

M.Sc. Examination, 2017
Semester-III
Animal Science (Poultry)
Course: PSC-503
(Commercial Layer Production)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer **any five** questions.

1. Elaborate management of commercial layer farm. 10
 2. Describe effect of nutrition on egg quality. 10
 3. Write short notes on (**any four**): 2.5x4=10
 - i) Commercial Strains of layer type chicken
 - ii) Antinutritional factor and digestibility
 - iii) Toxin binder
 - iv) Probiotic
 - v) Non-antibiotic growth promoter
 - vi) Designer egg
 - vii) Disinfectant
 - viii) Acidifier
 4. Explain alternative feed sources in layer chicken diet. Describe vaccination schedule of layer poultry. 5+5=10
 5. Define Biosecurity. State different measures of biosecurity in poultry farm. 3+7=10
 6. Describe the characteristic post mortem lesion, preventive and therapeutic treatment (**any four**): 4x2.5=10
 - 1) Bird Flu
 - ii) Ranikhet
 - iii) Gumboro
 - iv) Coccidiosis
 - v) Infectious bronchitis
 - vi) Fowl pox
 - vii) Salmonellosis
 - viii) Chronic Respiratory Disease
 7. Describe nutrient requirements of layer type chicken. Write different pointers of quality egg production. 5+5=10
 8. Prepare economics of 1000 birds layer farming. 10
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1. Describe grower and layer management. 10
 2. Elaborate methods of designing egg. 10
 3. Describe nutrient requirement of layers for a longer production cycle and high performance. 10
 4. Prepare economics of 1000 birds layer farming. 10
 5. Describe ideal amino acid profile for layer chicken. State different factors affecting quality and quantity of egg production. 5+5=10
 6. Describe vaccination schedule of layer poultry. State different measures of bio-security in Poultry farm. 5+5=10
 7. Write short notes on 2.5x4=10
Answer any four
 - i) Synbiotic
 - ii) Carcass disposal
 - iii) Layer chicken breed
 - iv) Feed enzyme
 - v) Unconventional feed resources used in poultry feed
 - vi) Disinfectant
 - vii) Organic poultry farming
 - viii) Anti nutritional factor
 8. Describe the characteristic post mortem lesion, preventive and therapeutic treatment
Answer any four 2.5x4=10
 - i) Marek's disease
 - ii) Colibacillosis
 - iii) Pullorum disease
 - iv) Chronic Respiratory disease
 - v) Coccidiosis
 - vi) Infectious coryza
 - vii) Fowl cholera
 - viii) Aspergillosis
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Answer **any five** questions

1. What do you mean by layer? Mention few hybrid strains being used for commercial layer. Highlight the status of poultry farming in India with special reference to egg industry. 2+2+6=10
 2. Highlight the deep litter vs cage system of rearing commercial layer chicken. Mention the space requirement for various physiological stages of layer chicken in deep litter system. Write the advantages and disadvantages of deep litter system for rearing poultry. 3+3+4=10
 3. Describe, in short, feed and water management for commercial layer birds. How much feed is required for a layer chicken daily during laying period? 9+1=10
 4. What are the diseases of layer chicken commonly seen in India? Describe in short common health management protocol in an organized layer poultry farm.
 5. Describe, in short, how the following practices are being carried out in a layer poultry farm: 2.5×4=10
a) Debeaking b) Brooding c) Culling d) Disinfection of farm
 6. Prepare a bankable project of commercial poultry farm with 10,000 birds, including bank loan repayment schedule. Consider a subsidy of Rs. 10000 from State Government for preparing economics part of the project. 10
 7. Describe in, Short, the etiology, symptoms, prevention and control of the following poultry diseases **(any four)**: 2.5×4=10
a) Newcastle Disease b) Fowl Pox c) Coccidiosis d) Infectious Bursal Disease
e) CRD
 8. Write short notes **(any four)** : 2.5×4=10
a) Food additives b) Cannibalism c) Light management in layer shed
d) Bird flu e) Organic poultry farming f) Designer egg g) Automation in poultry farm
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M.Sc. (Ag.) Examination, 2020
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Questions are of value as indicated in the margin.

