

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination – 2014
Course Title: Pathology of Infectious Diseases (Theory)
Course Code: PID-302 (T)
Full Marks: 70; Time: 3 Hours

Figures in the right margin indicate full marks. Answer any **FIVE** questions from each section.
 Use separate answer scripts for each section.

Section-A

1. a. What is granulomatous disease? Enlist four granulomatous diseases. 2
 b. Discuss the pathogenesis, pathology and diagnosis of a bacterial granulomatous disease of cattle which has zoonotic importance. 5

2. Answer the following questions very briefly: 7X1 =7
 a. Why shooting diarrhoea is common in case of paratuberculosis?
 b. Why deep punctured wound is needed to develop tetanus?
 c. Why rabid dog bite wound is needed to clean with ordinary soap?
 d. Why anthrax suspected animal is restricted for postmortem examination?
 e. Why retention of placenta is more common in case of brucellosis in cattle?
 f. Why young cattle are mostly affected by black leg?
 g. In which diseases vacuolation is observed in brain?

3. Describe the pathogenesis of the following diseases: (any two) 3.5X2 =7
 (a) Black leg, (b) Verminous pneumonia and (c) Oesophagostomiasis.

4. a. Name four infectious diseases with causal agents where hemolysis occur. 2
 b. Why hemoglobinuria is not found in case of anaplasmosis? 2
 c. Briefly describe the pathogenesis of babesiosis in cattle. 3

5. a. Describe the microscopic lesions of canine distemper. 3
 b. Write down the pathogenesis and pathology of infectious canine hepatitis. 4

6. a. Write down the gross and microscopic lesions of strangles in horse. 3
 b. Briefly describe the pathogenesis and pathology of Strongylosis in horse. 4

Section-B

7. a. What are the factors affecting the pathogenicity of an organism. 3
 b. What is inclusion body? 1
 c. Write a short note on papillomatosis. 3

8. a. Write down the pathology of PPR in goat. 3
 b. Describe the pathogenesis of rabies. 4

9. a. Describe the pathogenesis, pathology and public health significance of anthrax. 5
 b. How you will diagnose anthrax in field condition. 2

10. a. Write down the etiology, pathogenesis and pathology of Ringworm in cattle. 4
 b. Write a short note on rhinosporidiosis. 3

11. a. In which disease micro-abscesses are observed in brain? Write down its pathogenesis and pathology. 5
 b. Enlist five diseases with their etiologies which may cause abortion in cattle. 2

12. a. Write down the pathogenesis of bovine viral diarrhoea and mucosal disease complex. 4
 b. Write a short note on contagious ovine ecthyma. 3

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2014
Course Title: Protozoology (Theory)
Course Code: PRT- 302 (T)
Full Marks: 70. Time: 3 Hours

Figures in the right margin indicate full marks. Answer any **FIVE** questions from each section.
 Use separate answer scripts for each section.

Section-A

1. a) Define Protozoa. Mention different structures of protozoa with their functions. 3
 b) Describe the sexual and asexual multiplication of protozoa. 4
2. a) Compare the morphological features among the phylum of Sarcomastigophora, Apicomplexa and Cilliophora. 3
 b) Briefly describe the mode of transmission, pathogenic significance and control measures of *Trypanosoma evansi*. 4
3. a) Sketch the life cycle of Leishmania parasite. 3
 b) Briefly describe the role of reservoir host in the epidemiology of visceral leishmaniasis. 3
 c) What is PKDL? 1
4. a) Draw and label a trichomonad parasite. 3
 b) Name three protozoa causing abortion in cow. 2
 c) Do you think bull plays an important role in the epidemiology of bovine trichomoniasis? Justify your statement. 2
5. a. What do you mean by extra- intestinal cycle of *Toxoplasma gondii*? 2
 b. "Cat plays an important role in the epidemiology of Toxoplasmosis"- Justify. 2
 c. Write down the pathogenic significance of *Toxoplasma gondii* in pregnant animals and women. 3
6. a. Enumerate the hemoprotozoan parasites of bird with the name of vectors. 2
 b. What are the differential features between the life cycles of Plasmodium and Leucocytozoon? 2
 c. Write down the pathogenic significance of avian malaria. 3

