M.Sc. Examination, 2017

Semester-II

Animal Science (Poultry)

Course: PSC-505

(Breeder Stock and Hatchery Management)

Time: Three Hours **Full Marks: 50**

Questions are of value as indicated in the margin.

Answer any five questions

1. What do you mean by incubation? What are the factors essential for incubation? Write down the points to be considered for selection of hatching egg. 2+4+4=10
2. What is brooding? What are the different types of brooding? Mention the brooding temperature of poultry birds. Layout and design a brooder house. 2+2+2+4=10
3. Write in brief regarding the vaccination schedule of layer and broiler birds. 5+5=10
4. Write down the aetiology, symptoms, treatment and prevention of one viral and one bacterial disease of fowl. 5+5=10
5. What do you mean by restricted feeding? How it is done? What do you mean by calorie-protein ratio? 2+4+4=10
6. What is Coccidiosis? How it affects the poultry birds and how can it be controlled? 2+3+5=10
7. Write short notes on (any four)
   a) Bio-security
   b) Culling
   c) Egg bound condition
   d) Aspergillosis
   e) Fumigation
   f) Hatchery waste

M.Sc. Examination, 2018

Semester-II

Animal Science (Poultry)

Course: PSC-505

(Breeder Stock and Hatchery Management)

Time: Three Hours **Full Marks: 50**

Questions are of value as indicated in the margin.

Answer any five questions

1. Enlist the viral diseases of fowl. Mention the route of infection, symptom and treatment along with prevention of the enlisted viral diseases. 3+7=10
2. Write down different foods enriched with carbohydrate, protein and fat. What do you mean by computation of ration? How is it done for layer birds? 4+2+4=10
3. Name four species of coccidia in fowl. Mention the route of infection. How it can be prevented? 4+2+2=10
4. How you can fumigate the incubator before setting the egg? What are temperature and humidity requirement for incubator for different egg? 4+6=10
5. What do you mean by farm routine operation? What is the importance of keeping farm records in layer and broiler farm? 4+6=10
6. Write the meaning of breeder stock. How is it maintained? How is it different from commercial stock? 2+4+4=10
7. Write short notes on (***any four***): 2.5×4=10
   a) Factors affecting hatchability
   b) Sterility
   c) Hatchery borne diseases
   d) Feeding of breeder stock
   e) Waste disposal in poultry farm
   f) Ectoparasitic infestation in poultry

M.Sc. Examination, 2019

Semester-II

Animal Science (Poultry)

Course: PSC-505

(Breeder Stock and Hatchery Management)

Time: Three Hours **Full Marks: 50**

Questions are of value as indicated in the margin.

Answer any five questions

1. a) What are the different methods of incubation?
   b) Write the merits and demerits of the different methods. 4+6=10

2. a) What are the points to be consider for selection of eggs for incubator?
   b) Mention the temperature and humidity requirement during Incubation and hatching. 6+4=10

3. a) Enumerate the different brooding systems adopted in poultry.
   b) Write down the methods of mating in poultry. 5+5=10

4. a) What are the different types of abnormal eggs?
   b) Mention the incubation period (days) and egg weight (gm) for fowl, duck, quail and guinea fowl. 5+5=10

5. a) Write down the different hatchery borne diseases.
   b) How it affects the economic aspect in poultry farming? 6+4=10

6. a) How breeder stock is maintained?
   b) Mention the silent features of breeder stock. 4+6=10

7. Write short notes on (**any four**): 2.5×4=10
   a) Brooding Management
   b) Candling
   c) Debeaking
   d) Green diarrhea
   e) Fumigation
   f) Hatchability
   g) Commercial stock

M.Sc. Examination, 2022

Semester-II

Animal Science (Poultry)

Course: PSC-505

(Breeder Stock and Hatchery Management)

Time: Three Hours **Full Marks: 50**

Questions are of value as indicated in the margin.

Answer any five questions

1. Enumerate the different brooding systems adopted in poultry. Write down the methods of mating poultry. 5+5=10
2. What are the different types of abnormal eggs? Mention the incubation period (days) and egg weight (gm) for fowl, duck, quail and guinea fowl. 5+5=10
3. Write down the different hatchery borne diseases. How it affects the economic aspect in poultry farming? 6+4=10
4. What do you mean by incubation? What are the factors essential for incubation? Write down the points to be considered for selection of hatching egg. 2+4+4=10
5. What do you mean by farm routine operation? What is the importance of keeping farm records in layer and broiler farm? 4+6=10
6. Write the meaning of breeder stock. How is it maintained? How is it different from commercial stock? 2+4+4=10
7. Write short notes on (***any four***): 2.5×4=10
   a) Factors affecting hatchability
   b) Candling
   c) Fumigation
   d) Commercial stock
   e) Egg bound condition
   f) Hatchery waste

M.Sc. Examination, 2023

Semester-II

Animal Science (Poultry)

Course: PSC-505

(Breeder Stock and Hatchery Management)

Time: Three Hours **Full Marks: 50**

Questions are of value as indicated in the margin.