Answer **any five** questions

1. Mention the aetiology, symptoms, prevention & control of the following diseases:
a) Ranikhet, b) Coccidiosis, c) Fowl pox, d) Chronic Respiratory Disease 2.5×4=10
 2. State different means of bio-security in layer farm. 10
 3. Describe the vaccination schedule in layer farm. 10
 4. Elaborate points for grower and layer management. 10
 5. What are the different systems of rearing layer birds? Describe in details. 2+8=10
 6. What is moulting? How is it related with egg production? 3+7=10
 7. Write short notes on (**any four**) 2.5×4=10
a) Culling, b) Feed additives, c) Probiotic, d) Brooding, e) Depigmentation,
f) Egg bound condition
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Full Marks : 50

Questions are of value as indicated in the margin.

Answer **any five** questions

1. Write short note 2.5x4=10
 - a. Ranikhet Disease
 - b. Coccidiosis
 - c. Chronic Respiratory Disease
 - d. Gumboro disease
 2. Describe Vaccination schedule of Layer birds. Elaborate bio security measures of poultry farm. 5+5=10
 3. Describe importance of use of water sanitiser and different options. Elaborate management of cage system of management. 5+5=10
 4. Explain different factors causing uneven growth and low egg production. Describe methods for producing value added egg production. 5+5=10
 5. Describe deep litter layer farm management Explain induced moulting. 5+5=10
 6. Describe management of layer birds during peak egg production. State lighting programme for egg type birds. 5+5=10
 7. Write short note on 2.5x4=10
 - a. Debeaking
 - b. Pause
 - c. Hen day egg production
 - d. Hen housed egg production
 8. Explain Brooder management and Grower management. 5+5=10
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Name of the Examination: M.Sc in Animal Science (Poultry)

Semester: III

Year: 2022

Subject: Commercial Layer Production

Paper/Course: PSC-503 Half:

Time: 3 Hours

Full Marks: 50

Answer **any five** questions

1. What do you mean by deep litter management of poultry birds? What are the advantages of Californian cage system? 5+5=10
 2. Ideally where should be the location of a poultry house/farm? What should be the orientation of poultry house in hot weather prevailing area. Provide the explanation regarding considering such orientation. What do you mean by environment-controlled houses for layers? 5+2+3=10
 3. What are the advantages of All-in All-out system in poultry layers? What are the probable causes of low egg production in commercial chicken layers? 5+5=10
 4. State the managerial practises to be taken to prevent heat stress in birds during summer. What types of records should be kept in a layer farm? 5+5=10
 5. State the lighting programme to be followed in layer farm and its importance? What do you mean by FCR (Feed Conversion Ratio) in layer birds, how is it calculated? What do you mean by forced moulting? 5+3+2=10
 6. What are the precautions to be taken for vaccinating poultry? What do you mean by cold chain in relation to vaccine? State four important vaccines of layer chicken and their route and age of administration. 5+2+3=10
 7. Short note/ Define the followings (any four) 2.5x4=10
 - a. Beak Trimming
 - b. Moulting
 - c. Multiple batch system in poultry layers
 - d. Water quality in layer farm
 - e. Unconventional feed
 - f. Bird Flu
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VISVA-BHARATI
PALLI SIKSHA BHAVANA
(INSTITUTE OF AGRICULTURE)
DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2017 (Third Sem)
Course: PSC- 504
(Commercial Broiler Production)

Time: 3 Hours

Max Marks: 50

Explain the following (any five) (10×5= 50)

- 1) What is Broiler? Mention different breeds used as broiler in India with their production potential. 2+8=10
- 2) What do you mean by ‘brooding’? Mention temperature requirement and light requirement during brooding period from day-old up to marketing. 2+8=10
- 3) a) Enumerate the vaccination schedule in broiler.
b) What is ‘Bio-Security’? What are the points to be covered in respect of bio-security? 5+5=10
- 4) a) What are the different ways of marketing of broilers?
b) What are the different factors for calculating price of broiler? 5+5=10
- 5) Mention different type of poultry ration used in India with the formulation. 10
- 6) Prepare layout and design of a broiler house. 10
- 7) Write short notes on (any four): 4×2.5=10
 - a) Calorie-protein ratio
 - b) Broiler farm records
 - c) FCR
 - d) Transport of broilers
 - e) Diseases of broilers
 - f) Debeaking



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DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2018 (Third Sem)

Course: PSC- 504

(Commercial Broiler Production)

