

C-5900

Sub. Code

80113

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025.

First Semester

Poultry Science

**POULTRY PRODUCTION SYSTEMS, HOUSING AND
AUTOMATION**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. The Zoological Name of chicken is
 - (a) *Numida meleagris*
 - (b) *Gallus gallus domesticus*
 - (c) *Meleagris gallopavo*
 - (d) *Struthio camelus*

2. The width of a conventional poultry house should be not exceed
 - (a) 7-8 m
 - (b) 10-12 m
 - (c) 12-14 m
 - (d) 16-18 m

3. The minimum distance of a new farm from existing farms should be
 - (a) 1 km
 - (b) 2 km
 - (c) 3 km
 - (d) 4 km

4. Construction coefficient (%) for an ideal farm is
- (a) 10-15 (b) 20-25
(c) 30-35 (d) 40-45
5. This roof type is more suitable for the tropics
- (a) Shed (b) Gable
(c) Half Monitor (d) Full Monitor
6. The side wall of the poultry house should be built this height from the floor in case of a deep litter house
- (a) 0.5 ft (b) 1 ft
(c) 1.5 ft (d) 2 ft
7. This is the most frequently used type of brooders
- (a) Automatic Brooder
(b) Infrared Brooding
(c) Gas Brooders
(d) Hover Type
8. Sprinklers can reduce the inside house temperature by as much as
- (a) 5°F (b) 10°F
(c) 15°F (d) 20°F
9. Main type of Automatic Feed System is
- (a) Trough and Chain System
(b) Conveyor and Pan System
(c) (a) and (b)
(d) None of the above

10. These incubators revolutionized the poultry industry by enabling supply to large number of chicks
- (a) Hot Water Incubator
 - (b) Kerosene Incubator
 - (c) Both (a) and (b)
 - (d) Forced Draft Incubator

Part B

(5 × 5 = 25)

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

11. (a) All in All out Vs Multiple batch system.
- Or
- (b) Floor space requirements for layers in different cages.
12. (a) Importance of comfort zone in brooding of chicks.
- Or
- (b) Poultry farm location.
13. (a) Raised platform cage houses.
- Or
- (b) Tunnel ventilation system.
14. (a) Conventional cages Vs. Furnished cages.
- Or
- (b) A type cages Vs. H type cages.
15. (a) Automation in egg collection.
- Or
- (b) Automation in manure collection system.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail on backyard system of poultry rearing.

Or

- (b) Write in detail on intensive system of poultry rearing.

17. (a) Discuss in detail about micro environment on poultry production.

Or

- (b) Write in detail about importance of poultry housing.

18. (a) Write in detail about environmentally controlled housing system for poultry.

Or

- (b) List out different housing systems with their advantages and disadvantages.

19. (a) List out different cage systems with their advantages and disadvantages.

Or

- (b) Discuss in detail about equipments used to keep the poultry houses cool during summer season.

20. (a) Write in detail about concept and applications of automation in poultry production.

Or

- (b) Write in detail about automation in egg and meat processing.

C-5901

Sub. Code

80115

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

First Semester

Poultry Science

APPLIED AVIAN ANATOMY AND PHYSIOLOGY

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. All meat lines on the male side include genes derived from
 - (a) New Hampshire
 - (b) Barred Plymouth rock
 - (c) Cornish
 - (d) Light Sussex

2. White skin is preferred in
 - (a) India
 - (b) France
 - (c) England
 - (d) USA

3. The heart of chicken has four chambers namely
 - (a) Two atria and two ventricles
 - (b) 1 atria and 3 ventricles
 - (c) Three atria and one ventricle
 - (d) 4 atria and 0 ventricle

4. Heart rate in pigeon is
(a) 200 beats/min (b) 210 beats/min
(c) 220 beats/min (d) 230 beats/min
5. Which is the frame that supports the body and to which the muscles are attached?
(a) Skin (b) Skeleton
(c) Head (d) Shanks
6. Birds possess a pair of extra bones in the shoulder area which are called as
(a) Corocoids (b) Keel bone
(c) Breast bone (d) Medullary bone
7. Amylase is secreted in which part of the digestive tract?
(a) Salivary glands in mouth
(b) Pancreas
(c) Small Intestine
(d) Crop
8. The number of taste buds present in the mouth of chicken is
(a) 250-350 (b) 150-250
(c) 350-450 (d) 450-550
9. The function of Islets of Langerhans is to
(a) To increase the production of gastric juice
(b) Produce insulin and glycogen
(c) Regulate the metabolic rate
(d) To inhibit the broodiness
10. The hormone responsible for broodiness in chicken is
(a) LH (b) FSH
(c) Prolactin (d) Oxytocin

Part B

(5 × 5 = 25)

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

11. (a) Explain briefly about the lungs, bronchi and their functions.

Or

- (b) Write briefly about the role of skin and feathers.

12. (a) Explain briefly about the types of blood vessels.

Or

- (b) Write briefly about the structure and functions of heart with a suitable diagram.

13. (a) Write briefly about the role of kidney in poultry.

Or

- (b) Explain briefly about the wing and limb bones.

14. (a) Explain the male reproductive system of poultry with a neat diagram.

Or

- (b) Draw neatly the digestive system of poultry and explain briefly about the mouth and oesophagus.

15. (a) Explain briefly about the GALT.

Or

- (b) Explain briefly about the Bursa of Fabricius and thymus.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail on the feather patterns and feather tracts of poultry with neat diagrams.