Answer any five questions

1. What do you mean by incubation? What are the factors essential for incubation? Write down the points to be considered for selection of hatching egg. 2+4+4=10
2. What is brooding? What are the different types of brooding? Mention the brooding temperature of poultry birds. Layout and design a brooder house. 2+2+2+4=10
3. Write the meaning of breeder stock. How is it maintained? How is it different from commercial stock? 2+4+4=10
4. Write down the different hatchery borne diseases. How it affects the economic aspect in poultry farming? 6+4=10
5. What do you mean by Hatchability? What is the hatching percentage of different poultry? How can you improve the hatching percentage in poultry? 2+4+4=10
6. What are the points to be considered for higher hatching percentage? Mention regarding the housing arrangement of breeder stock. 5+5=10

7. Write short notes on (any four): 2.5×4=10
   a) Bio-security
   b) Aspergillosis
   c) Feeding of breeder stock
   d) Waste disposal in breeder house
   e) Micro-climate for breeder house
   f) Importance of ventilation in poultry house

VISVA-BHARATI
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DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2017 (Second Sem)
Course: PSC- 506
(Management of Poultry other than Chicken)

Time: 3 Hours **Max Marks: 50**

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

1) a) What are the common standard varieties of turkey? 2
   b) Describe the feeding standard and prime toxicity in ducks. 5
   c) How does sexing perform in geese under commercial farming practices? 3

2) a) Enumerate the breeding behavior of ostrich. 2
   b) Baby guinea-fowl is known as _____. 1
   c) What are the common health problems occurred in budgerigar? 5
   d) Write about the advantages of quail farming. 2

3) a) Describe the different rearing system followed for duck management. 5
   b) How do you differentiate matured male and female turkey? 2
   c) Write about production performance of quails in commercial point of view. 3

4) a) What do you know about phase feeding in ducks? 2
   b) Incubation period of pigeon egg is _____ days. 1
   c) Write about breeding policies of egg production in guinea-fowl. 2
   d) Describe the shelter and management of emu birds under farming condition. 5

5) Write short notes on: 2×5=10
   a) Male Duck
   b) Varieties of Indian guinea-fowl
   c) Dewbill or snood
   d) Duck plague

P.T.O

e) Emu products

6) a) Standard weight of quail egg 10g/12g/15g. 1
b) Explain the nutritional management in geese. 3
c) What are the common diseases and their prevention in turkey? 4
d) Write a note on the cage management of budgerigar. 2

7) a) What are the common Indian breeds of Pigeon? 3
b) Marketing age of turkey for meat purpose is _____ weeks. 1
c) Describe the incubation and hatching principles of duck eggs. 5
d) Incubation period of ostrich egg is 40/42/45 days. 1

8) a) Write about meat type breeds of duck. 2
b) What are the feeding regimes off egg type quail under different stages of life? 4
c) Enumerate the common health problem in budgerigar. 3
d) Average age of starting egg laying in indigenous guinea-fowl is _____ weeks 1.

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Final Examination – Theory 2018 (Second Sem)
Course: PSC- 506
(Management of Poultry other than Chicken)

Time: 3 Hours **Max Marks: 50**

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

1. a) Advantages of Duck rearing over chicken. 2
   b) Describe the standard husbandry practices in duck. 5
   c) Write about common diseases and control measures in duck. 3

2. a) Turkey is biologically known as _____. 2
   b) Enumerate the breeding behavior of ostrich. 3
   c) Describe the feeding management in commercial quail production. 5

3. a) What are the common characteristic features of geese? 3
   b) Write about the management of raising gosling. 2
   c) Enumerate the feeding and management practices of Goose. 5

4. a) What do you mean by restricted feeding in duck? 2
   b) The average weight of quail egg is _____ gram. 1
   c) What do you mean by the breeding policies of egg production in guinea fowl? 2
   d) Describe the shelter and management of ostrich birds under farming condition. 5

5. Short notes on: 2×5=10
   a) Emu Products
   b) Foie Gras
   c) Breed of Duck
   d) Aspergillosis
   e) Duck Plague

P.T.O.

6. a) Incubation period of common duck and pigeon are _____ & _____ days. 2
   b) Explain the nutritional management in geese. 3
   c) What are the common diseases and their prevention in turkey? 5

7. a) What are the common Indian breeds of Pigeon? 2
   b) Economic importance of turkey in India. 3
   c) Describe the incubation and hatching principles of Japanese quail eggs. 5

8. a) How do you differentiate matured male and female turkey? 2
   b) Write about the housing management of Budgerigar. 3
   c) What are the common health problems in Budgerigar? 3
   d) What is hen day and hen house egg production? 2

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Final Examination – Theory 2019 (Second Sem)
Course: PSC- 506
(Management of Poultry other than Chicken)

