#### **B.Sc. DEGREE EXAMINATION**

#### POULTRY SCIENCE

# **APRIL 2021 EXAMINATION**

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# **APRIL 2020 ARREAR EXAMINATION**

# First Semester

# APPLIED AVIAN ANATOMY AND PHYSIOLOGY

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

Answer all questions.

Short answer questions:

- 1. Butter cup comb.
- 2. Spur.
- 3. Bronchi.
- 4. Medullary bone.
- 5. Ureter.
- 6. Ventriculus.
- 7. Neuro hypophysis.

Answer all questions, choosing either (a) or (b).  11. (a) Enumerate different physiological standards for poultry.  Or  (b) Enumerate the integumentary parts of chicken and write the role of skin in physiology.  12. (a) Write in detail about different types of feather pattern.  Or  (b) Components of blood.  13. (a) Significance of pneumatic bones in poultry.  Or  (b) Draw and describe the excretory system of fowl.  14. (a) Write about the role of small intestine in chicken.  Or  (b) Microbial digestion in chicken.	10.	Shel	ll gland.				
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Or  (b) Microbial digestion in chicken.		(b)	Draw and describe the excretory system of fowl.				
(b) Microbial digestion in chicken.	14.	(a)	Write about the role of small intestine in chicken.				
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2 <b>C-3687</b>		(b)	Microbial digestion in chicken.				
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Harderian gland.

Chalazae.

8.

9.

15. (a) Enumerate immune organs in poultry. Write in detail about the role of thymus in immune system. 
Or
(b) Principles of normal behaviour of poultry. 
Part C  $(3 \times 10 = 30)$ 

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

16. (a) Write in detail about circulatory system in poultry, functions of heart and components of blood.

Or

- (b) Draw a neat diagram of respiratory system of chicken write in detail about inhalation and exhalation process.
- 17. (a) Draw male and female reproductive system of chicken. Write an essay different parts of oviduct along its functions.

Or

- (b) Draw a neat diagram on egg structure write composition of an egg. Write about the quality changes in egg due to ageing process.
- 18. (a) Write an essay on principles of poultry behaviour and welfare.

Or

(b) Write an essay on physiology of stress and adaptation in chicken.

#### **B.Sc. DEGREE EXAMINATION**

#### POULTRY SCIENCE

#### **APRIL 2021 EXAMINATION**

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#### APRIL 2020 ARREAR EXAMINATION

#### First Semester

# POULTRY PRODUCTION SYSTEMS, HOUSING, AUTOMATION AND EQUIPMENTS

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

Answer all questions.

Short answer questions:

- 1. Slat.
- 2. Conventional cages.
- 3. Heat exhauster.
- 4. Half monitor.
- 5. Cooling pad.
- 6. Gas brooder.
- 7. 'M' type cages.
- 8. Candler.
- 9. Relative Humidity.
- 10. Crates.

Part B  $(5 \times 5 = 25)$ 

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

11. (a) Intensive vs semi intensive system of rearing.

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- (b) Cage Vs slat system of layer farming.
- 12. (a) Location and layout of a broiler farm.

Or

- (b) Housing equipments for layers.
- 13. (a) Merits and demerits of wire floor housing.

Or

- (b) Concepts of environmentally controlled poultry house.
- 14. (a) Fundamentals of ventilation in poultry house.

Or

- (b) Automatic egg collection system.
- 15. (a) Equipments used in breeder farm and their uses.

Or

(b) Automatic climate control system in poultry houses.

**Part C**  $(3 \times 10 = 30)$ 

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

16. (a) Define comfort zone. Describe in detail about micro and macro environments affecting comfort zone of poultry.

Or

(b) Calculate length and width of a layer farm and draw diagram of shed to rear 1,00,000 layers under 3 tier cage system with 2 M and 2 L type cage rows.

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17. (a) Describe in detail about the possible automation in feed mill units.

Or

- (b) Write in detail about different types of roofs and roofing materials for poultry shed construction.
- 18. (a) Future possibilities of automation in poultry farming.

Or

(b) Enumerate different ventilation system is poultry farming. Write in detail about tunnel ventilation system.

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#### POULTRY SCIENCE

#### **APRIL 2021 EXAMINATION**

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#### APRIL 2020 ARREAR EXAMINATION

#### **Second Semester**

#### INCUBATION AND HATCHERY MANAGEMENT

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

Answer all questions.

Short answers:

- 1. Single stage incubator.
- 2. Egg cool room.
- 3. Pulling.
- 4. Forced draft incubator.
- 5. Grading chicks.
- 6. In-ovo vaccination.
- 7. Chick boxes.
- 8. Fumigation.
- 9. Exploders.
- 10. Egg setting.

Part B  $(5 \times 5 = 25)$ 

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

11. (a) Selection of location for hatchery.

Or

- (b) Physical requirements in hatchery compartment.
- 12. (a) Role of computers in hatchery operation.

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- (b) Analysis of poor hatchability.
- 13. (a) Egg weight, shell colour and incubation periods of different Poultry species.

Or

- (b) Factors affecting the hatchability.
- 14. (a) Candling of hatching eggs.