Or

- (b) Explain in detail on the classification and breeds of chicken.

17. (a) Write in detail on the nasal cavity, larynx, trachea and their functions.

Or

- (b) Describe in detail on the types of blood vessels and components of blood.

18. (a) Describe in detail on the muscular system of chicken.

Or

- (b) Describe in detail on the different types of bones.

19. (a) Write in detail on the female reproductive system in poultry.

Or

- (b) Write in detail on the physiology of egg production.

20. (a) Describe in detail about the principles of poultry behaviour.

Or

- (b) Describe in detail about the immune system of poultry.

C-5902

Sub. Code

80123

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Second Semester

Poultry Science

**POULTRY NUTRITION AND
FEED MILLING TECHNOLOGY**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. What is a key benefit of utilizing non-conventional feed resources in animal diets?
 - (a) High cost
 - (b) Improved digestibility
 - (c) Sustainability and reduced feed costs
 - (d) High protein content

2. Which of the following is most likely to limit the digestibility of protein in non-conventional feedstuffs?
 - (a) High fiber content
 - (b) Presence of anti-nutritional factors
 - (c) Low moisture content
 - (d) High carbohydrate content

3. Which factor is most likely to influence the nutrient digestibility of feed when switching from mash to pellet form in poultry?
 - (a) Feed particle size
 - (b) Feed color
 - (c) Feed cost
 - (d) Feed moisture content

4. In which of the following scenarios would phase feeding be most beneficial?
 - (a) When feeding poultry in a single growth stage
 - (b) To adjust nutrient levels according to different production phases
 - (c) When feeding birds with a fixed nutrient composition diet
 - (d) For feeding only during winter months

5. Which of the following is a common mycotoxin found in feed that can cause liver damage in poultry?
 - (a) Aflatoxin
 - (b) Ochratoxin
 - (c) Dioxin
 - (d) Fumonisin

6. Which type of feed additive is primarily used to enhance the digestibility of feed and improve nutrient absorption?
 - (a) Antioxidants
 - (b) Probiotics
 - (c) Toxin binders
 - (d) Emulsifiers

7. In feed mill operations, which processing stage involves applying steam and moisture to improve pellet quality and nutrient digestibility?
 - (a) Grinding
 - (b) Mixing
 - (c) Conditioning
 - (d) Cooling

8. Which type of feed mill equipment is designed to reduce the size of grains and other feed ingredients into smaller particles?
 - (a) Pellet mill
 - (b) Hammer mill
 - (c) Conveyor
 - (d) Sifter

9. What is the primary goal of implementing Good Manufacturing Practices (GMP) in feed mills?
 - (a) To enhance marketing strategies
 - (b) To ensure biosecurity
 - (c) To maintain consistent feed quality and safety
 - (d) To reduce production costs

10. Which regulation ensures that feed manufacturing practices comply with both national and international standards for safety and quality?
 - (a) Organic feed certification
 - (b) Designer feed guidelines
 - (c) GMP and HACCP protocols
 - (d) SPF egg production standards

Part B

(5 × 5 = 25)

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

11. (a) Explain the classification of nutrients and their importance in animal nutrition.

Or

- (b) Describe the difference between conventional and unconventional feed resources, providing examples of each.

12. (a) How do phase feeding and precision feeding optimize nutrient intake and improve performance for commercial layers and broilers?

Or

- (b) How do feeding strategies for ducks, turkeys and Japanese quails vary across different seasons?

13. (a) Discuss the classification of feed toxins and their impact on poultry health, including strategies for their prevention.

Or

- (b) Explain how pesticide toxicity affects poultry and describe practical measures to reduce its risk in feed management.

14. (a) Discuss the principles of least-cost formulation in poultry feed and how it helps in optimizing feed ingredients while maintaining nutritional quality.

Or

- (b) Explain the key differences between horizontal and vertical mixers in feed milling and their impact on the uniformity of feed mixture.

15. (a) Describe the role of physical and chemical evaluation in ensuring the safety and quality of poultry feed.

Or

- (b) Discuss the importance of bio security measures in maintaining feed quality and preventing contamination in poultry feed mills.

Part C

(5 × 8 = 40)

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

16. (a) Discuss the importance of macro and micro-nutrients in Poultry diets and the effects of their deficiencies.

Or

- (b) Evaluate the benefits and challenges of using conventional and non-conventional feed resources in poultry nutrition.

17. (a) Evaluate the impact of feed form (mash, pellet, crumble) and feeding strategies (ad libitum, restricted, phase) on poultry performance.

Or

- (b) Analyze common nutritional deficiencies and metabolic disorders in poultry and propose strategies to manage these issues.

18. (a) Analyze the effects of mycotoxins like aflatoxin and ochratoxin on poultry health and performance, and discuss strategies for their prevention and management.

Or

- (b) Examine the roles and benefits of feed supplements and additives such as synbiotics, phytobiotics, and toxin binders in enhancing poultry nutrition, growth, and health.

19. (a) Evaluate how feed mill layout and equipment choices, impact the efficiency and quality of poultry feed production.

Or

- (b) Discuss the effects of pelleting and crumbling technologies on poultry feed digestibility and performance, and explain the importance of packaging and labeling in preserving feed quality.
20. (a) Discuss how GMP and HACCP protocols control hazards and ensure compliance with organic, designer, and SPF egg production standards in feed manufacturing.