Time: 3 Hours **Max Marks: 50**

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

A) State True or False: 0.5×10=5

i) Skin of the birds is relatively free of secretary gland.
ii) Preen gland which is located on the upper part of tail is important, particularly for aquatic birds.
iii) Comb and wattle are sensitive sex hormones and consequently serve as indicators of secondary sex characteristics.
iv) Red muscle fibres contain large quantities of myoglobins than white fibres and thereby favour aerobic production and utilization of energy which is conducive to prolonged activity.
v) Unlike mammals, during respiration the avian lung does not expand and contract upon inspiration and expiration, respectively.
vi) Gall bladder is absent in pigeons.
vii) Carnivorous birds have substantially shorter intestine than herbivorous birds.
viii) Protein digestion in birds is initiated in crop.
ix) Birds excrete urea as primary nitrogenous metabolite as that of mammals.
x) *Dromaius novaehollandiae* is the scientific name of ostrich.

B) Fill in the blanks with most appropriate words: 0.5×10=5

i) Birds can not drink water with their heads in downward position due to absence of _____.
ii) Average weight of an egg of a goose is _____.
iii) Testes of birds remain in _____ cavity.

iv) The fleshy protuberance at the base of the upper beak in turkey is known as _____.
v) Incubation periods of a pigeon egg is _____.
vi) Among poultry species other than chicken, highest incidence of parthenogenesis has been reported in _____.
vii) Guinea fowl is native to _____ continent.
viii) _____ is the largest bird in the world and is the only bird which eliminates its urine and faeces separately.
ix) Homer, White King and Swiss Mondaines are most popular varieties of _____.
x) Toulose, Embeden and African are principal meat producing varieties of _____.

2. a) Define brooding.
b) Enlist and discuss the chief requisites for successful brooding.
c) Discuss about the brooding of turkey poults. 1+5+4=10

3. a) Write the key points of scientific husbandry practices for egg type duck.
b) Discuss the important aspects for collection and storage of hatchable duck eggs.
c) Mention the required conditions to be maintained in the setter and hatcher for incubation of duck egg. 4+3+3=10

4. a) Write scientific name of quails.
b) How do you differentiate adult male and adult female quails?
c) Why do you recommend quail farming to a new entrepreneur?
d) Enlist different standard varieties of turkey. 1+2+5+2=10

5) a) Write in brief about physical features, management requirement and roduction aspects of ostrich.
b) Wrote short notes on emu farming. 5+5=10

6) Prepare a project report of a farm maintain 500 while pekin duck for five years. You should mention the important assumptions, input cost and return statement along with loan repayment (if any). 4+4+2=10

7) a) What kind of measures can be taken in the farm to prevent disease outbreak?
b) What steps should be taken to control spread of high pathogenic Avian influenza on the face of outbreak?
c) What type of measures may be taken in a breeder farm to control vertically transmitted disease? 4+3+3=10

8) Write short notes on the following (any four): 2.5×4=10

a) Fois gras

b) Aspergillosis

c) Duck Plague

d) Hen day egg production

e) Management of budgerigar

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DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2022 (Second Sem)
Course: PSC- 506
(Management of Poultry other than Chicken)

Time: 3 Hours **Max Marks: 50**

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

1. Write down the advantages & disadvantages of quail farming in India with special reference to West Bengal. 10

2. Fill in the gaps (any ten): 1×10=10
   a) The average weight of quail egg is _____ gram.
   b) Baby Guinea fowl is known as _____.
   c) Marketing age of turkey for meat purpose is _____ weeks.
   d) Incubation period of ostrich egg is _____ days.
   e) Average age of starting egg laying in indigenous guinea-fowl is _____weeks.
   f) Guinea fowl is native to _____ continent.
   g) _____ is the largest bird in the world and is the only bird which eliminates its urine and faeces separately.
   h) Testse of birds remain in _____ capacity.
   i) Scientific name of duck is _____.
   j) Average weight of turkey egg is_____ gram.
   k) Birds can't drink water with their heads in downward position due to absence of _____.

3. Write short notes on (any four): 2.5×4=10
a) Duck Plague
b) Foie gras
c) Hen day production
d) Dew bill or snood

e) Restricted feeding in duck

4. a) What are the common diseases and their prevention in turkey? 6+4=10
   b) Write down the economic importance of turkey in India.

5. a) write down the advantages of duck rearing over fowl. 4+6=10
   b) Describe the standard husbandry practices in duck.

6. a) What do you mean by `Bio-security'? 2+8=10
   b) Enumerate different ways to adopt bio-security in poultry farm.