Section-B

7. a) Briefly describe the different types of nutrition of protozoa. 4
 b) Do you think a vaccine made from a protozoan will produce strong immunity against the corresponding infection? 3
8. a) Enumerate the hemoprotozoa of cow. How can you diagnose bovine ehrlichiosis? 4
 b) Describe the pathogenesis of bovine babesiosis. 3
9. a) Draw and label a typical sporulated oocyst of *Eimeria* sp. 3
 b) Enlist the coccidian species of poultry in Bangladesh. 2
 c) What do you mean by "self limiting disease" and shuttle programme"? 2
10. a. Differentiate any three of the followings. 2x3= 6
 (i) Flagellum and cilium
 (ii) Cyst and trophozoite
 (iii) Salivarian and stercorarian group trypanosomes
 (iv) Transovarian and transstadial development of *Babesia* sp. in ticks.
 b. Name the vectors of trypanosomes. 1
11. a. Briefly describe the general locomotion in protozoa. 3
 b. Write a short note on Black head disease in turkey. 4
12. a. Name the species of *Theileria* that occur in cattle. Briefly describe the morphology and epidemiology of *Theileria parva* in cattle. 4
 b. Show the life cycle of *Theileria parva* infection in cow in sketch form. 3

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2014
Course Title: Immunology and Serology (Theory)
Course Code: IMS -302 (T)
Full Marks: 55. Time: 3 (Three) Hours

Figures in the right margin indicate full marks. Answer **THREE** questions from each section of which question no. 1 is compulsory. Use separate answer scripts for each section.

Section-A

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|-------|----|---|---|
| 1. | a. | Mention the contribution of five scientists in the field of immunology. | 2 |
| | b. | Discuss basic phenomenon of immune response. | 5 |
| | c. | Show pattern recognition receptors with corresponding PAMP molecules in a tabular form. | 3 |
| ----- | | | |
| 2. | a. | Define vaccine. | 1 |
| | b. | Discuss different types of vaccine with examples. | 4 |
| | c. | What are the reasons that are responsible for vaccination failure? | 3 |
| | d. | What do you mean by adjuvant? | 1 |
| 3. | a. | Mention the biological properties of complement. | 3 |
| | b. | Discuss the different pathways of complement activation. | 6 |
| 4. | a. | What are the differences between monoclonal antibody and polyclonal antibody? | 2 |
| | b. | Describe the principle of monoclonal antibody production. | 5 |
| | c. | What are the uses of monoclonal antibody in veterinary practice? | 2 |

Section-B

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|----|----|--|---|
| 5. | a) | Differentiate MHC class I from MHC class II molecule with figures. | 3 |
| | b) | Draw and label a typical IgG molecule. | 2 |
| | c) | Differentiate different types of immunoglobulin molecule in a tabular form. | 4 |
| 6. | a) | If a chicken is infected with infections bursal disease virus, then explain how its APC will process the virus and present to the immune system. | 5 |
| | b) | Discuss extracellular antigen processing pathway. | 4 |
| 7. | a) | What are the bases of classification of hypersensitivity? | 3 |
| | b) | Differentiate Arthus reaction from type I hypersensitivity | 3 |
| | c) | What is autoimmunity? Describe normal immune response to abnormal antigen with some examples. | 3 |
| 8. | a) | Define cytokine. | 2 |
| | b) | List the properties of cytokines. | 3 |
| | c) | Explain the role of TNF α and γ Interferon in immune response. | 4 |

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination – 2014

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 **THREE** questions from each section of which questions 1 and 5 are compulsory. Use separate answer scripts for each section.

Section-A

1. a. Define General Medicine and Preventive Medicine. Write down the significance of General Medicine in livestock. **5**
b. What is your opinion regarding activities and scopes of Veterinarians in Aquatic Medicine. **3**
c. Briefly describe the events of recognition of Veterinary Graduates in Bangladesh. **3**
2. a. Differentiate between epistaxis, hemoptysis and hematemesis. Write down the common treatment of them. **6**
b. A 5 years old race horse had intermittent pyrexia for 9 weeks. After 2 races during that period, the horse had epistaxis. Physical examination revealed nasal discharge and abnormal lung sounds. What is your diagnosis and accordingly give a necessary treatment of it. **6**
3. a. Write down the principles of manifestation of nervous system dysfunctions. How will you choose antibiotics based on inflammatory conditions of nervous system? **6**
b. Tabulate the degree of severity of dehydration and guideline for its assessment. **6**
4. a. Differentiate heat stress from heat stroke. **4**
b. Rectal temperature of a Bull is 107⁰F. How will you diagnose whether the Bull is suffering from fever or heat stress? **4**
c. A Black Bengal goat is suffering from complete anorexia, ruminal atony and depression. On history, the animal has consumed large amount of rice. Write down the diagnosis and make a treatment. **4**