Time: 3 Hours

Max Marks: 50

Explain the following (any five)

(10×5= 50)

1. Define 'Broiler'. How are broiler birds prepared? 2+8=10
2. Enumerate day-to-day management of broiler birds from day old to marketing age. 10
3. 'Bio-security is must in a poultry farm' – Justify in details. 10
4. Compute the ration of broiler birds for a) Growing period and b) Finishing period. 5+5=10
5. What do you mean by loss of diminishing return? Co-relate it with broiler production. 5+5=10
6. Mention different housing of broilers with detail infrastructures and merits of different types. 10
7. Write short notes on (any four): 4×2.5=10
 - a. Debeaking
 - b. Gumbaro disease
 - c. Brooding
 - d. Restriction
 - e. Dressing percentage
 - f. Morbidity and Mortality



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DEPARTMENT OF ANIMAL SCIENCE**

**Final Examination – Theory 2019 (Third Sem)
Course: PSC- 504
(Commercial Broiler Production)**

Time: 3 Hours

Max Marks: 50

Explain the following (any five) (10×5= 50)

1. What are the criteria of site selection for construction of broiler farm? 10
2. What are the major practices to be followed for preventive management of diseases in broiler farm? 10
3. Classify different feed ingredients used in broiler feeding, along with examples. 10
4. Describe the methods of ensuring Bio-security in a broiler farm. 10
5. Give details about drinking water management in broiler farm. 10
6. Write about seasonal impact (Summer/Winter/Monsoon) on Broiler production. What are the special precautions taken during different seasons? 5+5=10
7. Write short notes on (any four): 4×2.5=10
 - a. Feed Conversion Ratio
 - b. Care of day-old-chick
 - c. Disinfection of poultry shed
 - d. Water borne diseases in broilers
 - e. Marek's Disease
 - f. Deep litter system



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DEPARTMENT OF ANIMAL SCIENCE**

**Final Examination – Theory 2020 (Third Sem)
Course: PSC- 504
(Commercial Broiler Production)**

Time: 3 Hours

Max Marks: 50

Explain the following (any five) (10×5= 50)

1. What are the different factors for calculating price of broilers? 10
2. Mention day-to-day management of broiler, from day old to marketing age. 10
3. What do you mean by ‘law of diminishing return’? Co-relate it with broiler production. 5+5=10
4. Classify different feed ingredients used in broiler feeding along with examples. 10
5. Describe different housing of broilers with detail infrastructures and merits of different types. 10
6. What do you mean by ‘broiler’? Mention different breeds used as broiler in India. 10
7. Write short notes on (any four): 4×2.5=10
 - a. Feed Conversion Ratio
 - b. Dressing Percentage
 - c. Deep Litter System
 - d. Summer trees in broiler
 - e. Gumboro Disease
 - f. Light requirement in Broilers



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DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2021 (Third Sem)
Course: PSC- 504
(Commercial Broiler Production)

Time: 3 Hours

Max Marks: 50

Explain the following (any five) (10×5= 50)

1. What are the criteria of site selection for construction of broiler farm? 10
2. Enumerate day-to-day management of broiler birds from day old to marketing age. 10
3. 'Bio-security is must in a poultry farm' – Justify in details. 10
4. Compute the ration of broiler birds for a) Growing Period and b) Finishing Period. 5+5=10
5. What do you mean by 'law of diminishing'? Co-relate it with broiler production. 5+5=10
6. Mention different housing of broilers with detail infrastructures and merits of different types. 10
7. Write short notes on (any four): 4×2.5=10
 - a. Feed Conversion Ratio
 - b. Gumbaro Disease
 - c. Brooding
 - d. Restriction of feed
 - e. Dressing Percentage
 - f. Morbidity and Mortality



**VISVA-BHARATI
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DEPARTMENT OF ANIMAL SCIENCE**

Final Examination – Theory 2022 (Third Sem)

Course: PSC- 504

(Commercial Broiler Production)

Time: 3 Hours

Max Marks: 50

Explain the following (any five)

(10×5= 50)