7. a) Write at least two different breeds of duck, quail, turkey, guinea-fowl and emu birds.
   b) Mention the brooding & incubation temperature of the above mentioned five birds.
   5+5=10

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Final Examination – Theory 2023 (Second Sem)
Course: PSC- 506
(Management of Poultry other than Chicken)

Time: 3 Hours **Max Marks: 50**

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

1. Write down the advantages & disadvantages of quail farming in India with special reference to West Bengal. 10

2. Fill in the gaps (any ten): 1×10=10

a) The average weight of duck egg is _____ gram.
b) Baby Guinea fowl is known as _____.
c) Marketing age of turkey for meat purpose is _____ weeks.
d) Incubation period of duck egg is _____ days.
e) Average age of starting egg laying in indigenous guinea-fowl is _____weeks.
f) Guinea fowl is native to _____ continent.
g) Male-Female ratio in quail is _____ for fertile egg production.
h) Scientific name of quail is _____.
i) Average weight of turkey egg is_____ gram.
j) _____ and _____ are the duck breeds famous for egg and meat production respectively.

3. Chalk down your idea on (any two): 2x5=10

a) Superiority of duck egg over chicken egg
b) 'Restricted feeding' over 'feeding ad lib' to birds
c) Feeding of Pellets vs mash feed

4. Write clown the prospect and future of turkey production in India. What are the common diseases prevalent in turkey? 5+5=10

P.T.O

5. Write down the common diseases being encountered in backyard duck farming and how to overcome them. 10

6. Short notes (any two): 2x5=10

a) Feeding of quail birds.

b) Housing of EMU birds.

c) Aflatoxin sensitivity of ducks

7. Write in brief on 'control and prevention of exotic diseases through import of poultry products and live birds'. 10

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DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2017 (Second Sem)
Course: PSC- 513
(Poultry Diseases, Pathological Changes and Diagnosis)

Time: 3 Hours **Max Marks: 50**

Answer any five questions of which question no. 8 is compulsory.

1. What is bird flu? What is the mode of transmission of this disease in poultry? Write the characteristic symptoms, gross and microscopic lesions of this disease. 2+2+6
2. Describe the pathology of Marek's disease. Describe the gross and microscopic lesion of pox in poultry. 5+5
3. Enumerate the name of poultry diseases caused by *E. Coli* infection. What are the characteristics necropsy findings of fowl typhoid? Describe the gross changes in mycoplasma infection in poultry. 2+4+4
4. What are the common fungal diseases of poultry? What is the gross and microscopical lesion of brooder pneumonia? What are the harmful effects of mycotoxin on poultry? 2+5+3
5. What are the species of coccidia commonly affect poultry? Briefly describe the symptoms, macroscopical and microscopical lesions in intestinal coccidiosis. 4+6
6. What is ranikhet disease? What are the strains of the etiological agent of the disease? Briefly describe the gross and microscopical lesion of this disease. 2+4+4
7. What is vertically transmitted poultry disease? Enumerate the names of vertically transmitted poultry disease. Briefly describe the differential diagnosis of IB and ILT infection on the basis of gross and microscopical lesion. 2+3+5
8. Briefly explain the following statements (**any five**): 5x2

a) Immuno suppression occurs in aflatoxicosis in poultry.
b) Neuropathy develops in Marek's disease.
c) Visceralgout develops in ochratoxicosis in poultry.
d) Immuno suppression develops in infectious bursal disease.
e) Blindness occurs in ammonia toxicity in poultry.
f) "Cooked meat appearance" of breast muscle in indicative necropsy finding of heat stress.

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DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2018 (Second Sem)
Course: PSC- 513
(Poultry Diseases, Pathological Changes and Diagnosis)

Time: 3 Hours **Max Marks: 50**

Answer any five questions of which question no. 1 is compulsory.

1. Choose the correct one from the given options (**any ten**): 0.5x 1 0=5.0

a) La Sota, Roakin.,B1 are different strains of viruses of which of the following viral diseases
i) Guniboro ii) Ranikhet iii) Infectious bronchitis iv) None of these

b) Antigenic Shift and antigenic drift are two different types of mutation observed in
i) ILT ii) 1B iii) IBD iv) Avian Influenza

c) Avian Influenza viruses are under the family of
i) Herpesviridae ii) Orthomyxoviridae iii) Paramyxoviridae iv) None of these

d) For which of the following viral disease of poultry bursa become atrophied
i) IBD ii) Ranikhet iii) Duck viral hepatitis iv) Avian influenza

e) In Vertical transmission process, the disease causing agent may be transmitted by
i) Egg ii) Food iii) Water iv) Droplet

f) Name the disease of chicken in which peripheral nerves are affected, visceral tumours are common and the feather from the affected birds is a potent source of infection.
i) Marek's Disease ii) Avian Leukosis Complex iii) Newcastle Disease iv) None of these

g) Bacillary White diarrhoea is caused by
i) *Salmonella gallinerum* ii) *Salmonella pullorum* iii) *Salmonella enteritidis* iv) *E. coli*

h) Yolk Sac infection is the commonest cause of mortality in chicks during first week of life is caused mostly by
i) Salmonella ii) E. coli iii) Paramyxovirus iv) Pasteurella

i) Fowl cholera is caused by
i) Pasteurella multocida ii) Streptococcus iii) Staphylococcus iv) E. coli

