutritional deficiency diseases is caused by a lack of vitamin D in broilers?
(a) Rickets (b) Perosis
(c) Ascites (d) Coccidiosis

5. Which of the following feed additives is primarily used to improve gut health and nutrient absorption in poultry?
- (a) Antibiotics (b) Probiotics
(c) Antioxidants (d) Toxin binders
6. Which type of mycotoxin is commonly found in improperly stored grains and poses a significant risk to poultry health?
- (a) Aflatoxin (b) Cyanotoxin
(c) Fumonisin (d) Ochratoxin
7. Which process in feed production is responsible for converting ground mash into compact pellets?
- (a) Mixing (b) Conditioning
(c) Pelletizing (d) Sieving
8. In feed storage, which of the following conditions is most critical to prevent the growth of mold and mycotoxins?
- (a) Low temperature (b) High humidity
(c) Proper ventilation (d) High light exposure
9. Which of the following is a common sensory method used to evaluate the freshness and quality of feed ingredients?
- (a) Chemical analysis (b) Visual inspection
(c) Moisture testing (d) pH measurement
10. In feed sampling, which technique ensures a representative sample of a bulk feed lot?
- (a) Random sampling
(b) Stratified sampling
(c) Composite sampling
(d) Systematic sampling

Part B

(5 × 5 = 25)

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

11. (a) Discuss the classification of feed ingredients used in poultry nutrition.

Or

- (b) Explain the importance of vegetable and animal protein sources in poultry feed.

12. (a) Compare the different types and forms of feed used in poultry nutrition.

Or

- (b) Describe the role of phase feeding in commercial broiler production.

13. (a) Classify feed additives used in poultry nutrition and describe their roles.

Or

- (b) What are mycotoxins, and how can they be prevented in poultry feed?

14. (a) What is the role of conditioning in the feed production process, and how does it affect pellet quality?

Or

- (b) Describe the purpose of sieving in feed production and its effect on feed quality.

15. (a) What is the role of physical and sensory evaluation in feed quality control?

Or

- (b) Discuss the significance of sampling techniques in ensuring feed quality and accuracy.

Part C

(5 × 8 = 40)

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

16. (a) Describe the nutrient requirements for broilers at different stages of growth and the corresponding BIS standards for feed formulation.

Or

- (b) Evaluate the use of non-conventional feed ingredients as energy and protein sources in poultry nutrition.

17. (a) Discuss the nutritional deficiency diseases and metabolic disorders commonly observed in broilers and their prevention.

Or

- (b) Describe the management strategies for feeding and watering commercial broilers during summer and winter seasons.

18. (a) Discuss the role of probiotics, prebiotics, and enzymes in improving poultry nutrition and gut health.

Or

- (b) Evaluate the classification and impact of feed toxins, including mycotoxins and pesticide toxins, on poultry health.

19. (a) Analyze the feed production methods including grinding, mixing, and pelletizing, and their impact on feed quality.

Or

- (b) Evaluate the importance of feed storage and its impact on feed quality and safety.

20. (a) Evaluate the common adulterants found in poultry feed ingredients and their impact on feed quality.

Or

- (b) Analyze the procedures and importance of quality control in feed milling.

C-5627

Sub. Code

80322

DIPLOMA EXAMINATION, APRIL 2025

Second Semester

Commercial Broiler Production Management

**BROILER FLOCK HEALTH, DISEASE AND
BIOSECURITY**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Section A

(10 × 1 = 10)

Answer **all** questions.

1. Which of the following is a water sanitizer
 - (a) Chlorine
 - (b) Piperazine
 - (c) Phenol
 - (d) Penicillin
2. Second dose of IBD vaccination should be given in broilers at the age of
 - (a) 5 – 7 days
 - (b) 12 – 14 days
 - (c) 21 – 23 days
 - (d) 28 – 30 days
3. Infectious Bursal disease is caused by
 - (a) RNA virus
 - (b) Orthomyxovirus
 - (c) Paramyxovirus
 - (d) Herpes virus
4. Marek's disease is caused by
 - (a) Corona virus
 - (b) Orthomyxovirus
 - (c) Paramyxovirus
 - (d) Herpes virus

5. Vertically transmitted disease of poultry is
(a) Colibacillosis (b) Fowl cholera
(c) Salmonellosis (d) Marek's disease
6. Water borne disease is
(a) Colibacillosis (b) Fowl cholera
(c) Avian leucosis (d) Marek's disease
7. Caecal coccidiosis is caused by
(a) *Eimeria necatrix* (b) *Eimeria tenella*
(c) *Eimeria bruneti* (d) *Eimeria acervulina*
8. Deficiency of Vitamin B2 in chicks induces
(a) Encephalomalacia
(b) Rickets
(c) Curled toe paralysis
(d) Anaemia
9. Didecyl dimethyl ammonium chloride is used as water sanitizer at the dose rate of
(a) 1 ml in 5 litres of drinking water
(b) 1 ml in 10 litres of drinking water
(c) 2 ml in 5 litres of drinking water
(d) 2 ml in 10 litres of drinking water
10. Live vaccines should be stored at the temperature of
(a) Room temperature
(b) 18°C
(c) 4°C
(d) -18°C or less

Section B

(5 × 5 = 25)

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

11. (a) Measures to be taken during outbreak of diseases.

