

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Exam.-2007
Subject: Parasitology (Protozoology) (Theory)
Course Code: PRT-302
Full Marks-70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any **FIVE** questions from each section where **question no.-1 and 7 are compulsory**. Use separate answer script for each section).

Section-A

1. a. Differentiate between External & Internal Auto-infection. 2
b. Show the way of transmission of the causative agent of Dourine from animal to animal. 1.5
c. How can you control Trypanosomiasis? 3.5
2. a. What do you mean by Kala-az? 1
b. How can you diagnose kala-az in dog? 2
c. List the pathogenic stages of Leishmaniasis and how can these affect an animal body? 4
3. a. Name the protozoan which is crucially responsible to cause abortion in a cattle herd. 1
b. How would you diagnose and control the disease caused by the protozoan? 4
c. Give an account on the economic loss in which a farmer has to face due to this disease. 2
4. a. Through how many ways a protozoan can take food and briefly describe the ways. 3
b. List the processes of Locomotion and Reproduction of a typical protozoan. 1
c. Briefly describe the different type of reproduction processes occur in a protozoan. 3
5. a. Name five coccidian protozoa causing abortion in animal as well as human. 1.5
b. Differentiate morphologically between Isospora and Eimeria. 1.5
c. Briefly describe about Toxoplasmosis on the context of Epidemiology. 4
6. Write short notes on any two: 3.5 x 2 = 7
(i) Important zoonotic protozoa in Bangladesh (ii) Theileriosis in Camel (iii) Coccidiosis in chicken

Section-B

7. a. List the important Blood Protozoa of Cattle. 1
b. Briefly describe the pathogenic significance of Babesiosis in cattle. 4
c. What measures would you take to control and eradicate the infection from a dairy farm? 2
8. a. Define Cryptozoite, Piroplasm and Enzootic instability. 3
b. Sketch the lifecycle of *Plasmodium gallinaceum* 4
9. a. 'A Trypanosome has the immune evasion properties'-how can you explain it? 3
b. Describe the life cycle and pathogenesis of *Trypanosoma evansi*. 4
10. a. Show the way of transmission of *Trichomonas columbae* in bird. 2
b. How can you control the *Tritrichomonas foetus* infection in a herd of cattle? 3
c. 'A bull is more responsible for spreading *Tritrichomonas foetus* infection in a cattle herd than cow'-
explain it. 2
11. a. Define Schizont, Merozoite and Ookinete 1.5
b. List the different types of Ehrlichiosis with causal agents and vectors in animals. 2
c. Name the Rickettsial organism and write down its life-cycle where both transtadial and trans-ovarian
transmission are absent. 3.5
12. Write short notes on any two: 3.5 x 2 = 7
(a) Cyst forming protozoa (b) Salivarian protozoa (c) Balantidiosis.

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Exam.-2007
Subject: Toxicology (Theory)
Course Code: TOX-302
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 and 5 are compulsory. Use separate answer script for each section).

Section-A

1. a. Differentiate poison from toxin. Classify the toxicant based on toxicity potential and target organ. 4
b. Briefly describe the measures of toxicity. 4
c. Mention the detoxification reactions of the body with name and location of enzyme involved. 3
2. a. Cited 5 (five) cyanogenic glycosides with sources. How you will diagnose and treat cyanide poisoning in cattle? 4
b. What is mydriasis? Write down the clinical sign, diagnosis and treatment of a poison that causes mydriasis. 4
c. Differentiate between the following: 4
(i) Phytotoxin and zootoxin (ii) LD₅₀ and ED₅₀
(iii) Potentiation and antagonism (iv) Toxicoinfection and intoxication
3. a. What do you mean by mycotoxin and mycotoxicosis? Classify mycotoxins and mentioned a common estrogenic mycotoxin including its source, chemical characteristics, mechanism of toxicologic damage and clinical effects in domestic mammals. 5
b. Write down the comparison between cyanide and nitrate poisoning in terms of action and treatment. 4
c. How will you manage and deal with ipomea poisoning in goat? 3
4. Write short notes on (any four): 4 x 3 = 12
(a) Radiation hazard (b) Salt poisoning in poultry (c) Oxalate poisoning
(d) Teart disease (c) Bacterial toxins.

