

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2022
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 five (5) questions from each section. Use separate answer script for each section. Fractions of the question are encouraged to answer together.)

SECTION-A

1. a) What is pink eye? Write down its etiology and pathology. 4
b) Write down the pathogenesis of 'botulism' in cattle. 3
2. a) What do you mean by systemic fungal infection? Enlist fungal diseases where systemic infections are observed. 2
b) Write down the etiology, pathogenesis and pathology of 'ring worm infection'. 5
3. a) Enlist viral diseases where intranuclear and intracytoplasmic inclusion bodies are observed. 2
b) Briefly describe the transmission and pathogenesis of 'rabies' in cattle. 5
4. a) Enlist the toxin produced by different bacteria. 3
b) What do you understand by 'blackberry jam spleen' and 'islands in the red sea'? 4
5. a) What is PPR? Write down some characteristic gross and microscopic lesions of it in goats. 5
b) Briefly describe the transmission of 'lumpy skin disease' in cattle. 2
6. a) Write down the pathogenesis and pathology of the disease that causes 'inverse age resistance'. 5
b) How will you differentiate the pathogenesis of 'anaplasmosis' from that of 'babesiosis'? 2

SECTION-B

7. In which bacterial disease there is formation of micro-abscesses in brain? Mention the pathogenesis and pathology of it. 7
8. Write down the pathogenesis and pathology of 'fascioliasis' in cattle. How edema/bottle is produced in case of 'haemonchosis'? 7
9. a) Show the mechanism of formation of a tubercule in case of TB. 4
b) Why brucella organisms cause late abortion and why there occurs retention of placenta? 3
10. Write down the pathogenesis and pathology of 'bovine viral diarrhoea' and 'mucosal disease'. 7
11. Write down the pathogenesis of the following disease (any two). 3.5X2=7
i) HS in buffalo ii) Infectious canine hepatitis iii) Verminous pneumonia
12. a) Enlist the diseases caused by prions in man and animals. 1
b) Mention the gross lesions of the following diseases (any four). 1.5X4=6
i) Warts ii) Nodular worm disease iii) Johne's disease iv) Mastitis and v) Goat pox

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2022
Course Title: General Medicine and Production Diseases (Theory)
Course Code: GPD-302 (T)
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **THREE (3)** questions from each section where question number **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the question are encouraged to answer together.)

SECTION-A

1. a) Define and classify Veterinary Medicine. Describe the activities and scopes of Veterinary Medicine in Bangladesh. 2+4=6
- b) Define shock and dehydration. Write down the composition of HS, NS, CS and DNS. 1+4=5
2. a) Define bloat. Outline the clinical features and treatment protocol of a cow weighing 30 kg having frothy bloat. 1+3=4
- b) Enlist the diseases of cardiovascular system in animals. Write down the treatment of congestive cardiac failure in a dog. 2+2=4
- c) List the possible diseases you may confuse with grass tetany and post parturient hemoglobinuria. Mention significant features to distinguish them. 4
3. a) List the common diseases or conditions of nervous system. Write down the principles of treatment of skin diseases. 1+3=4
- b) Define acidosis. What causes acidosis in ruminant? Compose a line of treatment for ruminal acidosis. 4
- c) Write down the risk factors and common lodgment sites of uroliths in goat. Suggest the line of treatment of cystitis in goat. 2+2=4
4. a) Define and classify anemia. How will you treat a severe anemic goat at SAQTVH? 1+3=4
- b) Define metabolic diseases. Why high yielding dairy cow is more prone to metabolic diseases? 1+2=3
- c) What would be the line of treatment of milk fever and ketosis in dairy cows? 5

SECTION-B

5. a) Define and classify jaundice. Write down the causes of pre-hepatic jaundice in farm animals. Outline the treatment protocol of an animal having jaundice. 1+2+2=5
- b) Describe different methods of drug administration in horse. 3
- c) Write down the significant clinical signs of following conditions- 3
 - i. Gastritis in dog
 - ii. Cystitis in goat
 - iii. Azoturia in horse
6. a) Differentiate following conditions clinically- 4
 - i. Hemoptysis and hematemesis
 - ii. Hyperkeratosis and parakeratosis
- b) Define pneumonia and pneumonitis. How do you differentiate various types of pneumonia based on clinical examination? 1+3=4
- c) Mention the clinical manifestations and suggest treatment for following conditions- 4
 - i. Iodine deficiency
 - iii. Vitamin E deficiency
7. a) How would you diagnose an animal affected with fibrous osteodystrophy? Design a line of treatment for that animal. 2+2=4
- b) Enlist disease or disorders of urinary system in animals. How will you manage a cow suffering from pyometra? 2+2=4
- c) Mention the significant signs of true colic in horse. How would you treat a horse of 500 kg body weight with colic? 2+2=4
8. Write short notes on (any three)- 3×4=12
 - a) Peat scour in cattle
 - b) Peritonitis in ruminant
 - c) Polioencephalomalacia in goat
 - d) Photosensitization in cattle

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2022
Course Title: Protozoology (Theory)
Course Code: PRT-302 (T)
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer **three (3)** questions from each section where **question 1** is compulsory. Use separate answer script for each section. Fractions of the question are encouraged to answer together.)