Section-B

5. a. Differentiate hyperkeratosis from parakeratosis. **4**
b. What is dermatitis? Highlights the etiology of dermatitis in animals. **4**
c. A kid is suffering from fever and bilateral swollen knee joint. What is the diagnosis that you assume? Write down the line of treatment of this disease. **3**
6. a. Define diarrhea, constipation and scant feces with relevant etiologies. Write down the principles of diagnosis of digestive system dysfunctions. **4**
b. Write down the common risk factors and line of treatment of urolithiasis. **4**
c. A calf is showing restlessness following accidental ingestion of mango seed. Physical examination revealed pain in a selected ventral neck region. What is your presumptive diagnosis? Write down the line of treatment of manage this case. **4**
7. a. Differentiate myopathy from myositis. **4**
b. Write down the etiology and clinical findings of osteodystrophia fibrosa in goat. **4**
c. A doe was admitted to SAQTVH with weakness, yellowish mucous membrane and micturation. How do you interpret the case to set a presumptive diagnosis? Put a line of treatment for this doe. **4**
8. a. What type of pneumonia that may develop due to forceful drenching? Write the clinical findings and line of treatment of the pneumonia. **4**
b. Differentiate hematuria from hemoglobinuria. What are the major manifestations of urinary tract disease? **5**
c. What are common clinical findings of toxemia in sheep? **3**

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Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2014
Course Title: Poultry Nutrition (Theory)
Course Code: PNT- 302 (T)
Full Marks: 55. Time: 3 Hours

Answer any **THREE** questions from each section of which question no **5** is compulsory.

Section-A

1. a) Define diet, nutrition, supplement and nutritive value. Write down the nutritive value of protein concentrate and soybean meal. 6
b) What is feed conversion ration? Discuss the factors affecting feed conversion ratio in poultry. 3
2. a) Define essential amino acid. List the essential amino acids for chicken. 4
b) What is crude fibre? Write down the recommended level of crude fibre in broiler and layer rations. Discuss the limitations of increasing fibre level in poultry ration. 5
3. a) Mention the different systems of feeding poultry under Bangladesh perspective. What type of feeding system would you recommend for feeding broiler and layer chickens? 6
b) Briefly discuss controlled vs restricted feeding system for poultry. 3
4. Write short notes on any **three** of the followings: 3×3 9
 - a) Calorie-Protein ratio in poultry
 - b) Calcium, Phosphorous and Vitamin D interrelationship
 - c) Phase feeding
 - d) Cage layer fatigue

Section-B

5. a) Suppose you have six hundred ISA Babcock chickens in your farm. How much feed (maize, soybean meal, auto rice polish, protein concentrate and common salt) will be required from day-old to 52-week old chickens for your flock? 7
b) Discuss the role of Copper, Manganese and Zinc for parent stock. 3
6. a) How will you formulate a low cost ration for village poultry? 4
b) Briefly discuss the advantages and disadvantages of using antibiotics in poultry ration. 5
7. a) What is mycotoxin? Briefly discuss the safe level of mycotoxins in feed and poultry products? Discuss the control measures of mycotoxin hazards in feed in Bangladesh? 7
b) Write down the nutrient requirement of broiler finisher and layer grower chickens. 2
8. a) Briefly discuss the procurement and storage strategy of poultry feed ingredients under hot humid tropical perspective of Bangladesh. 6
b) Discuss the reasons of using tranquilizer in poultry ration. 3

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2014
Course Title: Pharmacology and Therapeutics (Theory)
Course Code: PHT- 302 (T)
Full Marks: 55. Time: 3 (Three) Hours

Figures in the right margin indicate full marks. Answer **THREE** questions from each section of which question no. 1 is compulsory. Use separate answer scripts for each section.