Or

- (b) Write briefly about water sanitizers commonly used in the broiler farms.

12. (a) Write briefly about clinical signs of Ranikhet disease.

Or

- (b) Write briefly preventive measures against Avian Influenza.

13. (a) Explain briefly about colibacillosis.

Or

- (b) Write briefly about prevention and control of CRD.

14. (a) Explain briefly about Gout.

Or

- (b) Discuss about Intestinal cestodes.

15. (a) Explain briefly about live and killed vaccines.

Or

- (b) Discuss about precautions to be taken by vaccinators.

Section C

(5 × 8 = 40)

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

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

Or

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

17. (a) Discuss in detail about Infectious bronchitis.

Or

- (b) Discuss in detail about Infectious coryza in chicken.

18. (a) Discuss in detail about Marek's disease in poultry.

Or

- (b) Discuss about aflatoxicosis and its prevention and control measures.

19. (a) Write in detail about ectoparasites and control measures in broiler chicken.

Or

- (b) Write in detail about Leechi disease in broilers.

20. (a) Describe in detail about water sanitization in broiler farms.

Or

- (b) Describe in detail about types of vaccine and vaccination schedule for broilers.

C-5628

Sub. Code

80323

DIPLOMA EXAMINATION, APRIL 2025.

Second Semester

Commercial Broiler Production Management

BROILER PROCESSING AND MARKETING

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** the questions.

1. Live shrinkage from the production point to the slaughtering point in broilers is
 - (a) 1-5 %
 - (b) 5-10 %
 - (c) 10-15 %
 - (d) 15-20 %
2. Parts of giblets are
 - (a) Heart, liver and lungs
 - (b) Heart, liver and spleen
 - (c) Heart, liver and duodenum
 - (d) Heart, liver and gizzard
3. Preservation of broiler meat is done by
 - (a) Temperature control
 - (b) Moisture control
 - (c) Direct microbial inhibition
 - (d) All the above

4. Patchy discolouration on the surface of the frozen offal (liver and kidney) due to loss of moisture from surface tissues is known as
 - (a) Meat darkening
 - (b) Cold store taint
 - (c) Freezer burn
 - (d) Loss of bloom
5. The normal protein (per cent) content in dried poultry waste is
 - (a) 10
 - (b) 20
 - (c) 30
 - (d) 40
6. A long-standing method that turns poultry waste into a nutrient-rich soil amendment is
 - (a) Biogas production
 - (b) Composting
 - (c) Incineration
 - (d) Vermicomposting
7. Various stages of production are associated with each other in poultry marketing is called as
 - (a) Integration
 - (b) Horizontal integration
 - (c) Vertical integration
 - (d) All the above
8. The best marketing channel by which the producer gets more profit is
 - (a) Direct marketing
 - (b) Indirect marketing
 - (c) Single marketing
 - (d) Multiple marketing
9. Feed withdrawal period in the grown out house for broilers before catching is
 - (a) 2 to 5 hours
 - (b) 5 to 8 hours
 - (c) 8 to 11 hours
 - (d) 11 to 14 hours
10. Committee which fixes the whole sale broiler rate at farm level in Tamil Nadu is
 - (a) BROMARK
 - (b) APEDA
 - (c) BCC
 - (d) EIC

Part B

(5 × 5 = 25)

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

11. (a) Importance of poultry meat processing industry in India.

Or

- (b) Carcass grading in processing plants.

12. (a) Meat quality deterioration.

Or

- (b) Transportation of poultry meat.

13. (a) Use of effluent treatment plant in a poultry processing unit.

Or

- (b) Composition of poultry manure.

14. (a) Customer complaints handling in poultry processing plant.

Or

- (b) Wet marketing in broiler industry in India.

15. (a) Role of NMPPB on broiler marketing.

Or

- (b) Transportation of live broilers.

Part C

(5 × 8 = 40)

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

16. (a) Discuss in detail about principles and flow chart of poultry meat processing.

Or

- (b) Write in detail on packaging of poultry meat.

17. (a) Discuss in detail about quality preservation of poultry meat.

Or

- (b) Discuss in detail about regulations for import and export of poultry products.

18. (a) Write in detail about various types of waste from poultry industry and their utility.

Or

- (b) Write in detail about dead bird disposal in a poultry farm.

19. (a) Discuss in detail about integration in broiler production.

Or

- (b) Discuss in detail about management of broiler.

20. (a) Role of government on broiler marketing.

Or

- (b) List out the challenges in broiler marketing