Or

- (b) Care of hatching eggs.
- 15. (a) Single stage vs multistage incubators.

Or

(b) Disease control measures in hatchery.

**Part C** 
$$(3 \times 10 = 30)$$

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

16. (a) Write in detail on the layout and design of an ideal hatchery with a neat diagram.

Or

(b) Write the flow chart for hatchery operations.

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17. (a) Post-hatch break open analysis in hatchery.

Or

- (b) Methods and strength of fumigation and precautions during fumigation in hatchery.
- 18. (a) Write in detail on hatchery waste management.

Or

(b) Write an essay on hatchery sanitation.

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#### APRIL 2020 ARREAR EXAMINATION

#### **Second Semester**

# POULTRY NUTRITION AND FEED MILLING TECHNOLOGY

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

- 1. Micronutrient.
- 2. Soyabean oil cake.
- 3. Probiotic.
- 4. Energy and CP requirements for ducks at various ages as per BIS.
- 5. Perosis.
- 6. Elevator.
- 7. Pelleting.
- 8. Horizontal mixer.
- 9. Hammer mill.
- 10. Aflatoxin.

11. (a) Proximate analysis of feed ingredients.

Or

- (b) Feed storage.
- 12. (a) Energy sources in poultry nutrition.

Or

- (b) Feeding of layers in summer season.
- 13. (a) Least cost feed formulation.

Or

- (b) Enzymes in poultry feeding.
- 14. (a) Packaging of processed feed.

Or

- (b) Feeding of turkeys in laying period.
- 15. (a) GMP protocol.

Or

(b) Vertical mixer.

**Part C**  $(3 \times 10 = 30)$ 

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

16. (a) Write in detail on classification of poultry feed ingredients.

Or

(b) Compare the restricted verses centrolled feeding.

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17. (a) HACCP protocols in feed mill.

Or

- (b) Feeding management in Japanese quail.
- 18. (a) Feed mill layout and design with a neat diagram.

Or

(b) Metabolic disorders in poultry and discuss in detail about any one of the metabolic disorders in poultry.

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#### APRIL 2020 ARREAR EXAMINATION

#### Third Semester

# PRINCIPLES OF POULTRY BREEDING

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

- 1. Frizzle.
- 2. Quantitative trait.
- 3. Asiatic class.
- 4. Plymouth rock.
- 5. Recessiveness.
- 6. Heterozygons.
- 7. Family selection.
- 8. Pair mating.
- 9. Progeny testing.
- 10. Crossbreeding.

			Part B	$(5 \times 5 = 25)$			
Answer <b>all</b> questions, choosing either (a) or (b).							
11.	(a)	Aseel.					
			Or				

(b) Distinguishing sex at hatching time.

12. (a) Mendelian law of independent assortment.

Or

(b) Independent culling levels.

13. (a) Random mating.

Or

(b) Pen mating.

14. (a) Poultry breeding for meat.

Or

(b) Individual selection.

15. (a) Genetic basis of variability.

Or

(b) Effects of cross breeding.

**Part C**  $(3 \times 10 = 30)$ 

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

16. (a) Write an essay on common breeding programs practised in Poultry Industry.

Or

(b) Write in detail on selection of meat type lines.

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17. (a) Explain in detail on Mendel's law of segregation and recombination.

Or

- (b) Write in detail on Genex Environment interaction effect.
- 18. (a) Write an essay on ideal breeding programme for egg type chicken.

Or

(b) Discuss in detail on origin and breed characteristics of any three exotic poultry breeds.

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#### POULTRY SCIENCE

# **APRIL 2021 EXAMINATION**

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# **APRIL 2020 ARREAR EXAMINATION**

#### Third Semester

#### BROILER BREEDER MANAGEMENT

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

- 1. Pure line.
- 2. Broiler.
- 3. Uniformity.
- 4. HDEP.
- 5. Fertility.
- 6. Crop score.
- 7. Franchise hatchery.
- 8. Culling.
- 9. Debeaking.
- 10. Sexing error.

Part B

 $(5 \times 5 = 25)$ 

#### Answer all questions.

11. (a) Commercial strains of broiler available in India.

Or

- (b) Production standards of broiler breeder.
- 12. (a) Temperature and relative humidity during incubation.

Or

- (b) Watering of broiler breeders.
- 13. (a) Selection of males in broiler breeder farm.

Or

- (b) Supplementary feeding strategies followed in broiler breeder farm.
- 14. (a) Explain the importance of fumigation in a hatchery.

Or

- (b) Care of hatching eggs from a breeder farm to hatchery.
- 15. (a) List out the records to be maintained in a broiler breeder farm.

Or

(b) Write in brief about calling procedures adopted in broiler breeder farms.

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**Part C**  $(3 \times 10 = 30)$ 

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

16. (a) Write in detail about biosecurity measures to be adopted in a broiler breeder farm.

Or

- (b) Discuss in detail about feeding management of broiler breeders.
- 17. (a) Write in detail about management of broiler breeders during peak egg production period.

Or

- (b) Discuss in detail about bitter management in a broiler breeder farm.
- 18. (a) Discuss in detail about artificial insemination in poultry.

