Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination 2015
Course Title: Poultry Nutrition (Theory)
Course Code: PNT-302 (T)
Full Marks: 55; Time: 3.0 Hours

(Figures in the right margin indicate full marks. Answer any **three** questions from each section of which **Question No. 1 & 5** are compulsory. Use separate answer script for each section)

Section-A

1. a) Define feed milling technology. Briefly discuss the fundamental steps for manufacture of pellet feed in a commercial feed mill. 5.0
   b) Rose Winslet has a 1000-Hybro commercial broiler farm. During live bird sale at the age of 28 days. Mrs. Winslet notices that, the average live weight and FCR of her flock were 1.5 kg and 1.8. respectively. Can you estimate, how much vitamin-mineral premix and feedzyme did she use for feed formulation during the entire period? 5.0

2. a) What is feed conversion ratio (FCR)? Briefly discuss the factors that regulate FCR in a commercial layer flock. 4.0
   b) What is available phosphorus (P_{avail})? How should you measure it in a plant animal protein based diet? Briefly discuss the mode of action of phytase in a soyben based commercial pullet diet. 5.0

3. a) Define mycotoxins. List the mycotoxins available in tropical countries and discuss their lethal impacts on health and productivity in poultry. 4.0
   b) Briefly discuss the critical dietary factors that regulate quality of meat and egg from commercial poultry. 5.0

4. a) Briefly discuss the possible ways for controlling body weight of breeder pullet. 4.0
   b) How should you attempt to prepare a low cost balanced ration for commercial broiler? Compare and contrast merits and demerits of pellet over mash for commercial layer. 5.0

Section-B

5. a) Define essential. semi-essential. critical and limiting amino acids with specific examples. Lysine or methionine which one is the first limiting amino acid in a corn-soy based traditional poultry ration and why? 4.0
   b) Define phase feeding. Briefly discuss the nutrient requirements of ISA Brown laying hen in different phases of her effective reproductive life. 5.0

6. a) Define prebiotic and probiotic. What is the optimum time to incorporate them in poultry diet? Briefly discuss their mode of action in growing pullet. 4.0
   b) Briefly discuss the influence of dietary fibre on health and productivity of commercial broiler. Suggest a feeding schedule for a Hisex Brown layer from 0-72 weeks. 5.0

7. a) Compare the age specific macro and micro nutrient requirements of a Starbro commercial broiler from 0-28 days. 4.0
   b) How are nutrients destroyed in a readymade mixed feed? Briefly discuss the specific guidelines for preservation of cereal grains. milling by-products, animal protein supplements and vegetable oils used for poultry diet. 5.0

8. Write short notes on **any three** of the following: (3x3=9.0)
   a) Skip-a-day feeding.
   b) Cage layer fatigue.
   c) Tranquilizer for feeding layer.
   d) Emulsifier for broiler finisher.
   e) Acidifier for gut health.

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination, 2015
Course Title: Pathology of Infectious Diseases (Theory)
Course Code: PID-302 (T)
Full Marks: 70; Time: 3.0 Hours

(Figures in the right margin indicate full marks. Answer any **Five** questions from each section. Use separate answer script for each section.)

Section-A

1. a) Name five viral diseases which have zoonotic importance. 2.0
   b) Discuss pathogenesis and pathology of Peste des Petits Ruminants (PPR) in goat. 5.0

2. a) What do you mean by inclusion body and perivascular cuffing? 2.0
   b) Briefly describe the pathogenesis and pathology of canine distemper in dog. 5.0

3. a) Enlist five infectious diseases of animals which can be transmitted by semen or by sexual contact. 2.0
   b) Briefly describe pathogenesis and pathology of brucellosis in a cow. 5.0

4. a) Briefly state the pathogenesis and pathology of Black Quarter in a heifer. 4.0
   b) Write down the post mortem findings of TB in a cow. 3.0

5. a) Write down the transmission, pathogenesis and pathology of foot and mouth disease. 5.0
   b) How will you differentiate FMD from other vesicle forming diseases. 2.0