Or

- (b) Discuss the impact on maintenance of high-quality poultry feed and ensure compliance with regulatory requirements.
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C-5903

Sub. Code

80125

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Second Semester

Poultry Science

INCUBATION AND HATCHERY MANAGEMENT

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** the questions.

- Humidity % required at the time of storage of eggs is
 - 30%
 - 50%
 - 75%
 - 95%
- The gap between incubator machine and wall should be
 - 10 feet
 - 15 feet
 - 20 feet
 - 3 feet
- Average size of eggs for incubation should be
 - 75 – 80 g
 - 45 – 50 g
 - 50 – 55 g
 - 35 – 40 g
- Temperature in the setter should be around
 - 97.50°F to 97.75°F
 - 96.50°F to 96.75 °F
 - 98.50°F to 98.75°F
 - 99.50 °F to 99.75 °F

5. For fumigation, one x concentration means 20 g of KMnO_4 with _____ ml of formalin
- (a) 60 ml (b) 80 ml
(c) 40 ml (d) 100 ml
6. Keeping the chicks for 3-5 hours in the boxes after hatching is known as
- (a) Softening (b) Hardening
(c) Loading (d) Moistening
7. The weight loss of chicken egg through it 19 days of incubation is (%)
- (a) 11 (b) 5
(c) 21 (d) 25
8. Incubation period of Japanese quail egg is
- (a) 26 days (b) 18 days
(c) 21 days (d) 28 days
9. Sticky chicks are formed due to
- (a) Improper temperature and RH
(b) Position of eggs placed setter
(c) Deficiency of vitamins
(d) Improper ventilation
10. The CO_2 level is always less than _____% when eggs are in incubated
- (a) 5.0 (b) 0.5
(c) 0.05 (d) 0.005

Part B

(5 × 5 = 25)

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

11. (a) Storage of hatching eggs.

Or

- (b) Fumigation of hatching eggs.

12. (a) Effects of temperature on hatchability of eggs.

Or

- (b) Position and turning of hatching eggs in the setter and hatcher.

13. (a) Automation in hatchery operation.

Or

- (b) Multistage incubators.

14. (a) Pedigree hatching.

Or

- (b) Various sexing methods.

15. (a) Write about analysis of poor hatchability.

Or

- (b) Malformation and malposition of embryos.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail about site selection, layout and draw a flow diagram of hatchery building.

Or

- (b) Discuss in detail about selection and care of hatching eggs.

17. (a) Write in detail about principles of incubation.

Or

(b) Write in detail about chicken embryo development.

18. (a) Classify the incubators and write about commonly used one in commercial sectors.

Or

(b) Explain in detail about setter and hatcher management.

19. (a) Discuss in detail about hatchery operations.

Or

(b) Explain in detail about *in-ovo* and *in-hatch* vaccinations and medication.

20. (a) Write in detail about measures to evaluate chick quality.

Or

(b) Discuss about the biosecurity measures to be taken in the hatchery.

C-5904

Sub. Code

80133

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Third Semester

Poultry Science

PRINCIPLES OF POULTRY BREEDING

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Which of the following is a genetic classification of poultry based on origin
 - (a) Strain
 - (b) Class
 - (c) Breed
 - (d) Variety
2. Chromosome number in chickens
 - (a) 38 pairs
 - (b) 39 pairs
 - (c) 40 pairs
 - (d) 41 pairs
3. What is the Law of Segregation in Mendelian inheritance?
 - (a) Alleles of different traits separate independently
 - (b) Each organism has two alleles for each gene
 - (c) Alleles of the same gene separate during gamete formation
 - (d) Traits are inherited from parents only

4. Which of the following describes dominant traits
 - (a) Traits that are expressed only in homozygous form
 - (b) Traits that are expressed even in heterozygous form
 - (c) Traits that cannot be inherited
 - (d) Traits that are only inherited by females

5. What is individual selection in poultry breeding
 - (a) Selecting the best individual birds based on performance
 - (b) Selecting birds from different flocks
 - (c) Selecting based on family performance
 - (d) Mating birds within the same breed

6. Purpose of pedigree analysis in poultry breeding
 - (a) To evaluate the offspring's performance
 - (b) To evaluate the individual performance
 - (c) To evaluate the performance of ancestors
 - (d) To evaluate the performance of half-sibs

7. Which of the following methods is used for selecting poultry based on phenotypic values?
 - (a) Tandem method
 - (b) Independent culling levels
 - (c) Selection index
 - (d) All of the above

8. What does the Independent Culling Levels method involve?
- (a) Setting standards for multiple traits
 - (b) Selecting birds based on genetic analysis
 - (c) Selecting the best individual from a flock
 - (d) Only selecting males for breeding
9. Which type of pure line stock used in poultry breeding?
- (a) Great Grandparent stock
 - (b) Hybrid
 - (c) Crossbred
 - (d) Commercial layer
10. The primary goal of poultry breeding for meat production
- (a) Maximizing egg production
 - (b) Improving feed conversion ratio and growth rate
 - (c) Enhancing feather color
 - (d) Reducing disease resistance

Part B

(5 × 5 = 25)

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

11. (a) Define breed and variety with example.

Or

- (b) Explain about qualitative traits with example.

12. (a) Explain about Laws of segregation and law of independent assortment.

Or

(b) Describe the concept of homozygous and heterozygous individuals.

13. (a) Discuss the difference between different inbreeding methods in poultry.

Or

(b) Explain about progeny testing.

14. (a) Explain the Tandem Method and its applications in poultry breeding.