j) Identify the disease of bird, caused by a bacterial toxin with paralysis of leg, wing, neck and eye lid are prominent symptoms.
i) Botulism ii) Marek's disease iii) Omphalitis iv) Fowl cholera

k) Immunity resulted from vaccination may be classified under
i) Passive immunity ii) Active immunity iii) Innate immunity iv) None of these

l) Mycoplasina gallisepticum is associated with
i) Infectious Coryza ii) Chronic Respiratory Disease iii) Naval infection iv) Cholera

m) Aspergillosis or brooder pneumonia is caused by
i) bacteria ii) fungus iii) protozoa iv) virus

n) This species of birds are highly susceptible to a flatoxicosis
i) fowl ii) duck iii) turkey iv) quail

o) Coccidiosis is caused by
i) bacteria ii) fungus iii) protozoa iv) virus

2. Match side A with side B: 0.5x10=5.0

Side A	Side B
1. Encephalomalacia/Crazy chick disease	a) Biotin deficiency
2. Chondrodystrophy, Enlargement of hock joint is caused by the deficiency of this mineral	b) Carbonic anhydrase
3. Osteoporosis	c) Glutathion peroxydase
4. Polyneuritis/ star grazing posture	d) Iron (Fe)
5. Curled toe paralysis	e) Linoleic acid
6. This vitamin is not a dietary essential for poultry birds	f) Linolenic acid
7. Selenium is a constituent of this cellular enzyme	g) Magnesium
8. Fatty liver and kidney syndrome	h) Manganese
9. Haemoglobin contain	i) Vit B deficiency
10. Essential fatty acid	j) Vit B2 deficiency
	k) Vit D deficiency
	l) Vit E deficiency
	m) Vitamin C

3 Write short notes (**any five**): 2x5=10

a) Cannibolism
b) Cage layer fatigue
c) Lichi Heart disease
d) Vaccination schedule in layer bird
e) Probiotics
f) Gout in poultry birds
g) Common vices in poultry birds
h) Breast blisters

4. Define disease. How can a disease enter a poultry farm? What are the costs involved in a disease outbreak? How can we prevent and control a disease outbreak in a poultry farm? 1+3+2+4=10

5. What are the prerequisites to ensure the good health and maintenance of poultry on farm? List the most important post mortem lesions you would expect to find in broilers infected by virulent Infectious Bursal Disease. What are the major differences between Avian infectious bronchitis and Infectious laryngo-tracheitis. 4+3+3=10

6. Write down the major differences between Marek's disease and Avian Leukosis. Discuss about the control measures for coccidiosis. How will you control parasitic diseases in poultry birds? 3+3+4=10

7. What are the harmful effects of mycotoxicosis in poultry? What measures can be taken to control mycotoxicosis? Briefly describe about the Chronic Respiratory Disease. 3+3+4=10

8. What is Bird Flu? What do you mean by HPAI? Write the Symptoms, Post mortem lesions and control measures of Avian Influenza. 2+2+6=10

9. What is Ascites syndrome? Enumerate the name of the disease caused by *E. coli* infection. Discuss briefly about duck viral enteritis. 2+2+6=10

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DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2019 (Second Sem)
Course: PSC- 513
(Poultry Diseases, Pathological Changes and Diagnosis)

Time: 3 Hours **Max Marks: 50**

Answer any five questions of which question no. 1 is compulsory.

1. A. Choose the correct one from the given options: 0.5x 10=5

a) Exudative diathesis is caused by the deficiency of

i) Vitamin C ii) Vitamin E iii) Vitamin B-complex iv) Vitamin H

b) Massachusetts strains of virus under Coronaviridae family outbreaks the disease of

i) Infectious bursal disease ii) New castle disease iii) Fowl typhoid iv) None of the above

c) Sciatic nerve thickened, striated and lost its glistening appearance is the post mortem lesion of

i) Marek's disease ii) Colibacillosis iii) Infectious laryngo tracheitis (ILT) iv) All of the above.

d) Doyle's disease is the synonym of

i) Omphalitis ii) Infectious coryza iii) Egg drop syndrome (EDS) 76 iv) Ranikhet disease

e) Mushy chick disease in poultry is a common problem induced by mismanagement of

i) Hatchery operation ii) Brooder farm operation iii) Grower farm operation iv) Layer farm operation

f) Immunity obtained following vaccination may be classified as

i) Active immunity ii) Passive immunity iii) Innate immunity iv) None of the above

g) Thiamin (B 1 vitamin) deficiency is associated with

i) Star grazing condition ii) Crazy Chick disease iii) Muscular dystrophy iv) Curl-toe paralysis

h) Selenium is a constituent of cellular enzyme

i) Aspartate dehydrogenase ii) Carbonic anhydrase iii) Glutathion peroxidase iv) None of the above

i) Cocivac- T(R) vaccine is prepared with all the pathogenic species of coccidia for

i) Chicken ii) Turkey iii) Japanese quail iv) All the above

j) Micromelia (skeletal deformities) in chicken is resulted due to the deficiency of

