Sub. Code 80311

# **DIPLOMA EXAMINATION, NOVEMBER 2023**

#### First Semester

# **Commercial Broiler Production Management**

# BROILER HOUSING, EQUIPMENT AND AUTOMATION

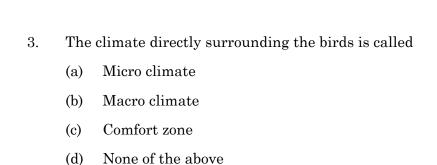
(2023 onwards)

Duration: 3 Hours Maximum: 75 Marks

Section A  $(10 \times 1 = 10)$ 

Answer all questions.

- 1. The broiler production in India has been rising annually at
  - (a) 1.5 to 2 percent
  - (b) 8 to 10 percent
  - (c) 15 to 17 percent
  - (d) 6 to 8 percent
- 2. The top producer of chicken meat in the world is
  - (a) China
  - (b) Brazil
  - (c) USA
  - (d) European Union



- 4. The temperature zone in which the birds are able to keep their body temperature constant with the help of physical heat regulation.
  - (a) Comfort zone
  - (b) Critical temperature zone
  - (c) Thermoneutral zone
  - (d) None of the above
- 5. In hot climatic regions, the ventilation capacity in the poultry house should be
  - (a) 2 m³ chicken/hour
  - (b) 3 m<sup>3</sup> chicken/hour
  - (c) 5 m<sup>3</sup> chicken/hour
  - (d) 4 m<sup>3</sup> chicken/hour
- 6. Air velocity recommended for rearing broilers under tunnel ventilation system is
  - (a) 2.5 3 m/s
  - (b) 1.75 2.25 m/s
  - (c) 2.25 3 m/s
  - (d) none of the above

	(b)	250 chicks				
	(c)	225 chicks				
	(d)	175 chicks				
8.	Which	ch vaccine is give	n to	the chicks at	the hatchery	
	(a)	Marek's disease v	accine	е		
	(b)	Newcastle disease	vacc	ine		
	(c)	IBD vaccine				
	(d)	Fowl pox vaccine				
9.		omplete one feeding is required for aut	_			
	(a)	30 minutes				
	(b)	40 minutes				
	(c)	50 minutes				
	(d)	60 minutes				
10.		broilers are not fe s before?	ed bef	fore slaughter f	for how many	
	(a)	12 hrs	(b)	10 hrs		
	(c)	8 hrs	(d)	6 hrs		
			3		C-1395	

250 watt infrared bulb brooders are sufficient for

7.

(a)

 $200~{
m chicks}$ 

#### Answer **all** questions.

11. (a) Write briefly about broiler rearing in cages.

Or

- (b) Write briefly the comparison between all in all out system and multiple batch system of rearing broilers.
- 12. (a) Explain briefly about the importance of poultry housing.

Or

- (b) Write briefly about water quality standards for a broiler farm.
- 13. (a) Write a brief note on tunnel and duct ventilation in broiler house.

Or

- (b) Explain briefly about the letter Management in broiler houses.
- 14. (a) Write briefly about weighing scales and curtains in broiler houses.

Or

(b) Explain briefly about the importance of brooding broiler chicks and list out the equipment needed for brooding the chicks.

4

C-1395

15. (a) What are the advantages of automation in broiler farming?
Or
(b) Write briefly about the slaughter of broilers from procurement to packaging of meat.
Section C (5×8 = 40)

Answer all questions.

16. (a) Write a detailed answer for the growth of broiler industry in India.

Or

- (b) Explain in detail on broiler housing design and requirements.
- 17. (a) Discuss in detail on macro and micro environment for rearing broilers.

Or

- (b) Write in detail on comfort zone and thermoneutral zone required for broilers. Explain also about the methods of heat dissipation in broilers.
- 18. (a) Write in detail on the insulating materials for broiler houses and also explain 'R' value.

Or

(b) Explain in detail on the fundamentals of ventilation in broilers houses.

C-1395

5

19. (a) Discuss in detail on broiler cages and sprinkler.

Or

- (b) Write a detailed answer on feeding and watering equipment in broiler farms.
- 20. (a) Explain in detail on automation in broiler meat processing plant.

Or

(b) Write in detail on climate control system in broiler houses.