Section-A

1. a) Explain "Chemotherapeutic Triangle". 2
b) Define drug resistance. Write down different mechanisms of resistance to antibiotics. 3
c) Write down different considerations to use antimicrobials in poultry and livestock. 5
2. a) Explain potentiated sulphonamides. What are the differences between sulphonamide and potentiated sulphonamide? 2
b) What is cotrimoxazole? Write down the mode of action of cotrimoxazole with indications. 4
c) What is carnicterus and stevens joint syndrome? How will you avoid crystaluria? 3
3. a) Write down the characteristics of ideal anthelmintics. Classify anthelmintics with examples. How do levamisole and ivermectin act against parasites? 3
b) Write in tabular form of 2 antiprotozoal, 2 anticestodal and 2 anticoccidial drugs with their brief mode of actions and doses. 4
c) How does quinolone work against bacterial diseases? Write down the toxic effects of quinolones. 2
4. a) Explain fluid therapy. How does dehydration case can be diagnosed? How will you treat a case of ketosis with dehydration in case of high yielding cows? 4
b) Write down indications and mode of action of enrofloxacin. 2
c) Why should tetracycline not be used in milking and growing animals? 3

Section-B

5. a) Define antiseptics, fumigants and preservatives. 3
b) Write down the history, biosynthesis, mode of action and indication of resistance of texiobactin. 4
c) Why are aminoglycosides not very effective in treating infectious abscesses? 2
6. a) What is endocrine pharmacology? Write down the drugs of estrus synchronization of a heifer herd with protocol. 4
b) Write down the vaccination schedule of broiler and dog. 3
c) A dog develops facial swelling after an injection of penicillin G. Would amoxicillin be an alternative safe drug to use this dog? 2
7. a) Classify antifungal drugs. List 5 antifungal drugs with doses and indications. 3
b) Explain pharmacology of "Metronidazole". 3
c) Classify prescription. Write a prescription of pyometra in Red Chittagong Cattle. 3
8. Write short notes on (any three) 3X3= 9
a) Antiviral drugs; b) Herbal drugs; c) Veterinary biologicals; d) Antibiotic residues

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2014
Course Title: Poultry Production (Duck, Quail and Pigeon) (Theory)
Course Code: PPR- 302 (T)
Full Marks: 70. Time: 3 Hours

Answer any **THREE** questions from each section of which question no **1 and 5** are compulsory.

Section-A

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|-------|---|---------|
| 1. | a) Give the taxonomical classification of waterfowl species. | 3 |
| | b) What do you mean by waterfowl? Why water is so essential for them? | 3 |
| | c) Define mallard. How does mallard contribute in the development of modern domestic ducks? | 5 |
| <hr/> | | |
| 2. | a) Write down some peculiarities of quails. | 3 |
| | b) How are male quails separated from females from day old to puberty? | 4 |
| | c) Quails are not fully domesticated -Justify this statement. | 5 |
| 3. | a) What is squab? Why is squab meat popular among peoples? | 2 |
| | b) State the hatching and rearing management of squab. | 4 |
| | c) Write down the sexing of pigeons and geese. | 3 |
| | d) Briefly describe the feeding, fattening and marketing of geese. | 3 |
| 4. | Write short notes on any four of the followings: | 4x3= 12 |
| | a) Management of keet | |
| | b) Physiology of crop milk | |
| | c) Prospects of rearing guineafowl | |
| | d) Vaccination schedule in duck | |
| | e) Pinioning | |

Section-B

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|----|--|---|
| 5. | a) State the prospects and problems of duck rearing in Bangladesh. | 4 |
| | b) What is breed? Classify duck breeds on the bass of utility. Write down the productive parameters of 2 egg and 2 meat producing duck breeds. | 5 |
| | c) Write down the zoological classification of muscovy duck and mention it's varities. | 2 |
| 6. | a) What are different duck production systems practiced in south-east-Asia? Which system is much suitable for Bangladesh and Why? | 3 |
| | b) Why is wet mash more preferable in duck? Write down a standard ration for layer duck mentioning it's ME and CP. | 3 |
| | c) State the zoological nomenclature of ' Turkey '. Write down the production potentiality of turkey. | 3 |
| | d) Classify the breeds of geese on the basis of body weight. | 3 |
| 7. | a) Purposively classify pigeon breeds with examples. | 3 |
| | b) How will you catch and handle ducks in a flock? | 4 |
| | c) Describe how are duck eggs incubated naturally? | 5 |
| 8. | a) What are the wild species of guineafowl and ring-neck pheasant? | 3 |
| | b) Which bird is known as " Holiday Bird " and why? Why guineafowls are known as ' Worst Mother ' and ' Watch Dog '? | 5 |
| | c) Write down the special features of pigeon farming. | 4 |