SECTION-A

1. a) Enlist the *Eimeria* species causing coccidiosis in chicken. 2
 b) Write down the transmission and the life cycle of '*Eimeria tenella*'. 3
2. a) Define protozoa. Describe the process of nutrition uptake by the protozoa from a host. 3
 b) Briefly describe the different types of locomotion demonstrated by the protozoa. 3
3. a) Enumerate the protozoa that cause abortion in cow. Write down the pathogenic significance, preventive and control measures of 'bovine tritrichomoniasis'. 3
 b) How will you diagnose 'enteric protozoal infections' in animals? 3
4. a) Write down the life cycle and pathogenic significance of *Toxoplasma gondii* infection in animals. 4
 b) Describe various developmental stages of Trypanosomes. 2

SECTION-B

5. a) Draw and label different morphological characters of the oocysts of protozoa belonging to the genera *Eimeria*, *Isospora*, *Wenyonella* and *Cryptosporidium*. 2
 b) How will you diagnose haemoprotozoan diseases in cattle? 1
 c) Mention the name of the causal agent(s) and vectors of the following disease (any six). 0.5X6=3
 i) Red water fever (bull) ii) Oriental sore (dog) iii) Dourine (mare)
 iv) Dumdum fever (Fox) v) Corridor disease (cattle) vi) East coast fever (ox)
 vii) Surra (stallion) viii) Tertian malaria (chimpanzee)
6. a) Enlist the protozoa which cause diarrhoea in animals. 1
 b) Define Zoonosis. Illustrate the sources and methods of transmission of protozoal zoonotic diseases. 3
 c) How will you prevent and control the zoonotic protozoan diseases? 2
7. a) List the haemoprotozoa of ruminants. 1
 b) Mention the epidemiology and clinical findings of 'Canine Ehrlichiosis'. 2
 c) Differentiate trophozoite from cyst and Eukaryotic cell from prokaryotic cell. 3
8. a) Enlist the blood protozoa of birds. Illustrate the significance of 'leucocytozoonosis' in ducks. 2
 b) Explain the life cycle and pathogenesis of *Haemoproteus columbae* in pigeons. 2
 c) Write short note on *Histomonas* sp or *Sarcocystis* sp. 2

Chattogram Veterinary and Animal Sciences University
DVM 3rdYear 2ndSemester Final Examination-2022
Course Title: Toxicology (Theory)
Course Code: TOX-302(T)
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer three (3) questions from each section where question number 1 and 5 are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together.)

SECTION-A

1. a) Define and classify toxicology. Write down the scope of veterinary toxicology. 3
b) Briefly describe the procedure of collection, preservation and sending method of materials for toxicological analysis. 4
c) Define the terms: - poison, toxin, LD₅₀, and hazard. 4
2. a) How do rabbit bypass atropine toxicity? Why are young animals more susceptible to toxicants? 2+2=4
b) Sort the organs based on drug metabolizing ability. 4
c) Group the toxicity potential with the lethal dose. 4
3. a) A cattle is showing symptoms of muscular tremor and dyspnea following the ingestion of fertilized forage. What is your diagnosis and how will you manage the case? 4
b) How does salt poisoning alter body physiology? Explain. 4
c) Briefly discuss the clinical findings and prognosis of aflatoxicosis. 4
4. a) Enlist the major clinical signs and treatment procedure of selenium poisoning. 4
b) Briefly describe the treatment strategy of gas tablet poisoning in dogs. 4
c) Differentiate between nitrate and urea poisoning in terms of clinical signs and treatment. 4

SECTION-B

5. a) Briefly describe the mechanism of action of organochlorine poisoning. 4
b) How does Chattogram get rid from tones of DDT in 2022? 4
c) How will you treat DDT poisoning in animals? 3
6. a) Differentiate between venomous and nonvenomous snake. 4
b) How will you manage snake bite in cattle? 4
c) Briefly describe the line of treatment of paracetamol poisoning in cat. 4
7. a) Discuss the sources and postmortem findings of arsenic toxicity. 4
b) How do aminoglycosides affect renal and auditory functions? How can you minimize the risk of gentamicin toxicity in animals? 4
c) A high dose of oxytetracycline is indicated in septicemic and endotoxemic cattle. Do you agree or disagree with the statement? Explain. 4
8. a) Do plants have teratogenic effects? Discuss neurolathyrism. 4
b) Discuss the effects of systemic toxicity caused by honey bee attacks. 4
c) Synchronize the pathogenesis of oxalate poisoning with clinical signs. 4

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2022
Course Title: General Surgery, Lameness and Soundness (Theory)
Course Code: GLS-302 (T)
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **THREE (3)** questions from each section where question number **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the question are encouraged to answer together.)