i) Copper ii) Manganese iii) Zinc iv) Magnesium

B. Match side A with side B. 0.5x 10=5

SL. No.	side A	side B
1	Bacillary White Diarrhoea	Vitamin E deficiency
2	Encephalomalacia/Crazy chick disease	Gumboro disease
3	Caecal coccidiosis	C-type retrovirus (RNA virus)
4	Brooder Pneumonia	*Pasteurella multocida*
5	Essential fatty acid	*Salmonella pullorum*
6	Mukteswar strain (R_2B vaccine)	Linoleic acid
7	Avian leukosis complex	Aspergillus flavus
8	Patchy haemorrhage at the junction of gizzard and proventriculus	Herpes virus (DNA virus)
9	Fowl cholera	Ranikhet disease
10	Duck viral enteritis	*Eimeria tenella*

2. Write short notes (any five) : 2x5=10

a) Star grazing
b) Aflatoxicosis
c) Ulcerative enteritis
d) Avian Influenza variants
e) Wing rot
f) Omphalitis
g) Thrush

3. Write in detail about the SPF egg production. Briefly enumerate the various sanitary and disinfection measures strictly followed in poultry incubators. 5+5=10

4. Explain the different leg abnormalities occur in commercial broilers. What are the water quality standards for poultry? Write about the deficiency diseases of vitamin E in poultry. 3+2+5=10

5. What do you mean by Egg Drop Syndrome (EDS) 76? What are the major Post Mortem (PM) lesions you would expect in New Castle Disease/Ranikhet disease? What are the common signs and symptoms of Duck Plague? 3+4+3=10

6. What do you mean by Hjarre's disease? What measures to be recommended to control the common vices in poultry birds? Briefly enumerate the deficiency symptoms of water soluble vitamins in poultry. 2+3+5=10

7. Write about the nuisance of ecto-parasites in poultry and their control measures. How does vitamin E and selenium are sparing to minimize the metabolic diseases of poultry? Describe the managemental problems and their control measures in poultry during peak rainy and summer season in West Bengal. 3+2+5=10

8. What is vertical transmission and write down the common poultry diseases belong to this category? How Infectious Bronchitis (IB) and Infectious Laryngo Tracheitis (ILT) are more harmful for layer industry? What measures to be adopted for the prevention and control of a disease outbreak in a poultry farm? 4+2+4=10

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Final Examination – Theory 2022 (Second Sem)
Course: PSC- 513
(Poultry Diseases, Pathological Changes and Diagnosis)

Time: 3 Hours **Max Marks: 50**

Answer any five questions of which question no. 8 is compulsory.

1) What is Infectious Bursal Disease? Write the etiology, characteristic symptoms, gross and microscopic lesions of this disease. 2+8=10
2) Describe the gross and microscopic lesion of avian infections bronchitis. Enumerate different myeotoxin which produce disease in poultry. Write the characteristic necropsy finding of Brooder's pneumonia. 5+2+3=10
3) Describe the characteristic Symptom and necropsy finding of Duck cholera. Write the characteristic symptoms and necropsy finding of Duck plague. 5+5=10
4) What is salmonellosis? Describe the mode of transmission, characteristic symptoms and gross and microscopic pathological lesions of Salmonellosis. 2+8=10
5) Describe the characteristic symptoms and gross and microscopic lesions of fowl cholera. Describe the characteristic symptoms and gross and microscopic lesions of chronic Respiratory Disease. 5+5=10
6) Enumerate the poultry diseases caused by E-coli infection. What is the mode of transmission, characteristic symptoms, gross and microscopic lesions of Ranikhet disease? 2+8=10
7) Enumerate the different species of Coccidia commonly affect poultry. Describe the mode of transmission, characteristic symptoms, and pathological lesions of cocoidiosis. 2+8=10
8) Explain why (any five): 2 x5=10
   a) Immunosuppression caused by Infectious Bursal Disease
   b) Kidney stones or Uroliths may be found in layer birds affected by Avian Infectious Bronchitis
   c) Neuropathy develops in Marek's disease
   d) Lime is suggested to be sprinkled over the litter in rainy season to prevent coccidiosis
   e) Ranikhet disease and avian influenza can be confused
   f) 'Cooked Meat Appearance' of breast muscle is indicative necropsy finding of heat stress.