Or

(b) How will you manage your broiler breeder farm during winter season.

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# **APRIL 2020 ARREAR EXAMINATION**

#### Third Semester

# CLIMATE AND POULTRY PRODUCTION

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

- 1. Micro climate.
- 2. RH.
- 3. Nacked neck.
- 4. Thermostat.
- 5. LCT.
- 6. Huddling.
- 7. Insensible Heat loss.
- 8. Anemometer.
- 9. Candle.
- 10. Photo refractoriness.

Part B  $(5 \times 5 = 25)$  Answer all questions, choosing either (a) or (b).

11. (a) Write about assessment of climate.

Or

- (b) Green house gases in poultry houses.
- 12. (a) Importance of air velocity maintenance in poultry houses.

Or

- (b) Write in detail about chemical heat regulations.
- 13. (a) Recommended temperatures for broilers.

Or

- (b) Management of poultry during monsoon.
- 14. (a) Write about measuring and assessing temperature.

Or

- (b) Write about climatic adaptation measures.
- 15. (a) Elaborate an temperature zones.

Or

(b) Agroclimatic zones in India.

**Part C** 
$$(3 \times 10 = 30)$$

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

16. (a) Write about climatic differentiation for avian production.

Or

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(b) Weather forecasting for poultry husbandry activities.

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17. (a) List out heat resistant breeds / varieties / strains to suit different climatic regions of India.

Or

- (b) Write about disaster management in poultry production.
- 18. (a) Factors influencing climatic conditions and the birds micro climate.

Or

(b) What is heat stress? How will you present the occurrence of this in a poultry farm?

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#### **APRIL 2020 ARREAR EXAMINATION**

# **Fourth Semester**

# **BROILER PRODUCTION**

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

**Part A**  $(10 \times 2 = 20)$ 

- 1. Broiler.
- 2. CFCR.
- 3. NMPPB.
- 4. All in-all out.
- 5. Livability.
- 6. Crate.
- 7. Strain.
- 8. Crumble.
- 9. Ross.
- 10. EEF.

Part B

 $(5 \times 5 = 25)$ 

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

11. (a) List out the Commer broiler strains available in India.

Or

- (b) Role of BCC in India.
- 12. (a) Write about brooding management of broiler chicks after receiving in a farm.

Or

- (b) How will you manage bitter in a broiler farm?
- 13. (a) Write about importance of water management in a broiler farm.

Or

- (b) How will you monitor body weight of broiler birds in your farm?
- 14. (a) Describe in brief about birds lifting in a broiler farm.

Or

- (b) Write about customer relationship management in broiler farm marketing.
- 15. (a) Write about advantages and disadvantages of pellet feeding.

Or

(b) Write about importance of feeder and drinker alignment during brooding and growing management of broilers.

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**Part C**  $(3 \times 10 = 30)$ 

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

16. (a) Write about overview of Broiler Industry in India.

Or

- (b) Write about system of integration in Broiler production.
- 17. (a) Write in detail about Nutrient requirements of Broiler according to BIS.

Or

- (b) List out forms of feed along with their advantages and disadvantages.
- 18. (a) How will you manage broilers during winter season?

Or

(b) Write in detail about bio security measures to be adopted in a broiler farm.

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#### **APRIL 2021 EXAMINATION**

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# **APRIL 2020 ARREAR EXAMINATION**

# **Fourth Semester**

# POULTRY DISEASES AND FLOCK HEALTH

(2019 onwards)

Duration: 3 Hours Maximum: 75 Marks

Part A  $(10 \times 2 = 20)$ 

- 1. Etiology
- 2. Morbidity
- 3. Stress
- 4. Vectors
- 5. OPV
- 6. Coccidiostats
- 7. Differential diagnosis
- 8. Quarantine
- 9. Dipping
- 10. Chlorination.

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

11. (a) Differentiate MD vs LL.

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- (b) Write about broder pneumonia and how will you prevent it is a poultry farm?
- 12. (a) Describe fowl pox occurance in a poultry farm. Elaborate prevention and control measures.

Or

- (b) Discuss in detail about rodent control in poultry farms.
- 13. (a) What is deworming? How will you perform this in a poultry farm?

Or

- (b) Write about importance of water sanitation in controlling poultry diseases.
- 14. (a) Water medication vs feed predication.

Or

- (b) Vaccination schedule for broilers.
- 15. (a) How will you prevent and control "Perosis" in a poultry farm?

Or

(b) Write about ascites including signs, pm lesions, diagnosis, differential diagnosis, prevention, treatment and control.

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**Part C**  $(3 \times 10 = 30)$ 

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

16. (a) List out the bacterial diseases affecting poultry and explain in detail salmonellosis.

Or

- (b) List out nutritional deficiency diseases and write in detail about protein deficiency.
- 17. (a) How will you adopt biosecurity measures in a poultry farm?

Or

- (b) Write in detail about mycoplosmosis and elaborate on prevention and control.
- 18. (a) Write about vaccination principles and vaccination schedule for breeders.

Or

(b) Write about importance of disinfection, types of disinfectants, mode of action, procedure, precaution and handling.

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