Or

(b) Selection for egg type lines in poultry.

15. (a) Describe the advantage and disadvantages in artificial insemination.

Or

(b) Discuss the objectives of poultry breeding for meat and egg production.

Part C

(5 × 8 = 40)

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

16. (a) Elucidate the auto sexing method and its impact on poultry farming.

Or

- (b) Write about economic traits of commercial layers and broilers.

17. (a) Describe the inheritance of sex-linked traits and provide examples in poultry.

Or

- (b) Discuss hybridization as a method of improving genetic traits in poultry.

18. (a) Describe the Independent Culling Levels method of selection.

Or

- (b) Discuss the various methods of breeding and their advantages in poultry production.

19. (a) Write the advantages and disadvantages of different selection methods in poultry breeding.

Or

- (b) Breeding program of egg and meat type birds.

20. (a) Evaluate the breeding methods used for improving meat and egg production in poultry.

Or

- (b) Explain how commercial hybrids contribute to the efficiency of poultry farms in producing meat and eggs.
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5. During laying period, the light hours should be
- (a) 12 (b) 18
(c) 16 (d) 24
6. When there is no mortality
- (a) $HDEP < HHEP$
(b) $HDEP = HHEP$
(c) $HDEP > HHEP$
(d) None
7. The ratio of male and females in case of meat-type breeder
- (a) 1:8 (b) 1: 12
(c) 1: 10 (d) 1: 15
8. Reason for loss of uniformity of body weight in breeder pullets is
- (a) Large flock size
(b) Poor feed distribution
(c) Inadequate feeding
(d) All the above
9. Introducing new roosters into an older breeder flock is called as
- (a) Dubbing (b) Spiking
(c) Debeaking (d) None
10. Semen concentration required per insemination in chicken is
- (a) 500 million (b) 1 million
(c) 200 million (d) 10 million

Section B

(5 × 5 = 25)

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

11. (a) Commercial broiler and layer strains.

Or

- (b) Pure line breeders.

12. (a) Write about beak trimming.

Or

- (b) Selection of males for breeding.

13. (a) Housing requirement of broiler breeder.

Or

- (b) Spiking of males.

14. (a) Fumigation of hatching eggs.

Or

- (b) Packing and dispatch of hatching eggs.

15. (a) Hen day egg production.

Or

- (b) Hatchability.

Section C

(5 × 8 = 40)

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

16. (a) Write about present status of breeder industry.

Or

- (b) Explain about breeder chicken integration.

17. (a) Write in detail about brooding of chicks.

Or

(b) Explain in detail about vaccination and medication schedule for breeder chicks.

18. (a) Explain in detail about broiler breeding management in different housing system.

Or

(b) Write about lighting management of breeders during laying.

19. (a) Write in detail about factors affecting fertility.

Or

(b) Write about seasonal management of breeder flocks.

20. (a) Write in detail about records in breeder production and management.

Or

(b) Calculate the cost of production of hatching eggs.

C-5906

Sub. Code

80136

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Third Semester

Poultry Science

CLIMATOLOGY AND POULTRY PRODUCTION

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. The study of ancient climates is called as
 - (a) Paleoclimatology
 - (b) Climatology
 - (c) Both (a) and (b)
 - (d) None of the above
2. Which climate is found in Western ghats and coastal regions?
 - (a) Tropical arid climate
 - (b) Tropical Savanna climate
 - (c) Equatorial climate
 - (d) Subtropical steppe climate
3. A local set of atmospheric conditions that differ from those in the surrounding areas, often slightly but sometimes substantially is called as
 - (a) Macroclimate
 - (b) Microclimate
 - (c) Both (a) and (b)
 - (d) None

4. Green house gases comprise
- (a) carbondioxide, methane and nitrous oxide
 - (b) carbondioxide, methane and nitric oxide
 - (c) Both (a) and (b)
 - (d) None of the above
5. When environmental temperature shoots beyond 95°F, feed water ratio in poultry may increase up to
- (a) 1:1.5
 - (b) 1:2
 - (c) 1:3
 - (d) 1:4
6. Ideal temperature for poultry rearing is 18-28°C
- (a) 16-18°C
 - (b) 28-30°C
 - (c) 18-28°C
 - (d) None
7. The long axis of the poultry house should be oriented in _____ direction to avoid direct sunlight in the tropics
- (a) East-west
 - (b) North-south
 - (c) Both (a) and (b)
 - (d) None
8. Addition of 0.25% salts to drinking water like _____ increase the water consumption.
- (a) Magnesium carbonate
 - (b) Magnesium sulphate
 - (c) Sodium carbonate
 - (d) None
9. Which one of pollutants did not have elements?
- (a) Air pollution
 - (b) Water pollution
 - (c) Land pollution
 - (d) Noise pollution
10. Recent disaster of landslide occurred in
- (a) Vayanadu
 - (b) Kuttanadu
 - (c) Kollam
 - (d) Alleppey

Part B

(5 × 5 = 25)

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

11. (a) Explain briefly about Koeppen's Scheme of Climatic Zones of India.

Or

- (b) Explain briefly about the factors causing climatic regions in India.

12. (a) Differentiate macro and micro climate.

Or

- (b) Explain briefly about the effect of temperature on poultry production.

13. (a) How will you measure and assess the temperature inside the poultry house?

Or

- (b) Brief about monsoon management in commercial layers.

14. (a) Discuss on medication procedure during summer.

Or

- (b) Explain briefly about disaster management in poultry farming.