6. a) Briefly describe the pathogenesis and pathology of acute and chronic fascioliasis in buffalo. 5.0
   b) Write down the gross lesions of nodule worm disease in cattle. 2.0

Section-B

7. a) How nervous sign develops in case of Type-D enterotoxaemia in fattening lamb? 2.0
   b) Write down the toxins with their pathologic effects produced by *Clostridium perfringens*. 2.0
   c) Write a short note on contagious bovine pleuropneumonia. 3.0

8. a) Write down the etiology, pathogenesis and pathology of swine erysipelas. 4.0
   b) Write down the etiology and pathology of salmonellosis in swine. 3.0

9. a) Write down the pathological significance of hydatidosis in affected animals. 2.0
   b) Briefly describe the pathogenesis of babesiosis in cattle. 3.0
   c) How will you differentiate the pathogenesis of babesiosis from that of anaplasmosis? 2.0

10. a) How will you differentiate the lesions of dermatophillosis from that of dermatophytosis? 3.0
    b) Write a short note on contagious ovine ecthyma. 4.0

11. a) Write down the pathogenesis and pathology of the bacterial chronic wasting disease showing shooting diarrhoea in cattle. 4.0
    b) Write down the pathogenesis of tetanus in goat. 3.0

12. a) Name four diseases where nervous signs are produced. 1.0
    b) Differentiate between the following pairs (any two): 6.0
       (i) Actinobacillosis and Actinomycosis.
       (ii) Strangles and Ganders.
       (iii) Rabies and Pseudorabies.

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination' 2015
Course Title: Toxicology (Theory)
Course Code: TOX-302 (T)
Full Marks: 70; Time: 3.0 Hours

(Figures in the right margin indicate full marks. Answer any **three** questions from each section of which question No.**1 and 5** are compulsory. Use separate answer script for each section.)

Section-A

1. a) Define Phytobiotics and Phytotoxicology with examples. 2.5
   b) Why Phytotoxins are important in veterinary practice? 2.5
   c) Define poison and toxin. Enlist venomous snakes available in Bangladesh. Differentiate between venomous snakes and non-venomous snakes. 6

2. a) Write down the clinical signs and treatment of acute urea poisoning in cattle. 4
   b) Write down the clinical sings, pathogenesis and treatment of strychnine poisoning in goat. 5
   c) Write down the source and clinical signs of nitrate/nitrite poisoning in cattle. 3

3. a) Classify insecticide with examples. 2
   b) Write down the clinical signs, mode of action, diagnosis and treatment of organphosphorus poisoning in a cow. 5
   c) What are the factors related to DDT poisoning? Write down the diagnosis and treatment of DDT poisoning in goat. 5

4. a) What do you mean by gastric lavage? How does it work against poison in the body? 4
   b) Describe in brief the procedure of preparation, preservation and sending of a toxicological sample to a diagnostic laboratory. 4
   c) Do you think arsenic is also threat to livestock as like as human being in Bangladesh? 4

Section-B

5. a) Write down the factors associated with aflatoxicosis. How will you manage and treat aflatoxicosis in poultry? 5
   b) Make a list of drug toxicity with their mode of action, clinical signs, prevention and treatment. 6

6. a) What is teart disease and alkali disease? Write down clinical symptoms and treatment of alkali disease in livestock. 6
   b) Make a list of oxidation reaction under non-synthetic phase of biotransformation of toxin with example in each case. 6

7. a) A commercial layer farm owner came to you and let you know that 200 birds had died suddenly. Upon postmortem examination you find hemorrhage in proventiculus and gizard, enlarge liver and kidney. What is your diagnosis and treatment? 4
   b) An 8 year old cow with watery diarrhoea came to you. What is your diagnosis and what types of fluid therapy you need to be prescribed? 4
   c) Mention the symptoms of gaseous poisoning causing respiratory insufficiency in domestic animal. 4

8. Write short note **any four** of the following: 3×4=12
   (a) Biological half life;
   (b) Lead poisoning in cow;
   (c) Epidemiological evidence;
   (d) Radiation hazard;
   (e) Photosensitization

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination, 2015
Course Title: Protozoology (Theory)
Course Code: PRT-302 (T)
Full Marks: 70; Time: 3.0 Hours

(Figures in the right margin indicate full marks. Answer any **Five** questions from each section. Use separate answer script for each section.)