1. (a) What are the desirable characteristics of a bird to designate it as a ‘broiler bird’?
Layout the design to establish a commercial broiler farm. 2 + 8 = 10
2. (a) How the water quality affects the gut health of broiler birds?
(b) Write down the strategies to improve the poultry litter quality. 5 + 5 = 10
3. (a) Define FCR. What is the ideal FCR in today’s commercial farming for broiler birds?
How can you improve it? 2 + 2 + 6 = 10
4. Differentiate between the following: (any two) 2 X 5 = 10
 - (a) Feeding during hot weather vs feeding during winter
 - (b) Starter feed formula vs Finisher feed formula
 - (c) Mash feeding vs Pellet feeding
5. Write in brief: (any two) 2 X 5 = 10
 - (a) Routine Vaccination Schedule in a broiler farm
 - (b) Water Quality Management in a commercial farm
 - (c) Different methods of rearing the broiler birds.
6. Short Notes (any four) 4 X 2.5 = 10
 - (a) Brooding
 - (b) Forced moulting
 - (c) Sexing of birds
 - (d) Marketing of birds
 - (e) Phase feeding
 - (f) All in all out system of rearing

M.Sc. Examination, 2017
Semester-III
Animal Science (Poultry)
Course: PSC-507
(Poultry Products Technology and Marketing)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.
Answer **any five** questions.

1. Write short note on the nutritive value of chicken egg. Enumerate the methods of grading of table eggs. Steps of ante-mortem inspection of poultry before slaughter. 3 + 3 + 4 = 10
 2. The role of chilling in poultry meat processing. Describe the steps for the preparation of ready-to-cook chicken. What are the common marketing channels in India for commercial egg business? 2 + 5 + 3 = 10
 3. What are the procedures commonly used for shell egg preservation? What is sperm storage tubule (SST)? Describe the role of uterus in egg formation. 5 + 2 + 3 = 10
 4. Briefly describe the role of NECC for egg marketing in India. How does the commercial egg powder is prepared? Enumerate the role of scalding in poultry processing for ready- to-cook chicken. 3 + 4 + 3 = 10
 5. How does curing and smoking is practiced for the preservation of chicken? What is cold sterilization? Common poultry diseases affecting quality of hatching eggs. Write about the packing of eggs for commercial marketing. 3 + 2 + 2 + 3 = 10
 6. What are the factors affecting quality of ready-to-cook chicken? What do you mean by tenderization of meat? Briefly explain the poultry by-products and their commercial use. Why blood spot is offensive for hatching eggs? 3 + 2 + 3 + 2 = 10
 7. Write about the nutritive value of chicken as white meat. What are the points to be considered for grading of dressed chicken? Steps for the preparation of tandoori chicken. 3 + 4 + 3 = 10
 8. Write short notes 2x5=10
 - a. Evisceration
 - b. Magnum
 - c. Singeing
 - d. Chicken barbecue
 - e. Giblet
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M.Sc. Examination, 2018
Semester-III
Animal Science (Poultry)
Course: PSC-507
(Poultry Products Technology and Marketing)

Time: Three Hours

Full Marks: 50

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Answer **any five** questions.

1. Write the steps of hygienic Poultry slaughter. 10
 2. Write about different marketing channels available in the country for marketing of Poultry meat and meat products. 10
 3. What are the different methods of preservation of poultry meat? Discuss briefly. 10
 4. Write about spoilage of shelled eggs showing appropriate examples. 10
 5. Write short notes on (**any five**): 2×5=10
 - a) Grading of eggs
 - b) Smoking of poultry meat
 - c) Tandoori chicken
 - d) Thermo stabilization of eggs
 - e) Scalding of poultry
 - f) Haugh Unit of eggs
 6. Write down the nutritive value and chemical composition of egg and chicken meat. 10
 7. Enumerate the handling, processing, packing and transport of eggs. 10
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M.Sc. (Ag.) Examination, 2019
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Animal Science (Poultry)
Course: PSC-507
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Time: 3 Hours

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Answer **any five** questions.