15. (a) Explain and differentiate between floods and drought.

Or

- (b) Explain briefly about nuclear disasters

Part C

(5 × 8 = 40)

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

16. (a) What is natural resource management? Why it is important? Explain in detail on the types of natural resource management.

Or

- (b) What is ecosystem? Explain in detail on ecological pyramids and ecolosuccession.

17. (a) Explain in detail on the climatic factors affecting poultry production in housed conditions.

Or

- (b) Write an essay on air composition, speed and movement.

18. (a) Explain in detail on natural heat resistant breeds/varieties developed in India.

Or

- (b) Write in detail about the importance of agrometeorology and weather forecasting for poultry.

19. (a) How does summer and winter affects the production performance in poultry and what are all the steps to be taken for standard production in commercial poultry?

Or

- (b) Discuss in detail on climatic adaptation measures for poultry.

20. (a) Define the environmental pollution and explain its different types and how to control environmental pollution?

Or

- (b) Write in detail on natural disasters.

C-5907

Sub. Code

80143

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Fourth Semester

Poultry Science

**COMMERCIAL BROILER CHICKEN PRODUCTION
MANAGEMENT**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

Multiple choice questions :

1. National Meat and Poultry Processing Board was established in the year
 - (a) 2008
 - (b) 2009
 - (c) 2010
 - (d) 2011

2. Which is not the commercial broiler strain?
 - (a) BV300
 - (b) Cobb
 - (c) Lohman
 - (d) Anak 2000

3. Brooding temperature for broiler chicks has to be reduced every week by
 - (a) 3 degrees Fahrenheit
 - (b) 5 degrees Fahrenheit
 - (c) 7 degrees Fahrenheit
 - (d) 9 degrees Fahrenheit

4. Floor space requirement for broiler chicks during 8 to 14 days
 - (a) 0.6 sq.ft/chick
 - (b) 0.5 sq.ft/chick
 - (c) 0.8 sq.ft/chick
 - (d) 1.2 sq.ft/chick

5. Broiler finisher has to be given to the broilers till marketing from
 - (a) 22nd day
 - (b) 29th day
 - (c) 24th day
 - (d) 20th day

6. Average FCR during fourth week of broiler
 - (a) 1.40
 - (b) 1.36
 - (c) 1.46
 - (d) 1.50

7. Desirable sulphate level in drinking water should be
- (a) 10 mg/litre
 - (b) 14 mg/litre
 - (c) 125 mg/litre
 - (d) 32 mg/litre
8. One drinker is sufficient for
- (a) 30 growers
 - (b) 40 growers
 - (c) 50 growers
 - (d) 60 growers
9. Litter moisture should be maintained in broiler houses
- (a) 20 to 25%
 - (b) 25-27%
 - (c) 18 to 20%
 - (d) 27-30%
10. The permissible mortality percentage in broiler farming
- (a) 10
 - (b) 4
 - (c) 8
 - (d) 2

Part B

(5 × 5 = 25)

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

11. (a) Write briefly about role of NMPPB in broiler production.

Or

- (b) Explain briefly about all in all out system of rearing with its advantages and disadvantages.

12. (a) Write briefly about brooding equipment used in the broiler farming.

Or

- (b) Write briefly about curtain arrangements in the brooder house.

13. (a) Explain briefly about body weight monitoring in broiler chicken.

Or

- (b) Write briefly about watering management of broiler chicken.

14. (a) Write briefly about water sanitizers for broilers.

Or

- (b) Explain briefly about monsoon management of broiler chicken.

15. (a) Write briefly about production cost of broiler chicken.

Or

- (b) Explain briefly about converted feed conversion ratio of broiler chicken.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail about system of integration in broiler industry.

Or

- (b) Write in detail about commercial broiler strains available in India with their production performance.

17. (a) Describe in detail about preparation of brooder house to receive the broiler chicks.

Or

- (b) Describe in detail about feeding and watering management in broiler farm.

18. (a) Discuss in detail about feeder and drinker management and their arrangements in broiler farming.

Or

- (b) Discuss in detail on drinker management in broilers.

19. (a) Describe in detail about pipe line and tank cleaning in a broiler farm.

Or

- (b) Describe in detail about management of broiler chicken during winter season.

20. (a) Write in detail on performance efficiency indices in broilers.

Or

(b) Discuss in detail on water management in broiler farms.

C-5908

Sub. Code

80144

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Fourth Semester

Poultry Science

**POULTRY DISEASES, FLOCK HEALTH AND
BIOSECURITY**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Which one of the following lesions is pathognomonic for Ranikhet disease?
 - (a) Proventriculus may show haemorrhagic patch at its junction with gizzard
 - (b) Pinpoint haemorrhages in the proventriculus
 - (c) Both (a) and (b)
 - (d) None

2. Avian influenza was first seen in
 - (a) Italy
 - (b) France
 - (c) India
 - (d) Pakistan

3. The most important lesion in CRD is
- (a) Swollen face
 - (b) Petechial haemorrhages on heart
 - (c) Cloudy appearance of one or more air sacs
 - (d) All the above
4. Fowl typhoid is caused by
- (a) *Salmonella gallinarum*
 - (b) *Pasteurella multocida*
 - (c) *Salmonella pullorum*
 - (d) *Mycoplasma gallisepticum*
5. Scaly leg mite is
- (a) *Knemidocoptes gallinae*
 - (b) *Knemidocoptes mutans*
 - (c) *Dermanyssus gallinae*
 - (d) *Cytodites nudus*
6. Intestinal coccidiosis is caused by
- (a) *Eimeria necatrix*
 - (b) *Eimeria tenella*
 - (c) *Eimeria bruneti*
 - (d) *Eimeria acervulina*