Section-A

1. a) What is Protozoology? Mention the scopes of Protozoology. 3.0
   b) Classify protozoa according to their locomotion, nutrition and reproduction with example in each case. 4.0

2. a) List the important blood protozoa found in animals and birds in Bangladesh. 3.0
   b) Write down the pathological effects of babesiosis and theileriosis in cattle. 4.0

3. a) Sketch the life cycle of most pathogenic coccidia infection in chicken. 4.0
   b) How will you diagnose caecal coccidiosis in laboratory? 2.0
   c) What do you mean by shuttle program? 1.0

4. a) Write down the life cycle of *Toxoplasma gondi*. 4.0
   b) Mention the pathologic significance of toxoplasmosis in cats and women. 3.0

5. a) List the protozoa responsible for diarrhoea in men and animals in Bangladesh. 2.0
   b) Write down the morphological features of *Balantidium coli*. 3.0
   c) How will you diagnose *B. coli* infection? 2.0

6. Write short note on the following diseases (any two): 7.0
   (a) Dourine in horse, (b) Winter coccidiosis, and (c) Anaplasmosis.

Section-B

7. a) Enlist stercovarian and salivarian group of Trypanosomes. Briefly describe their biology. 4.0
   b) Sketch the life cycle of *Trypanosoma cruzi*. 3.0

8. a) Draw and label a typical protozoa which may cause abortion in cows. 3.0
   b) Write down the pathologic significance and control measure of trichomoniasis in cattle. 4.0

9. a) Briefly describe the reproduction process of a typical protozoan parasite. 4.0
   b) Describe various developmental stages of Trypanosomes. 3.0

10. a) Briefly describe the morphology and life cycle of *Haemoproteus columbae* in pigeon. 5.0
    b) Mention the pathogenic significance of histomoniasis in turkey. 2.0

11. a) Enlist the various type of Leishmaniasis with their causal agents. Show the life cycle of *Leishmania donovani* in sketch form. 4.0
    b) What do you mean by PKDL? How will you diagnose Leishmaniasis? 3.0

12. a) Briefly describe the life cycle of *Theilaria parva* in sketch form. 3.0
    b) Write down the causal agents and vectors of the following diseases: 4.0
       (i) Sura in mare
       (ii) Dumdum fever in bitch
       (iii) Red water fever in cow
       (iv) Black head disease in turkey

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination, 2015
Course Title: General Medicine (Theory)
Course Code: GMD-302 (T)
Full Marks: 70; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any **Three** questions from each section of which question No.**1 & 5** are compulsory. Use separate answer script for each section.)

Section-A

1. a) Differentiate General Medicine from Preventive Medicine. Classify Veterinary Medicine with examples. 3.0
   b) Define treatment. Write down the general principles of treatment in Veterinary Medicine. 4.0
   c) How will you differentiate presumptive diagnosis from laboratory diagnosis? 4.0

2. a) Write down the etiology and pathogenesis of septic and aseptic fever. 4.0
   b) 8 years old 450kg Horse with projectile, watery diarrhoea, tem 103^0F, heart beat 68 bpm, res. rate 15 bpm and mucous membrane dry. What is your differential diagnosis and treatment protocol? 8.0

3. a) Define ruminal acidosis. How will you differentiate acidosis from tympany in case of pregnant cow? 4.0
   b) A Black Bengal Goat is suffering from complete anorexia, ruminal atony and depression. It has consumed large amount of rice. Write down your diagnosis and line of treatment. 4.0
   c) What are the complications of FMD in Bull? 4.0

4. a) Define hydration. What are the common causes of dehydration? How will you measure the levels of dehydration in case of dehydrated cow? 4.0
   b) Differentiate hemoptysis from hematemesis. 4.0
   c) Write down the principles of diagnosis of respiratory insufficiencies. 4.0