1. Define Broiler. Write with a flow diagram of the process of 'ready-to-cook' preparation of chicken. What is giblet? 2+6+2=10
 2. Name some important value added products from Chicken Write the procedure of sausage preparation in detail. 4+6=10
 3. What are the prime and non-prime cuts from chicken carcass? Express the nutritional composition of chicken. Discuss the nutritional importance of chicken in human nutrition. 2+2+4+2=10
 4. Write a note of market, marketing and market survey. Write the different components of marketing. What are the 'after sale service' and 'consumers education'? Define 'grading'. 3+3+2+2=10
 5. What are the different external and internal parameters of egg quality? Write in detail on these parameters for assessing the egg quality. 4+6=10
 6. Write as short note on the following: any four: 2.5×4=10
a) Meat emulsion b) Quail egg c) pH of meat d) WHC e) Duck meat breed
f) Chilling of chicken meat
 7. Write on 'scope of poultry processing technology' in India and sustainable poultry development. 10
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Answer **any five** questions

1. What is 'Canning'? Write down different preservation methods of poultry meat by low temperature treatment. What is termed as 'Cold sterilization' of meat? 3 + 4 + 3=10
2. Define 'Hurdle Technology'. Briefly describe the role of Water activity in shelf- stable intermediate moisture meat. How vacuum packaging facilitates meat preservation? 3 + 4 + 3=10
3. Briefly describe the 'Oil treatment' and 'Thermo-stabilization' methods of egg preservation. Write down the name of organisms responsible for causing 'green rot' & 'red rot' of eggs and changes seen in eggs due to these. 3 + 3 + 2 + 2=10
4. Write down different nutritional components present in poultry meat and discuss their role in human nutrition. What is the importance of packaging in meat industry? Discuss in brief about Controlled Atmosphere Packaging and Modified Atmosphere Packaging. 2 + 2 + 3 + 3=10
5. Categorize the proteins present in meat with examples. Define A-band, I-band, Z disc and sarcomere length. Explain 'Cold shortening' & 'Thaw rigor'. 2 + 4 + 4=10
6. Write short notes on any four- 2.5×4=10
 - (a) Composition & Nutritive value of Egg..
 - (b) Principles of HACCP methods in food safety.
 - (c) Hedonic scale.
 - (d) Role of FSSAI in controlling meat industry and market.
 - (e) DFD and PSE meat.
 - (f) Preparation of chicken sausage.
7. How the processing & value addition are important for a sustainable market? What are the different components of marketing? How 'grading' facilitates to attract target consumer in meat industry marketing? What are the main challenges in our country for the meat industry being a organized sector?- discuss with your recommendations. 2 + 3 + 2 + 3=10

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Answer **any five** questions

1. Write short note on the nutritive value of chicken egg. Enumerate the methods of grading of table eggs. Steps of ante-mortem inspection of poultry before slaughter. 3+3+4=10
2. How does curing and smoking is practiced for the preservation of chicken? What is cold sterilization? Common poultry diseases affecting quality of hatching eggs. Write about the packing of eggs for commercial marketing. 3+2+2+3=10
3. Write a note of market, marketing and market survey. Write the different components of marketing. What are the 'after sale service' and 'consumers education'? Define 'grading'. 3+3+2+2=10
4. Write on 'scope of poultry processing technology' in India and sustainable poultry development. 10
5. Write about spoilage of shelled eggs showing appropriate examples. 10
6. Enumerate the handling, processing, packing, and transport of eggs. 10
7. Write short notes (any four): 2.5×4=10
 - a) Tandoori chicken
 - b) Scalding of poultry
 - c) Haugh Unit of eggs
 - d) pH of meat
 - e) Evisceration

M.Sc. Examination, 2022
Semester-III
Animal Science (Poultry)
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Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer **any five** questions

1. Define broiler. Write the flow diagram of 'Ready to cook Chicken' processing. What is giblet?
2+6+2=10
2. What is value added products of poultry. Name some important such products. Write briefly on chicken sausage preparation.
2+3+5=10
3. Write the chemical composition and nutritive value of poultry meat and egg. 10
4. Write the principle of egg preservation and describe different methods of egg preservations. 2+8=10
5. What is air space of an egg? How it's related to egg quality. What is Haugh unit, Albumin index and Yolk index of an egg.
2+2+6=10
6. What is marketing channel for poultry and eggs in India? What will be your suggestion to support marketing system for maintaining due pricing of the products for the interest of the consumers.
3+7=10
7. Describe the sanitary and phyto-sanitary measures for ensuring safety of poultry meat and egg. 10

M.Sc. Examination, 2023
Semester-III
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Time: Three Hours

Full Marks: 50

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Answer **any five** questions