7. Bleaching powder is recommended at the dose rate of
- (a) 8g in 1000 litres of drinking water
 - (b) 10g in 1000 litres of drinking water
 - (c) 12 g in 1000 litres of drinking water
 - (d) 6g in 1000 litres of drinking water
8. There are _____ types of biosecurity
- (a) Two
 - (b) Three
 - (c) Four
 - (d) Five
9. Lasota vaccine is administered to the broiler chicks through
- (a) subcutaneous route
 - (b) intramuscular
 - (c) eye or nasal drops
 - (d) drinking water
10. Mareks disease vaccine is given to the broiler chicks at
- (a) day one in the hatchery
 - (b) day seven
 - (c) day twenty
 - (d) day twenty eight

Part B

(5 × 5 = 25)

Answer **all** questions, 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) Write briefly about Fowl Typhoid.

Or

- (b) Explain briefly about 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) Explain briefly about Aspergillosis.

Or

- (b) Properties of good anticoccidial drugs.

Part 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, 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 Pullorum 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) Managemental 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 firms.

19. (a) Write in detail about vaccination procedure and precautions in broiler chicken.

Or

(b) Write in detail about Gout and sudden death syndrome in broilers.

20. (a) Describe in detail about coccidiosis causes and control measures.

Or

(b) Describe in detail about types of medication and importance of feed medication.

C-5909

Sub. Code

80146

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Fourth Semester

Poultry Science

POULTRY PROCESSING AND WASTE MANAGEMENT

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Haugh units are calculated from
 - (a) Albumen height and albumen weight
 - (b) Yolk height and egg weight
 - (c) Yolk weight and egg weight
 - (d) Albumen height and egg weight

2. The best and most efficient method of preservation of eggs is
 - (a) Thermal processing
 - (b) Immersion in liquids
 - (c) Oil Coating
 - (d) Cold storage

3. A process that reduces the risk of foodborne illness from eggs in dishes that are not cooked or only lightly cooked is called as
- (a) Fermentation (b) Desugarization
(c) Pasteurization (d) Maillard reaction
4. An egg whose shell is free from adhering dirt or foreign material is called as
- (a) Nest Run (b) Clean Run
(c) Nest Egg (d) Clean Egg
5. What is the purpose of scalding in poultry dressing?
- (a) Proper draining of blood
(b) Loosening of skin
(c) Loosening of feathers
(d) Removal of fat from the carcass
6. Dressing percentage of broiler chicken is
- (a) 50 (b) 60
(c) 70 (d) 80
7. The gases in modified atmosphere packaging (MAP) are
- (a) Nitrogen (b) Carbon dioxide
(c) Oxygen (d) All the above
8. Weight lost by birds during the time period between feed withdrawal and slaughter is referred to as
- (a) Dehydration (b) Live shrink
(c) Debility (d) None of the above
9. The average nutrient content (NPK%) of poultry manure is
- (a) 1.03;2.63;1.4 (b) 2.03;2.63;1.4
(c) 3.03;2.63;1.4 (d) 4.03;2,63;1.4

10. Biological hazards associated with the consumption of improperly cooked chicken meat is caused by

- (a) Virus
- (b) Bacteria
- (c) Fungus
- (d) All the above

Part B

(5 × 5 = 25)

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

11. (a) Grading of table eggs.

Or

(b) Physical composition of chicken egg.

12. (a) Importance of egg desugarization.

Or

(b) Pasteurization of chicken egg.

13. (a) Different steps in dressing of chicken.

Or

(b) Importance of carcass grading in poultry processing unit.

14. (a) Flow chart for transportation of poultry meat.

Or

(b) Meat spoilage and quality deterioration.

15. (a) Composition of poultry manure.

Or

(b) Bio gas generation.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail on nutritional and functional characteristics of chicken eggs.

Or

- (b) Write in detail on internal and external characteristics of chicken eggs.

17. (a) Discuss in detail about principles and stages in egg powder preparation.

Or

- (b) Discuss in detail about types of egg powder and their quality control measures.

18. (a) Write in detail about plan, layout and design of egg processing plant.

Or

- (b) Write in detail about chilling, freezing and packaging of poultry meat.

19. (a) Discuss in detail about HACCP concept on chicken slaughter management.

Or

- (b) Discuss in detail about Codex regulation for food products safety.

20. (a) Write in detail about design and layout of rendering plant.

Or

- (b) Write in detail about composting and power generation.

C-5910

Sub. Code

80151

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025.