Section-B

5. a) What are the abnormal skin conditions you noticed during your GMD practical classes at SAQTVH? Write down the principles of treatment of skin diseases. 4.0
   b) Differentiate fever and heat stroke. Rectal temp of a calf is 107^0F. How will you diagnose whether the calf is suffering from fever or heat stock? 4.0
   c) Differentiate hyperkeratosis from parakeratosis. 3.0

6. a) Point out the principles of manifestation of urinary system dysfunction. 4.0
   b) Differentiate hydrothorax from pleuritis. 4.0
   c) Define dermatosis. Write down the diagnostic criteria for growth hormone-Responsive dermatitis. 4.0

7. a) Differentiate pneumonia, aspiration pneumonia and verminous pneumonia. What type of pneumonia that may develop due to forceful drenching? Write down the clinical findings and treatment of that pneumonia. 5.0
   b) What are the bovine respiratory tract diseases? What immediate and subsequent treatment you will suggest for epistaxis. 4.0
   c) How will you treat a bull for stomatitis due to FMD infection? 3.0

8. a) Enumerate the nature of calculi deposits in case of urolithiasis in different species of animals. What are the common clinical findings of urolithiasis? 4.0
   b) What are the methods to collect CSF and rumen fluid in case of cattle? 4.0
   c) Describe the "5-steps method" of disease diagnosis in General Medicine. 4.0

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination, 2015
Course Title: Poultry Production (Duck, Quail & Pigeon) (Theory)
Course Code: PPR-302 (T)
Full Marks: 70; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any **Three** questions from each section of which question No.**1 & 5** are compulsory. Use separate answer script for each section.)

Section-A

1. a) State the concept of the following terminologies-Mule duck, Gosling, Squab, Incubation, Pen, Knob, Gander and Heterosis. 4.0
   b) Classify duck breeds on the basis of utility. 3.0
   c) State the body and production characteristics of Pekin and Zending. 4.0

2. a) Enlist quail breeds. Mention the worldwide distribution of quail. 3.0
   b) State the sexing procedure of Japanese quail. 3.0
   c) Briefly describe the brooding and rearing management of quail. 6.0

3. a) State the zoological classification of Guinea fowl and turkey. 4.0
   b) Which species of poultry are seasonal layer? State the subspecies and varieties of guinea fowl. 3.0
   c) State the breeding strategies and prospects of turkey farming under commercial system of rearing. 5.0

4. Write short notes **any four**: 4×3=12
   a) Prospects of duck rearing in Bangladesh;
   b) Vaccination schedule of duck;
   c) Crop milk;
   d) Integrated duck-cum-fish farming;
   e) Worst mother
   f) Pinioning, and
   g) Diseases of pigeon.

Section-B

5. a) State the zoological classification of pigeon and classify pigeon breeds based on utility. 4.0
   b) Why is double nest in the dovecote necessary for the breeder pigeon? Is pigeon hatchery possible in intensive pigeon production? Justify your opinion. 3.0
   c) Describe feeding and watering management of pigeon in commercial pigeon farming. 4.0

6. a) Narrate brooding requirements of geese. 5.0
   b) Mention geese breeds. Discuss about feeding management of geese. 5.0
   c) Why geese can digest more fiber than other poultry species? 2.0

7. a) A farmer has came to you seeking solution of the problem that turkey eggs are not being hatched. What could be the possible solution for this? 3.0
   b) Briefly state about feeding, fattening and marketing of geese. 5.0
   c) State the scientific name, incubation period, age of sexual maturity, yearly egg production, and mature weight of mallard duck, Japanese quail, indigenous pigeon, guinea fowl and turkey. 4.0

8. Write short note **any three**: 3×4=12
   a) Standard breeds and varieties of turkey;
   b) Differention between goose and swan;
   c) Peculiarities of quail and turkey;
   d) Selection and storage of hatching eggs;
   e) Herding and Landing system, and
   f) Biosecurity in poultry farming.