1. Define broiler. Write the flow diagram of 'Ready to cook Chicken' processing. What is giblet?
2+6+2=10
2. What is value added products of poultry. Name some important such products. Write briefly on chicken sausage preparation.
2+3+5=10
3. Write the chemical composition and nutritive value of poultry meat and egg.
5+5=10
4. Write the Principle of egg preservation and describe different methods of egg preservations.
2+8=10
5. What is air space of an egg. How it's related to egg quality. What is Haugh unit, Albumin index and Yolk index of an egg.
2+2+6=10
6. What is marketing channel for poultry and eggs in India. What will be your suggestion to support marketing system for maintaining due pricing of the products for the interest of the consumers.
3+7=10
7. Describe the sanitary and phyto-sanitary measures for ensuring safety of poultry meat and egg.
10

M.Sc. Examination, 2017
Semester-III
Animal Science (Poultry)
Course: PSC-508
(Poultry Economics, Projects and Marketing)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

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|--|----------|
| 1. Enumerate the scope of broiler production in India. | 10 |
| 2. Draw and describe the incubator used for poultry production. | 10 |
| 3. What are factors to be considered for cost of production egg? | 10 |
| 4. Prepare a project for 1000 layer birds. | 10 |
| 5. Mention the marketing channels for eggs and meat in West Bengal condition. | 10 |
| 6. How you can improve the efficiency and reduce the production cost of broiler? | 10 |
| 7. Write short notes on (any four): | 4×2.5=10 |
| a) Bank norms for poultry projects | |
| b) Feed conversion Ratio | |
| c) Hatchery waste management | |
| d) Benefit: Cost Ratio | |
| e) Poultry insurance | |
| f) Production standards | |

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Answer any five questions

1. Prepare a typical financial statement for setting up 1000 layer birds. 10
2. Mention the incubation requirements for different types of poultry birds. Write down the incubator management from onset to hatching of eggs. 5+5=10
3. Write down the benefits and limitations of poultry farming. 10
4. Enumerate the factors affecting economic returns of poultry farming. 10
5. Mention the marketing channels and price-spread in broiler marketing. 10
6. Write down the different ways to reduce the cost of production to maximize the profit. 10
7. Write short notes on (any four): 4×2.5=10
 - a) Poultry bi-products
 - b) Law of diminishing returns
 - c) Marketing of egg
 - d) Different poultry insurance scheme
 - e) Feed conversion ratio
 - f) Scope of poultry farming in West Bengal

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Answer any five questions

1. What do you mean by FCR? In broiler production how FCR is related with the profit of the farm? 10
2. What is the meaning of Project? How project is related with the running of poultry farm? 10
3. What are the points to be considered for maximization of profit in layer farm? Describe in details. 10
4. What are the different marketing channels operated in West Bengal for poultry products? 10
5. What do you mean by Calorie-protein ratio? How is it related to production in layer farm? 10
6. Mention the Agrark standards for market table egg. Prepare a financial statement for 100 broiler birds (fowl). 10
7. Write short note on (any four): 2.5×4=10
 - i) Grading of egg
 - ii) Benefits and limitation of poultry farming
 - iii) Sexing of chicks
 - iv) Turning of eggs
 - v) Packing of chicks
 - vi) Advantages of Deep litter system.

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Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

- | | |
|---|----------|
| 1. Mention the marketing channels for eggs and meat in West Bengal condition. | 10 |
| 2. Prepare the project for 1000 layer birds. | 10 |
| 3. Write down the different ways to reduce the cost of production to maximize the profit. | 10 |
| 4. State the different poultry insurance scheme applicable in West Bengal. | 10 |
| 5. Write down the benefits & limitations of poultry farming in West Bengal. | 10 |
| 6. Enumerate the factors affecting economic returns of poultry farming. | 10 |
| 7. Write short notes on : (any four) | 2.5×4=10 |
| a) Benefit: cost ratio. | |
| b) Production standards. | |
| c) External qualities of eggs. | |
| d) Poultry bi-products. | |
| e) Broiler marketing | |
| f) Economic traits of poultry. | |

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Questions are of value as indicated in the margin.