Fifth Semester

Poultry Science

**COMMERCIAL LAYER CHICKEN PRODUCTION
MANAGEMENT**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. National Egg Coordination Committee was established in the year
 - (a) 1980
 - (b) 1981
 - (c) 1982
 - (d) 1983
2. Floor space requirement for layers in deep lifter system is
 - (a) 2 sq.ft
 - (b) 3 sq.ft
 - (c) 1 sq.ft
 - (d) 2.5 sq.ft
3. Debeaking has to be done in layers initially at
 - (a) 8-10 weeks
 - (b) 10-12 weeks
 - (c) 12-14weeks
 - (d) 14-16weeks
4. One nest box is sufficient for
 - (a) Three layers
 - (b) Five layers
 - (c) Two layers
 - (d) One layer

5. Total duration of light to be provided to layers is
- (a) 12 hours (b) 16 hours
(c) 10 hours (d) 14 hours
6. RDVF vaccine has to be given to the layers during.
- (a) 5-7 days (b) 3-5 days
(c) 7-9 days (d) 9-10 days
7. Namakkal produces daily _____ numbers of eggs.
- (a) 4 crores (b) 5 crores
(c) 6 crores (d) 7 crores
8. The ideal temperature for storage in such climates is
- (a) 13°C (b) 14°C
(c) 15°C (d) 16°C
9. Egg feed price ratio of _____ is desirable.
- (a) 1.2 (b) 1.4
(c) 1.0 (d) 1.1
10. The following value of feed efficiency per dozen eggs in advantageous to the farmer.
- (a) 1.5 (b) 1.7
(c) 1.9 (d) 2.2

Part B

(5 × 5 = 25)

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

11. (a) Explain briefly the commercial layer strains.

Or

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

12. (a) Explain briefly about the preparation of poultry house to receive the layer chicks.

Or

- (b) Write briefly about the debeaking in layers.

13. (a) Write briefly about moulting in layers.

Or

- (b) Explain briefly about the feeding management of layers.

14. (a) Give a brief account of egg production curve.

Or

- (b) Write briefly about culling in layers.

15. (a) Explain briefly about egg feed price

Or

- (b) Explain briefly about the net feed efficiency index.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail on the recent developments in the layer industry.

Or

- (b) Explain in detail on the housing systems followed in the layer farming.

17. (a) Write in detail on the biosecurity measures in layer farms.

Or

- (b) Describe in detail on the grower management.

18. (a) Describe in detail on the difference between good and poor layers.

Or

- (b) Describe in detail on the layer management.

19. (a) Write in detail on the summer management of layers.

Or

- (b) Write in detail on the egg marketing channels in Tamilnadu.

20. (a) Describe in detail about the importance of record keeping and maintenance of registers in layer farms.

Or

- (b) Describe in detail about layer production indices in layer farming.
-

C-5911

Sub. Code

80152

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Fifth Semester

Poultry Science

**POULTRY PRODUCTION ECONOMICS AND
MARKETING**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. The branch of economics that studies individual economic agents and units: individuals, households, firms and industries
 - (a) Microeconomics
 - (b) Macroeconomics
 - (c) Both
 - (d) None

2. Average retail price of chicken eggs is
 - (a) Rs. 8
 - (b) Rs. 5
 - (c) Rs. 7
 - (d) Rs. 9

3. How many types of vertical integration in poultry farming?
 - (a) Two
 - (b) Three
 - (c) Four
 - (d) Five

4. In India, integration was started by Suguna during the year
- (a) 1994 (b) 1995
(c) 1996 (d) 1997
5. Broiler coordination committee is situated _____ in Tamil Nadu.
- (a) Palladam (b) Erode
(c) Coimbatore (d) Namakkal
6. The current processing levels in poultry are
- (a) 4% (b) 5%
(c) 6% (d) 7%
7. NAFED was established in the year
- (a) 1958 (b) 1959
(c) 1960 (d) 1961
8. NECC was established in the year
- (a) 1980 (b) 1981
(c) 1982 (d) 1983
9. _____ are covered in the poultry insurance in the age group of 1 day old to 72 weeks.
- (a) Layer birds (b) Hatchery birds
(c) Both (d) None
10. General insurance business was nationalized in India in the year
- (a) 1971 (b) 1972
(c) 1973 (d) 1974

Part B

(5 × 5 = 25)

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

11. (a) Explain briefly the difference between microeconomics and macroeconomics.

Or

- (b) Write briefly about GDP, GNP, Asset, Liability and balance sheet.

12. (a) Explain briefly about the concepts of integration.

Or

- (b) Write briefly about the role of integrator in poultry egg production.

13. (a) Write briefly about the BCC.

Or

- (b) Explain briefly about the BROMARK.

14. (a) Give a brief account of NECC.

Or

- (b) Write briefly about the role of traders in egg marketing.

15. (a) Explain briefly about the poultry insurance.

Or

- (b) Explain briefly about the rates of premium for poultry farming.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail on the cost of production of table egg and hatching egg.

Or

- (b) Explain in detail on the requirements of financial assistance.

17. (a) Write in detail on the breeder farm integration.

Or

- (b) Describe in detail on advantages and constraints of integration methods.

18. (a) Describe in detail on the broiler contract farming.

Or

- (b) Describe in detail on the broiler live bird marketing channels in Tamil Nadu.

19. (a) Write in detail on the organizational structure of egg marketing in India.

Or

- (b) Write in detail on the egg marketing channels in Tamil Nadu.

20. (a) Describe in detail about the comprehensive cover for poultry farms.

Or

- (b) Describe in detail about the procedure for claim settlement.