Section-B

5. a. What are the basic characteristics of metals and minerals? Write down the poisonous effects of copper, iron, and zinc and mention the medicinal effect of above metals in livestock practice. 4
b. Write down the classification of insecticide with example. 3
c. Write down the mode of toxicity of any three pesticides with treatment. 4
6. Write down the mode of action of followings (any four): 3 x 4 = 12
(a) Aflatoxin and HASCAS (b) Methylene blue and Hypo (c) Atropine sulphate and DDT
(d) Activated charcoal and Datura (e) Livamisol and salt
7. a. Make a list of plants causing estrogenic and teratogenic poisoning in livestock. 4
b. Write down the toxic constituent of datura, rati and karabi along with their antidote. 4
c. How you will reduce the absorption and increase the excretion of toxin in ruminant? 4
8. a. What do you mean by "Alkali disease"? Mention the treatment of selenium toxicity. 4
b. Write down the risk factors for urea poisoning? How you will diagnose and treat the toxicity in case of cattle? 4
c. What do you mean by 'Limber neck disease'? Differentiate botulism and tetanus toxin in the light of mode of toxicity. 4

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Exam.-2007
Subject: Poultry Production (Duck, Quail & Pigeon) (Theory)
Course Code: PPR-302
Full Marks-70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any **FOUR** questions from each section of which **question no 1 and 6 compulsory**. Use separate answer script for each section).

Section-A

1. Mention the zoological classification of muscovy duck and state the origin and domestication of domestic ducks. 5
2.
 - a. Is muscovy a duck? Give reasons behind this statement. 5
 - b. Mention the principle of rice husk incubation. 3
 - c. What is meant by integrated farming. 2
3.
 - a. Describe duck breeding companies with their products available in the world. 5
 - b. Discuss the productive traits of two breeds of duck suitable for rearing in the saline water. 5
4.
 - a. Write in brief the fish sub-system of duck cum fish integrated farming. 7
 - b. What is Herding system? Write a note on it. 3
5.
 - a. Discuss the breeding technique of Turkey. 4
 - b. Write short note on: 3 x 2= 6
 - (i) Breeds & varieties of Guinea fowl
 - (ii) Squabmeat
 - (iii) Sexing of pigeon & squab

Section-B

6.
 - a. Give the reproductive behavior of quail. 5
7.
 - a. Name the different breeds of Geese. Write the identifying characteristics of Chinese geese. 7
 - b. Geese take a lot of grass. How they utilize in the body. 3
8.
 - a. Mention the special characteristics of rearing pigeon. 3
 - b. State the feeding & rearing management of squab & pigeon. 7
9.
 - a. What are the consequences of domestication of ducks. 4
 - b. Describe prospect of duck production in Bangladesh. 6
10. Write short notes on: 2.5 x 4 = 10
 - (a) Local ducks
 - (b) Breed & sub-species of duck
 - (c) Green geese
 - (d) Campbell.

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Exam.-2007
Subject: Pathology of Infectious Diseases (Theory)
Course Code: PID-302
Full Marks-70, Time: 3 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

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|----|---|---|
| 1. | a. Discuss the pathology of Splenomegali in case of Anthrax. | 4 |
| | b. Write short notes about Cutaneous Anthrax & Wool-sorters disease in human. | 3 |
| 2. | a. What is Miliary Tuberculosis? | 1 |
| | b. A typical tubercle does not form in case of Meningeal Tuberculosis-why? | 2 |
| | c. Microscopically differentiate a Tuberculous nodule from Aspergillus nodule. | 4 |
| 3. | a. Write down the pathognomonic lesions of the following diseases:
i. Listeriosis ii. Rabies iii. Rinderpest | 3 |
| | b. Discuss the gross & microscopic features of Paratuberculosis in large intestine. | 4 |
| 4. | a. Name three Fungal Granulomatous Disease of Cattle and describe the pathology of the one of them which affect nasal mucosa. | 4 |
| | b. Write down the pathology of Aflatoxicosis in Pig. | 3 |
| 5. | a. Enumerate Viral Diseases of Domestic & Pet animals where leukopenia is a common feature. | 2 |
| | b. Explain the term Spongiform Encephalopathy. | 2 |
| | c. Write short note about "Gitter cell". | 3 |
| 6. | a. Write down the microscopic lesions of Thrush. | 3 |
| | b. Write down the pathogenesis of ring-like lesion in Dermatomycosis infection in a cow. | 4 |