Answer any five questions

1. What are factors to be considered for cost of production egg? 10
2. What are different performance efficiency measures in broilers? Explain the different elements of project report on layer poultry production. 5+5=10
3. Write short notes on any four of the following:
 - i) Poultry insurance scheme
 - ii) Feed Conversion Ratio (FCR)
 - iii) Low-cost technology in poultry production
 - iv) Egg: Feed Price Ratio (EFPR)
 - v) SWOT analysis in Broiler farming
4. Mention the marketing channels for egg and meat in West Bengal. 10
5. What are points to be considered for maximization of profit in layer farm? Describe in detail. 10
6. Write down the benefits and limitations of poultry farming. 10
7. Describe in brief: 2.5×4=10
 - i) Grading of egg
 - ii) Packaging of chicks
 - iii) Turning of chicks
 - iv) Cost of production

M.Sc. Examination, 2022
Semester-III
Animal Science (Poultry)
Course: PSC-508
(Poultry Economics, Projects and Marketing)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

1. What are factors to be considered for cost of production egg? 10
2. How you can improve the efficiency and reduce the production cost of broiler? 10
3. Write down the benefits and limitations of poultry farming. 5+5=10
4. What is the meaning of Project? How project is related with the running of poultry farm? 2+8=10
5. What are the different marketing channels operated in West Bengal for poultry products? 10
6. What do you mean by Calorie-protein ratio? How is it related to production in layer farm? 2+8=10
7. Write short notes on (any four): 2.5×4=10
 - a) Poultry insurance
 - b) Law of diminishing returns
 - c) Scope of poultry farming in West Bengal
 - d) Grading of egg
 - e) Packing of chicks
 - f) SWOT analysis in Broiler farming

M.Sc. Examination, 2017

Semester-III

Animal Science (Poultry)

Course: PSC-515

(Poultry Wastes Management, integrated fish farming with poultry production Bio-technological intervention and Environment)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

1. How poultry Waste affects environment. Name the different poultry-wastes produced in poultry industry, slaughter house and processing unit. 10
2. State the slaughter house by-product of poultry. How they can be preserved/ utilized in fish production. Name the fishes, can be cultured through poultry refusals. 10
3. How poultry-litter can be utilized in vermicompost productions. State the process of good quality vermicompost production from poultry litter. 10
4. Enumerate your idea in bio-gas production from poultry litters. Reflect its proper utilization to save energy. 10
5. Write short notes (any four): 2.5×4=10
 - a) Eradication
 - b) Manure Pellets
 - c) Litter re-use
 - d) Bio-Fuel, a source of industry
 - e) Anaerobic digestion of poultry wastes
6. How poultry manure can be utilized as animal feed? State the process utilized with precautions. 10
7. State in brief the idea of electric generation device with an idea 'Litter is fuel' vis-à-vis minimizes the environmental pollution. 10
8. Define Zoonosis. State the principle to prevent and control epidemic diseases of poultry with a special reference to 'Bird-Flu'. 10

M.Sc. Examination, 2018

Semester-III

Animal Science (Poultry)

Course: PSC-515

(Poultry Wastes Management, integrated fish farming with poultry production Bio-technological intervention and Environment)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

1. Describe the effect of light in growth, reproduction and performance of layer birds with special reference to the mechanism of light-effects. 10
2. State the effect of temperature & climate in Poultry production. Give the different types ventilation with advantages & disadvantages. 10
3. Write down by-products of poultry and its utilization in fish production. Name the fishes, can be cultured through poultry refusals. 10
4. Describe the hygienic methods of poultry-dropping management from battery-cage & deep litter system. 10
5. Write an essay on hatchery by-products management to avoid losses economically as well as to prevent contaminations. 10
6. Enumerate your idea in bio-gas production through anaerobic digestion from poultry litters. Reflect its proper utilization to save energy. 10
7. Write short notes (any four): 2.5×4=10
 - I. Feather meal
 - II. Poultry litter, a source of electricity generation
 - III. Litter management
 - IV. Zoonosis and 'bird flu'
 - V. Scientific Poultry-house
8. Discuss solid-waste management in Poultry Industry and its utilization with a special care on environment. 10

M.Sc. Examination, 2019

Semester-III

Animal Science (Poultry)

Course: PSC-515

(Poultry Wastes Management, integrated fish farming with poultry production Bio-technological intervention and Environment)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