C-5912

Sub. Code

80153

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Fifth Semester

Poultry Science

**POULTRY PRODUCTS TECHNOLOGY AND VALUE
ADDITION**

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. The protein content in chicken eggs is
 - (a) 8%
 - (b) 10%
 - (c) 12%
 - (d) 14%

2. Average shape index value of chicken eggs is
 - (a) 72
 - (b) 75
 - (c) 80
 - (d) 78

3. How many eggs are required to prepare the egg salad?
 - (a) Eight large eggs
 - (b) Five large eggs
 - (c) Seven large eggs
 - (d) Six large eggs

4. Scotch eggs originated in which country?
(a) Canada (b) America
(c) England (d) India
5. The normal pH range for fresh chicken meat is generally considered to be
(a) between 6.2 and 6.7
(b) between 5.7 and 6.1
(c) seven
(d) eight
6. Poultry meat has _____ crude protein content.
(a) 21% (b) 15%
(c) 18% (d) 16%
7. Marinating the poultry meat in curd and salt for _____ hours or more, tenderizes the meat.
(a) 1-2 (b) 2-4
(c) 4-6 (d) none
8. Which of the following may be defined as the addition of salt (NaCl) and nitrate and nitrite or nitric oxide to the meat, which results in a conversion of the meat pigment-myoglobin to the nitroso myoglobin?
(a) Curing (b) Smoking
(c) Dehydrating (d) None
9. World Trade organization has its headquarters in
(a) Rome (b) Geneva
(c) New York (d) London
10. The Agricultural and processed Food Products Export Development Authority is a statutory body established in the year
(a) 1985 (b) 1986
(c) 1987 (d) 1988

Part B

(5 × 5 = 25)

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

11. (a) Explain briefly the nutritive value of chicken eggs.

Or

- (b) Write briefly about internal quality of chicken eggs.

12. (a) Explain briefly about the importance of conversion of shell eggs to egg products.

Or

- (b) Write briefly about the scrambled eggs.

13. (a) Write briefly about the nutritive value of chicken meat.

Or

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

14. (a) Give a brief account of tenderization of poultry meat.

Or

- (b) Write briefly about the cut-up parts of chicken.

15. (a) Explain briefly about the role of WTO.

Or

- (b) Explain briefly about the role of APEDA.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail on the designer egg production.

Or

- (b) Explain in detail on the organic egg production.

17. (a) Write in detail on the hard-cooked eggs.

Or

- (b) Describe in detail on packaging of egg products.

18. (a) Describe in detail on the preservation methods of chicken meat.

Or

- (b) Describe in detail on the factors influencing poultry meat quality.

19. (a) Write in detail on the cured and smoked poultry products.

Or

- (b) Write in detail on the enrobed poultry meat products.

20. (a) Describe in detail about the guidelines and standards specified in Codex Alimentarius with respect to poultry meat and their products.

Or

- (b) Describe in detail about the Food safety and standards act 2006.

C-5913

Sub. Code

80154

B.Sc. DEGREE EXAMINATION, NOVEMBER 2025

Fifth Semester

Poultry Science

DIVERSIFIED POULTRY PRODUCTION

(2023 onwards)

Duration : 3 Hours

Maximum : 75 Marks

Part A

(10 × 1 = 10)

Answer **all** questions.

1. Zoological name for domestic duck is
 - (a) *Anas platyrhynchos*
 - (b) *Meleagris gallopavo*
 - (c) *Anser anser*
 - (d) *Columba livia*

2. Incubation period for Japanese quails is
 - (a) 42 days
 - (b) 54 days
 - (c) 17 days
 - (d) 35 days

3. Incubation period for turkeys is
 - (a) 42 days
 - (b) 54 days
 - (c) 28 days
 - (d) 35 days

4. Zoological name for geese is
(a) *Anas platyrhynchos*
(b) *Meleagris gallopavo*
(c) *Anser anser*
(d) *Columba livia*
5. Emu has _____ toes
(a) One (b) Two
(c) Three (d) None of the above
6. The zoological name of ostrich is
(a) *Struthio camelus*
(b) *Anas platyrhynchos*
(c) *Meleagris gallopavo*
(d) *Anser anser*
7. Young one of pigeon is called
(a) Dove (b) Squab
(c) Keet (d) Poult
8. How many separate sub-species of parrots are present?
(a) Seven (b) Eight
(c) Nine (d) Ten
9. Ducklings are mostly susceptible to
(a) Aflatoxin (b) Ochratoxin
(c) Both (d) None
10. Black head is a disease found in which species?
(a) Duck (b) Turkey
(c) Quail (d) Geese

Part B

(5 × 5 = 25)

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

11. (a) Explain briefly the advantages of duck farming.

Or

- (b) Write briefly about brooder management in Japanese quails.

12. (a) Explain briefly about the turkey varieties.

Or

- (b) Write briefly about the feeding management of Guinea fowl.

13. (a) Write briefly about emu paediatrics.

Or

- (b) Explain briefly about the sex identification in ostrich.

14. (a) Give a brief account of aviaries in love birds.

Or

- (b) Write briefly about crop milk.

15. (a) Explain briefly about duck viral enteritis and its control measures.

Or

- (b) Explain briefly about the diseases of quail and its control measures.

Part C

(5 × 8 = 40)

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

16. (a) Write in detail on the important duck egg and meat type ducks breed characteristics. Also write on the management of migratory duck flocks in Tamilnadu.

Or

- (b) Explain in detail on the system of rearing Japanese quails. Explain also the management of egg type quails.

17. (a) Write in detail on housing system of turkeys. Also write their production parameters.

Or

- (b) Describe in detail on breeds or varieties of guinea fowl and their feeding requirements.

18. (a) Describe in detail on the housing and rearing systems of ostrich.

Or

- (b) Describe in detail on the emu breeder management.

19. (a) Write in detail on the management of love birds.

Or

- (b) Write in detail on the management of parrots.

20. (a) Describe in detail about diseases of emu and ostrich.

Or

- (b) Describe in detail about diseases of guinea fowl and its control measures.