VISVA-BHARATI
PALLI SIKSHA BHAVANA
(INSTITUTE OF AGRICULTURE)
DEPARTMENT OF ANIMAL SCIENCE

Final Examination – Theory 2023 (Second Sem)
Course: PSC- 513
(Poultry Diseases, Pathological Changes and Diagnosis)

Time: 3 Hours **Max Marks: 50**

Answer any five questions

1. Write short notes on (any five). 2 x 5 =10
 a) Aetiology of Newcastle disease with their pathotypes
 b) Aetiology of mycotoxicosis in poultry
 c) Ascaridia galli in chickens
 d) Bumblefoot in ducks
 e) "Curled toe paralysis"
 f) Post-mortem changes of collibacillosis in chickens
 g) "Crazy chick disease"
 h) Exudative diathesis in poultry

2. Write in detail about the aetiology, clinical symptoms, post-mortem changes and diagnosis of Marek's disease. 10

3. Write in detail about the aetiology, clinical symptoms, and diagnosis of Fowl Typhoid. 10

4. Write in detail about the epidemiology, predisposing factors and post-mortem changes of Infectious Bursal Disease (IBD) of poultry. 10

5. Write in detail about the aetiology, clinical symptoms, post-mortem changes and diagnosis of Duck Plague. 10

6. Write in detail about the clinical symptoms, post-mortem changes and diagnosis of brooder pneumonia. 10

7. Write in detail about the clinical symptoms, post-mortem changes and diagnosis of Newcastle disease. 10

8. Write in detail about the predisposing factors, post-mortem changes and diagnosis of Bacillary White Diarrhoea (BWD). 10

M.SC. Examination, 2017

Semester-II

Animal Science (Poultry)

Course: PSC-514

(Poultry Medicine & Preventive Measures)

Time: Three Hours **Full Marks: 50**

Questions are of value as indicated in the margin.

Answer **any five** questions

1. a) Describe vaccination schedule of poultry. 5
   b) Define disinfectant with examples. Classify disinfectant with mechanism of action. 5

2. a) Define probiotic with example. State the mechanism of action of probiotics. State the criteria for selection of probiotics in the poultry industry. 5
   b) Describe the potential effect of veterinary drug residue used in poultry production. 5

3. Write short note on (answer any four): 2.5×4=10
   a) Anticoccidial drug
   b) Monensin
   c) Terminal disinfectant
   d) Tylosin
   e) Fluoroquinolone

4. State the treatment of following (any four): 2.5×4=10
   a) Infectious Coryza.
   b) Brooder pneumonia.
   c) Chronic Respiratory Disease.
   d) Fowl cholera.
   e) Fowl Paratyphoid.

5. Differentiate between the following (answer any four): 2.5×4=10
   a) Bactericidal and Bacteriostatic.
   b) Taeniafuge and taeniacide
   c) Preventive therapy and therapeutic treatment.
   d) Prebiotic and probiotic.
   e) Immunostimulant and immunosuppressive.

P.T.O.

6. State the mechanism of action and dose of following drugs in poultry. (**Answer any four**) 2.5×4=10

   a) Albendazole
   b) Piperazine
   c) Enrofloxacin
   d) Gentamicin
   e) Cephalexin

7. State side effects of following drugs (**Answer any four**): 2.5×4=10

   a) Tetracyclines
   b) Chloramphenicol
   c) Neomycin
   d) Carbon tetrachloride
   e) Diamfenetide

8. Describe the treatment and preventive therapy of the following fungal diseases.
   (Answer any four) 2.5×4=10

   a) Aspergillosis
   b) Mucormycosis
   c) Candidiasis
   d) Favus
   e) Histoplasmosis

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M.SC. Examination, 2018
Semester-II
Animal Science (Poultry)
Course: PSC-514
(Poultry Medicine & Preventive Measures)

Time: Three Hours **Full Marks: 50**

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

1. Define probiotic with example. State the mechanism of action of probiotic. Describe different probiotics used in poultry industry. 2 + 3 + 5 = 10
2. Describe vaccination schedule of Poultry. State the procedure following a disease outbreak. 5+5=10
3. Which are indicators of birds infected with following diseases (any four): 2.5×4=10
   i) Ranikhet
   ii) Gumboro
   iii) Fowl cholera
   iv) Coccidiosis
   v) Pullorum disease
4. State the treatment of the following (any four): 2.5×4=10
   i) Colibacillosis
   ii) CRD
   iii) Infectious Coryza
   iv) Fowl Typhoid
   v) Ulcerative enteritis (Quail Disease)
5. Write short notes on (any four): 2.5×4=10
   i) Anticoccidial drug
   ii) Iodophors
   iii) Cephalexin
   iv) Bacitracin
   v) Tylosin
6. State the mechanism of action and dose of the following drugs in poultry (any four): 2.5×4=10
   i) Levamisole
   ii) Enrofloxacin
   iii) Tetracycline
   iv) Tylosin
   v) Gentamycin
7. Differentiate between (any four): 2.5×4=10
   i) Bactericidal and Bacteriostat
   ii) Agonist and Antagonist
   iii) Cephalexin and Cefotaxime
   iv) Taeniaphage and Taeniacide
   v) Active transport and Passive Diffusion
8. i) Define disinfectant. Classify disinfectant with mechanism of action. 5+5=10
   ii) State the importance of options of Poultry drinking water sanitation.