1. Describe different hygienic methods practiced in poultry house with illustrations. 10
2. Discuss solid-waste management in poultry industry and its utilization with a special care on environment. 10
3. What do you mean by 'bio-security'? What are the different bio-secorial measures followed in poultry farm? 10
4. What are the different bio-technical operations followed to protect the environment? Discuss. 10
5. How ventilation affects on poultry production? What are the different methods of ventilation in poultry house? 10
6. What do you mean by 'litter management'? How it affects on production? 10
7. Write short note on (any four): 2.5×4=10
 - a) Bird flu
 - b) Zoonosis
 - c) Battery cage
 - d) Green house effect
 - e) Hatchery Bi-products
 - f) Anaerobic digestion

M.Sc. Examination, 2020

Semester-III

Animal Science (Poultry)

Course: PSC-515

(Poultry Wastes Management, integrated fish farming with poultry production Bio-technological intervention and Environment)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

1. Name some Hatchery wastes. Write down different uses of poultry feathers & offals. What is 'Mixed Poultry By-products Meal' (MPBM)? 2+3+3+2=10
2. What is BOD and COD? Write down the principles of Effluent Treatment Plant. Briefly describe wet rendering and dry rendering. 2+4+2+2=10
3. Recommend an ideal mixed farming protocol considering your local agricultural land pattern, farming interest and climate condition with proper justifications. What is 'Integrated slaughterhouse' and why it is more organized? Discuss. 4+3+3=10
4. 'No body part of poultry carcass in an absolute waste' – discuss. Describe in brief about eco-friendly waste management of a poultry abattoir. State the principles of 'Bio-gas' production. 3+4+3=10
5. Write down the steps involved in production of livestock feeds from poultry manure. What will be your recommendation for a commercial poultry house regarding housing, management, ventilation and control of disease outbreak? 3+2+5=10
6. Prepare a SOP with flow diagram to prescribe operational guidelines to a commercial layer cum hatchery unit. 10
7. Write short notes on (any four): 2.5×4=10
 - a) Poultry manure as a fertilizer
 - b) Bio-security measures
 - c) Meat cum Bone Meal
 - d) Use of Blood as By-product
 - e) Important diseases and their lesions in Post-mortem Examination of poultry
 - f) Conversion of collagen to gelatin

M.Sc. Examination, 2021

Semester-III

Animal Science (Poultry)

Course: PSC-515

(Poultry Wastes Management, integrated fish farming with poultry production Bio-technological intervention and Environment)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

1. Write briefly on poultry-farm wastes and their utility. 5+5=10
2. What is poultry slaughter house ley products? Write uses and importances of any two such products. 4+6=10
3. What is the importance of Bio-technology in enhancing the productivity in a poultry farm? Write some specific examples on this aspect. 6+4=10
4. How does the poultry farming affect the environment? Give some remedial measures to control such problem. 5+5=10
5. Give an outline of processing of poultry offals for the utilization of such item as fish feed. 10
6. What is the meaning of 'bio-security'? How this can be used for litter poultry farming with maximum benefit for the poultry industry? 4+6=10
7. Write short notes on (any four): 2.5×4=10
 - a) Poultry waste management
 - b) Integrated fish farm with poultry farming
 - c) N:P:K ratio and poultry manure & droppings.
 - d) BOD/ COD
 - e) Rendering of poultry waste materials from a processing unit

M.Sc. Examination, 2022

Semester-III

Animal Science (Poultry)

Course: PSC-515

(Poultry Wastes Management, integrated fish farming with poultry production Bio-technological intervention and Environment)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer any five questions

1. State by-products of poultry and its utilization in fish production. Name the fishes, can be cultured through poultry refusals. 5+5=10
2. Write down different methods of ventilations used in poultry farm for optimum production. 10
3. Describe different hygienic methods practiced in poultry house with illustrations. 10
4. What do you mean by 'bio-security'? What are the different bio-secorial measures followed in poultry farm? 2+8=10
5. How Poultry Waste affects environment? Name the different poultry waste produced in poultry industry, slaughter house and processing unit. 3+7=10
6. Enumerate your idea in bi-gas production from poultry litters. Reflect its proper utilization to save energy. 6+4=10
7. Write short notes (any four): 2.5×4=10
 - a) Litter re-use
 - b) Bio-Fuel, a source from poultry industry.
 - c) Battery cage
 - d) Green house effect
 - e) Zoonosis and 'bird flu'