Section-B

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|-----|---|-------------|
| 7. | a. List the causal agents of Mastitis. | 2 |
| | b. Describe the pathogenesis and pathology of Streptococcal Mastitis. | 5 |
| 8. | a. Write down the pathology of FMD in an adult cow. | 4 |
| | b. Write down the microscopic lesions of Parvoviral infection in a dog. | 3 |
| 9. | a. How haemoglobinuria develop in Babesiosis? | 4 |
| | b. What is Myiasis? List different types of Myiasis. | 3 |
| 10. | a. Compare the blood picture of cattle affected with Theileriosis and Babesiosis. | 4 |
| | b. Describe how Persistent Parasitaemia develops in case of Trypanosomiosis in cattle. | 3 |
| 11. | a. List the organs affected by Canine Distemper. | 2 |
| | b. Write down the pathogenesis of Rabies in Dog. | 5 |
| 12. | Write short notes on any two:
(a) Verminous Aneurism (b) Nasal polyp (c) Pseudorabies. | 3.5 x 2 = 7 |

(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. Define nutrient. Write down the classification of poultry feed according to source of nutrient with example. 5
b. Describe the differences among the layer, broiler and breeder ration with their nutritional requirement. 5
2. a. Define amino acid. List the essential amino acids for poultry. What do you mean by the limiting amino acids? 4
b. Do you think methionine is the first limiting amino acid for poultry? Why methionine is so important in the poultry ration? How can you explain the effects of limiting amino acids on the synthesis of protein? 5
3. a. Define phase feeding. Briefly discuss phase feeding system. 5
b. What are the effects of low and high protein diets on meat and egg production? 4
4. a. Classify vitamin with their natural sources. 3
b. Write down the physiological functions of fat soluble vitamin and deficiency symptoms of vitamin-B complex in case of poultry. 6

Section-B

5. a. Give the differences between animal protein and vegetable protein. 3
b. Briefly discuss about the importance of fish meal, soybean meal, meat and bone meal, protein concentrate and blood meal. 6
6. a. Classify mineral with their sources. Write down the functions and deficiency symptom of Ca, P, Mg, K, Fe, Mn, Se and Zn in poultry. 7
b. Why Ca and P are so important in layer ration, explain. 2
7. a. What is feed mill? Mention the different parts of a pellet feed mill. 4
b. What precautions would you take in storing poultry feed to protect them from deterioration? 5
8. Write short notes (any three): 3 x 3 = 9
(a) Feed conversion ratio (b) Calorie protein ratio (c) Pellet (d) Unidentified growth factor

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Exam.-2007
Subject: Pharmacology and Therapeutics (Theory)
Course Code: PTH-302
Full Marks-55, Time: 3 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

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|----|--|---|
| 1. | a. Differentiate antibiotics from chemotherapeutics. | 2 |
| | b. Briefly describe how bacteria develop resistance to antibiotics. | 4 |
| | c. Define probiotics, prebiotics, synbiotics and xenobiotics. | 4 |
| 2. | a. Write down the principles of antibiotic therapy. | 3 |
| | b. Mention the adverse effects of long term administration of streptomycin therapy in dog. | 3 |
| | c. Write down the mode of action of natural penicillin. | 3 |
| 3. | a. Write down the action, uses and doses of enrofloxacin and tiamutin. | 3 |
| | b. Write in tabular form the antifungal drugs with their doses used in veterinary practice. | 3 |
| | c. Name 3 (three) ectoparasiticides with their mode of action and uses in veterinary medicine. | 3 |
| 4. | a. Classify cephalosporines? Write down the dose and mode of action of one cephalosporin belongs to second generation. | 4 |
| | b. Differentiate fluoroquinolones from quinolones? | 2 |
| | c. Write down the mode of action, dose and indication of ciprofloxacin in poultry. | 3 |

Section-B

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|----|--|-----------|
| 5. | a. Classify anthelmintics according to their chemical structure. | 3 |
| | b. Write down the action, uses and doses of ivermectin and levamisole in animal. | 3 |
| | c. List the anthelmintics which are contra-indicated during pregnancy. | 3 |
| 6. | a. What are the roles of prostaglandin and oxytocin in parturition? | 3 |
| | b. Write down the dose, mode of action, indication and contraindication of oxytocin in cow. | 4 |
| | c. Differentiate antiseptics from disinfectants. | 2 |
| 7. | a. Explain the synergistic effects of sulfonamides-trimethoprim combination in dog. | 3 |
| | b. Write down the action and uses of calcium and vitamin D ₃ in ruminants. | 3 |
| | c. Write down the indications and contraindications of corticosteroid and oestrogen in cattle. | 3 |
| 8. | Write short notes on (any three): | 3 x 3 = 9 |
| | (a) Interferon (b) Actinomycin-D (c) Polypeptide antibiotics (d) Antibiotics residues in food. | |

(Figures in the right margin indicate full marks. Answer any **THREE** questions from section A and **THREE** questions from section B taking **question no 5 as compulsory**. Use separate answer script for each section).

