



**VISVA-BHARATI
PALLI SIKSHA BHAVANA
(INSTITUTE OF AGRICULTURE)
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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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 10=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) IB 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) *Mycoplasma 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 aflatoxicosis

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) Cannibalism
- 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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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	<i>Pasteurella multocida</i>
5	Essential fatty acid	<i>Salmonella pullorum</i>
6	Mukteswar strain (R ₂ B vaccine)	Linoleic acid
7	Avian leukosis complex	<i>Aspergillus flavus</i>
8	Patchy haemorrhage at the junction of gizzard and proventriculus	Herpes virus (DNA virus)
9	Fowl cholera	Ranikhet disease
10	Duck viral enteritis	<i>Eimeria tenella</i>

2. Write short notes (any five) :

2x5=10

- Star grazing
- Aflatoxicosis
- Ulcerative enteritis
- Avian Influenza variants
- Wing rot
- Omphalitis
- 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 infectious bronchitis. Enumerate different mycotoxins 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 coccidiosis. 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.



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**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