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination' 2015
Course Title: Immunology and Serology (Theory)
Course Code: IMS-302 (T)
Full Marks: 55; Time: 3.0 Hours

(Figures in the right margin indicate full marks. Answer any **three** questions from each section of which question No.**1 is** compulsory. Use separate answer script for each section.)

Section-A

1. a) Summarize of immune response in vivo with asketch. 3
   b) Discuss the mechanism of phagocytosis process. 4
   c) List the PAMPs and corresponding PRRs molecule found in microbes and phagocytic cell. respectively. 3

2. a) Define vaccine. Describe the major criteria of an ideal vaccine. 2
   b) Write down the advantages of live and killed vaccine. 2
   c) What are the adverse reactions of vaccination? Write down the important points of an animal to be considered before vaccination. 5

3. a) Explain normal immune response to abnormal antigen. 3
   b) Write down the properties of an ideal antigen. 3
   c) What are adjuvant, super-antigen and hapten? 3

4. a) What is the basis of classification of hypersensitivity? 2
   b) Synthesize the mechanism of type III hypersensitivity. 3
   c) What is autoimmune disease? Explain rheumatoid arthritis. 4

Section-B

5. a) Differentiate MHC class I from MHC class II molecule with a neat diagram. 3
   b) What are the antigen presenting cells? Why dendrite cell is considered is the most efficient antigen presenting cell? 2
   c) A calf is given FMD vaccine. Explain how will its immune system process the vaccine and present to immune system. 4

6. a) State the uses of monoclonal antibody. 2
   b) Interpret the trick in the production of monoclonal antibody. 4
   c) Draw and label a typical Ig molecule with description. 3

7. a) Mention the biological properties of complement. 3
   b) Enlist any two methods of complement activation. 6

8. a) Differentiate innate immunity from adaptive immunity. 3
   b) Illustrate the biological properties of cytokine. 3
   c) Mention the roles played by an important cytokine in case of innate immunity. 3

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination' 2015
Course Title: Pharmacology & Therapeutics (Theory)
Course Code: PHT-302 (T)
Full Marks: 55; Time: 3.0 Hours

(Figures in the right margin indicate full marks. Answer any **three** questions from each section of which question No.**1** is compulsory. Use separate answer script for each section.)

Section-A

.	a)	Differentiate therapy from chemotherapy.	2
	b)	What is antibiotic? Classify antibiotic with examples.	4
	c)	Define prebiotic and probiotic. What do you mean by drug sensitivity and drug resistance?	4
2.	a)	What is penicillin? Classify penicillin with examples.	2
	b)	List the anthelmintics against flukes and tapeworms.	3
	c)	Enumerate the mode of action, clinical applications and doses of erythromycin in poultry and dog.	4
.	a)	Tabulate different generation of cephalosporins with examples.	2
	b)	Why are sulfonamides used in combination with trimethoprim?	3
	c)	Describe the mode of action, clinical uses and adverse effects of fluoroquinolones in veterinary practices.	4
.	a)	Classify antifungal drugs with examples.	2
	b)	Write down the pharmacology and mechanism of action of Amphotericin B.	3
	c)	Describe the pharmacology of common antiprotozoal and anticoccidial drugs in poultry with examples.	4

Section-B

.	a)	Define and classify anthelmintic with examples.	2
	b)	How does levamisole modulate host immune system?	3
	c)	Write down the doses and mode of action of piperazine citrate and nitroxinil in livestock.	4
6.	a)	Differentiate between quinolones and fluoroquinolones.	2
	b)	Write down the dose, mode of action and clinical application of ciprofloxacin in poultry.	3
	c)	Write down the mode of action, indications and contraindications of colistin sulphate in poultry.	4
7.	a)	Differentiate between antiseptic and disinfectant.	2
	b)	Write down the mode of action and doses of invermectin in different livestock.	3
	c)	Write down the dose, mode of action, indications and contraindications of oxytocin and progesterone in cow.	4
8.		Write short notes on **any three** of the following:	3×3=9
		(a) Steroid drugs; (b) Interferon; (c) Tetracycline; (d) Chemotherapeutic triangle	