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M.SC. Examination, 2019
Semester-II
Animal Science (Poultry)
Course: PSC-514
(Poultry Medicine & Preventive Measures)

Time: Three Hours **Full Marks: 50**

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

1. Define Bio security. State different components of bio security measures in poultry farm. 3+7=10
2. Describe vaccination schedule for layer and broiler poultry. 5+5=10

3. What are the common disinfectants used in poultry farm? State their mechanism of action. 5+5=10
4. Describe importance of use of poultry drinking water sanitiser and different options. 5+5=10
5. Describe aetiology, mode of transmission, symptom, post mortem lesion and preventive measures of Duck plague and Ranikhet disease. 5+5=10
6. Write short note on (any four): 2.5×4=10
   i) Carcass disposal ii) Fumigation iii) Chlorine dioxide
   iv) Live attenuated vaccine deficiency v) Biofilm vi) Physical method of disinfection
   vii) Thiamin viii) Selenium deficiency

7. Write down the mechanism of action and side effect of the following: 2.5×4=10
   i) Tetracycline ii) Gentamycin iii) Chloramphenicol iv) Neomycin
   v) Enrofloxacin vi) Erythromycin vii) Cephalexin viii) Amoxycillin

8. Describe the characteristic post mortem lesion preventive and therapeutic treatment of the following diseases (**any four**): 2.5×4=10
   i) Duck cholera ii) Colibacillosis iii) Pulorum disease
   iv) Chronic Respiratory Disease(CRD) v) Coccidiosis vi) Infectious coryza
   vii) Fowl cholera viii) Aspergillosis

M.SC. Examination, 2022
Semester-II
Animal Science (Poultry)
Course: PSC-514
(Poultry Medicine & Preventive Measures)

Time: Three Hours **Full Marks: 50**

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

1. Describe vaccination schedule in layer and broiler poultry. 6+4=10
2. What is bird flu? What is the mode of transmission of this disease in poultry? Write the characteristic symptoms, pathological lesion and preventive measures of the disease. 2+1+7=10
3. What is ranikhet disease? What is the mode of transmission of this disease in poultry? Write the aetiology, characteristic symptom, pathological lesion and preventive measures of the disease. 2+1+7=10
4. What is Bio-security? State the procedure following a disease outbreak. 3+7=10
5. Describe the characteristic post mortem lesion, preventive and therapeutic measures of the following diseases (**any four**) 2.5×4=10
   i) Coccidiosis
   ii) Colibacillosis
   iii)Duck cholera
   iv) Pulorum disease
   v) Infectious coryza
6. Write short note on (**any four**) 2.5×4=10
   i) Star grazing syndrome
   ii) Cannibalism
   iii) Exudative diathesis
   iv) Egg drop syndrome
   v) Visceral gout
   vi) Brooder's pneumonia
7. Explain why (**any four**) 2.5×4=10
   i) Clopidol act as coccidiostat
   ii) Immunosuppression occurs in aflatoxicosis in poultry.
   iii) Anticoccidials are almost universally used in broiler.
   iv) Use of anticoccidials in layer and breeder birds is not as universal as that of broilers.
   v) Tiamulin and ionophores should not be concurrently included as feed additive in poultry.
   vi) Tetracycline should not be used with dairy products.

8. Write mechanism of action and adverse reaction of (**any four**) 2.5×4=10
   i) Tetracycline ii) Gentamycin iii) Enrofloxacin iv) Neomycin v) Cephalexin
   vi) Amoxycillin

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M.SC. Examination, 2023
Semester-II
Animal Science (Poultry)
Course: PSC-514
(Poultry Medicine & Preventive Measures)

Time: Three Hours **Full Marks: 50**

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

1. State the treatment of following (**any four**) 2.5×4=10
   a) Infectious Coryza
   b) Brooder Pneumonia
   c) Chronic Respiratory Disease
   d) Fowl Cholera
   e) Fowl Paratyphoid
2. Differentiate between (**any four**) 2.5×4=10
   a) Bactericidal and Bacteriostat
   b) Agonist and Antagonist
   c) Cephalexin and Cefotaxime
   d) Taeniaphage and Taeniacide
   e) Active transport and Passive diffusion
3. What are the common disinfectants used in poultry farm? State their mechanism of action. 5+5=10
4. Describe aetiology, mode of transmission, symptom, post mortem lesion and preventive measures of Duck plague and Ranikhet disease. 5+5=10
5. What is Bio-security? State the procedure following a disease outbreak. 3+7=10
6. Write mechanism of action and adverse reaction of (**any four**) 2.5×4=10
   a) Tetracycline
   b) Gentamycin
   c) Enrofloxacin
   d) Neomycin
   e) Cephalexin
   f) Amoxycillin
7. Describe vaccination schedule of poultry. Describe the potential effect of veterinary drug residue used in poultry production. 5+5=10
8. Write short note on (**any four**) 2.5×4=10
   a) Carcass disposal
   b) Fumigation
   c) Live attenuated vaccine
   d) Anticoccidial drug
   e) Cannibalism
   f) Egg drop syndrome

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