Section-A

1.
 - a. What cell types play important roles in the process of antigen capture? 2
 - b. How do CD8+ Cytolytic T-Lymphocytes (CTLs) kill cells infected with viruses? 4
 - c. Write down the principle of agglutination test. 3
2.
 - a. Make a list of primary and secondary lymphoid organs. 2
 - b. Enumerate the properties of IgM and IgG. 4
 - c. Briefly describe the steps of production of monoclonal antibodies. 3
3.
 - a. How a chemical substance can be used as an antigen? 3
 - b. Discuss incomplete antigen. 3
 - c. Discuss different types of allergic reactions. 3
4. Write short notes on (any three): 3 x 3 = 9
(a) Phagocytosis (b) Adjuvant (c) Major Histocompatibility Complex (MHC) (d) B-cell receptor (BCR)

Section-B

5.
 - a. Define cross reaction and antigenic determinants. 3
 - b. How does the specificity of innate immunity differ from that of adaptive immunity? 3
 - c. Enumerate the features of the MHC class I and MHC class II pathways of antigen processing. 4
6.
 - a. Write the name of major molecular techniques used for the diagnosis of animal diseases. 4
 - b. Define PCR and with labeled diagram describe the process. 5
7.
 - a. Define cytokines and write down its biological properties. 3
 - b. Write down the possible mechanisms involved in the development of autoimmune disease. 3
 - c. Sketch the pathway by which B-cells become immunologically tolerant. 3
8.
 - a. Define allograft and xenograft. 2
 - b. List the ways by which graft antigens can be recognized by T-cells in the host. 3
 - c. Write down the principle and protocol of complement fixation test (CFT). 4

(Figures in the right margin indicate full marks. Answer any **THREE** questions from each section where **question no.-1 and 5 are compulsory**. Use separate answer script for each section).

Section-A

1. a. Describe briefly the causes, symptoms, diagnosis and treatment of Acute indigestion in a cow. 7
b. Give the causes, symptoms, diagnosis and treatment of gastritis in a dog. 4
2. a. Define pneumonia and pneumonitis. 3
b. An adult cattle presented to VTH with a history of poor body condition, difficult breathing, extended head with abducted elbow. Clinical examination showed that 104⁰F of rectal temperature and pleuric friction sound on auscultation, what would be your diagnosis and line of treatment? 5
c. What is Asthma in dog? What is line of treatment of it? 4
3. Give the treatment of any four of the following conditions: 3 x 2 = 12
(a) Bronchopneumonia in a bullock (b) Urolithiasis in a buck (c) Metritis in a cow
(d) Carbohydrate engorgement in a bull (e) Anaemia in a dog.
4. How can you differentiate the followings: 4 x 3 = 12
(a) Hyperkeratosis and parakeratosis (b) Fever and hyperthermia (c) Myositis and myopathy.

Section-B

5. a. What are the common causes of renal failure in pet animals? 2
b. A 5 year old dog presented in TVH with the complain of anorexia, vomation, incomplete urination, sometimes straining to voided urine but failed. Clinical examination reveled that bladder is enlarged, temperature is 104⁰F. What is your diagnosis and line of treatment? 5
c. Write a brief note on traumatic reticulo pericarditis. 4
6. a. What are the common causes of sudden death of animals? 2
b. What are the common causes of enlargement of spleen in animals? 2
c. What do you mean by cardiac insufficiency? 3
d. What are the principles of diagnosis of skin diseases? 5
7. a. Describe briefly the skin diseases with the principles of treatment. 8
b. What is hypertonic saline? What is its use? 4
8. a. Write short notes on: 3 x 2 = 6
(i) Acute heart failure in horse (ii) Acute colic in horse
b. Provide the line of treatment: 3 x 2 = 6
(i) Conjunctivitis (ii) Simple indigestion (iii) Spasmodic colic