Sub. Code

80312

# DIPLOMA EXAMINATION, NOVEMBER 2023.

#### First Semester

# **Commercial Broiler Production Management**

#### COMMERCIAL BROILER CHICKEN MANAGEMENT

#### (2023 onwards)

Duration: 3 Hours Maximum: 75 Marks

 $\mathbf{Part} \mathbf{A} \qquad (10 \times 1 = 10)$ 

Answer all the 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) BV 300
- (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

	days	3					
	(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.		ler finisher has keting from	to be	given to the broilers till			
	(a)	$22^{ m nd}~{ m day}$	(b)	29 <sup>th</sup> day			
	(c)	$24^{ m th}~{ m day}$	(d)	$20^{ m th}~{ m day}$			
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.	1 litre 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			
		0	(d)	2			
	(c)	8	(4)				

Floor space requirement for broiler chicks during  $8\ \mathrm{to}\ 14$ 

4.

Part B

 $(5 \times 5 = 25)$ 

#### Answer all questions.

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

Or

- (b) Explain briefly about all in all out system to 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

3

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

C-1396

Part C

 $(5 \times 8 = 40)$ 

#### Answer all the questions.

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-1396

1

Sub. Code

80313

# DIPLOMA EXAMINATION, NOVEMBER - 2023

# Commercial Broiler Breeder Production Management

# CHICKEN ANATOMY, INCUBATION AND HATCHERY MANAGEMENT

(2023 onwards)

Time: 3 Hours Maximum: 75 Marks

Section A  $(10 \times 1 = 10)$ 

Answer all the questions.

- 1. Which breed does not belong to American class of poultry?
  - (a) New Hampshire
- (b) Rhode Island Red
- (c) Leg horn
- (d) Plymouth Rock
- 2. Normal heart rate in chicken is a
  - (a) 200 beats/minute
  - (b) 220 beats/minute
  - (c) 500-600 beats/minute
  - (d) 350-475 beats/minute
- 3. The first part of the oviduct
  - (a) Magnum
- (b) Infundibulum
- (c) Uterus
- (d) Isthmus
- 4. Chicken egg shell is composed primarily of
  - (a) Calcium carbonate
  - (b) Magnesium carbonate
  - (c) Calcium phosphate
  - (d) None of the above

5.	A s1	ngle air sac is found	in th	A single air sac is found in the						
	(a)	) Cervical region								
	(b)	Intercllaviculular region								
	(c)	Abdominal region								
	(d)	80-90%								
6.	Which is the vocal organ of the fowl?									
	(a)	Larynx	(b)	Syrinx						
	(c)	Bronchi	(d)	Trachea						
7.	Incubation period for Muscovy duck eggs									
	(a)	21 days	(b)	28 days						
	(c)	35 days	(d)	42 days						
8.	Heart begins to beat at									
	(a)									
	(b)									
	(c)	50 hours of incubation								
	(d)	54 hours of incuba	tion							
9.	Hatching eggs have to be transferred from setter to hatcher									
	(a)	19th day of incuba	tion							
	(b)	17th day of incuba	tion							
	(c)	20th day of incuba	tion							
	(d)	18th day of incuba	tion							
10.	The recommended relative humidity for egg holding room is									
	(a)	50%	(b)	60%						
	(c)	70%	(d)	75-80%						
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					· · · · · · · · · · · · · · · · · · ·					

Section B

 $(5 \times 5 = 25)$ 

Answer all the questions.

11. (a) Explain briefly the role of skin and feather.

Or

- (b) Write briefly about types of combs.
- 12. (a) Explain briefly about the composition of pancreatic secretions.

Or

- (b) Write briefly about medullary bone and its functions.
- 13. (a) Write briefly about air sacs in chicken.

Or

- (b) Explain briefly about the hormones of the fowl.
- 14. (a) Give a brief account of selection and care of hatching eggs.

Or

- (b) Write briefly about incubation periods for different poultry species.
- 15. (a) Explain briefly about single and multistage incubators.

Or

(b) Explain briefly about the sexing of chicks at hatch.

Section C  $(5 \times 8 = 40)$ 

Answer all the questions.

16. (a) Write in detail on thermoregulation in chicken.

Oı

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

C-1397

3

17. (a) Write in detail on male reproductive system with a neat diagram.

Or

- (b) Describe in detail on skeletal system with a neat diagram.
- 18. (a) Describe in detail on avian respiratory system with a neat diagram.

Or

- (b) Describe in detail on avian immune system with neat diagram.
- 19. (a) Write in detail about hatchery lay out, design and construction.

Or

- (b) Write in detail about physical requirements for incubation of chicken eggs.
- 20. (a) Describe in detail about hatchery operations.

Or

(b) Describe in detail about in-ovo and in-hatch vaccinations and medications.