SECTION-A

1. a) Define surgery. Describe the aim and principles of modern surgery. 1+2=3
 b) What are the allied sciences need to know to become a good surgeon? Enlist the general surgical conditions available at SAQTVH. 2+2=4
 c) Define abscess and cyst. How will you treat an immature, mature and deep abscess? 1+3=4

2. a) Classify wound based on nature of injury. 4
 b) Describe the wound healing process. 4
 c) Describe the conditions need to be considered for breeding soundness in a mare. 4

3. a) Define hemorrhage and hemostasis. Classify fracture according to direction of fracture line. 1+3=4
 b) What is sinus and fistula? How will you correct recto-vaginal fistula in a calf? 1+3=4
 c) Describe the fracture reduction techniques. 4

4. Write short notes on (any three)- 3×4=12
 a) Navicular disease in horse b) Dermoid cyst in calf
 c) Yoke gall in bullock d) Disbudding in calf

SECTION-B

5. a) Define following terms- minimally invasive surgery, laser surgery, radical surgery, robotic surgery. 2
 b) Define lameness. Explain the effects of lameness in dairy and beef industry. 1+3=4
 c) How will you manage a complicated tibia-fibula fracture in a calf? 5

6. a) Differentiate between arthritis and hygroma. Enlist the common lameness conditions found at SAQTVH and in field condition. 3+2=5
 b) How will you diagnose a cat suffering from both hind limb paralysis? 3
 c) Describe the management protocol you will adopt to control infectious arthritis in calf in commercial dairy farm. 4

7. a) Define laminitis. Describe the predisposing factors of laminitis in beef fattening farm. 4
 b) Illustrate the anatomy of stifle joint. Which is the common problem of stifle joint in dairy cow? How will you diagnose and treat that problem? 1+1+4=6
 c) How can you prevent pododermatitis in animals of a commercial dairy farm? 2

8. a) Differentiate following conditions on the basis of palpation, duration of onset, inflammatory nature and needle aspiration- abscess, cyst, tumor, hematoma. 4
 b) Classify burn according to severity. Illustrate the line of treatment of burn. 1+3=4
 c) Write down the line of treatment of benign and malignant tumor. 4

Chattogram Veterinary and Animal Sciences University
DVM 3rd year 2nd Semester Final Examination-2022
Course Title: Immunology & Serology (Theory)
Course Code: IMS-302
Full Marks:35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer Two (2) questions from each section where question number 4 is compulsory. Use separate answer script for each section. Fractions of the questions should be answered together.)

SECTION-A

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|----|---|-----|
| 1. | a) Summarize contributions of five Nobel laureate scientists in the field of immunology. | 4.0 |
| | b) Distinguish innate and adaptive immunity in a tabular form. | 2.0 |
| | c) Give an overview of immune response with a diagram. | 3.0 |
| 2. | a) What is a Toll like receptor (TLR) and why is it so called? List corresponding TLR Number with their respective ligand molecules which are present in different organisms. | 3.0 |
| | b) How does microbe evade phagocytosis process? | 3.0 |
| | c) Explain phagocytosis process. | 3.0 |
| 3. | a) Define cytokine. Write in brief the different properties of cytokine. | 3.0 |
| | b) Illustrate functions of TNF- α , IL-12 and γ (gamma) Interferon. | 3.0 |
| | c) What is complement? Elucidate classical pathway of complement activation. | 3.0 |

SECTION-B

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|----|--|---------|
| 4. | a) Define vaccine. | 1.0 |
| | b) Write down different alteration processes of microorganisms for the production of vaccines. | 3.0 |
| | c) Define adjuvant. How does it enhance vaccine efficiency? Mention different types of adjuvants. Differentiate between live and inactivated vaccines. | 4.0 |
| 5. | a) Define the following terms: (i) Immunology (ii) The immune system (iii) Immunity | 1x3=3.0 |
| | b) Show the differences between Innate and Acquired immunity in a diagram. | 3.0 |
| | c) Enlist salient features of a good antigen. Give examples of systemic autoimmune diseases. | 2+1=3.0 |
| 6. | a) Define antibody and interferon. Differentiate different types of immunoglobulins with their functions. | 1+2=3 |
| | b) Explain type I and Type IV hypersensitivity reaction. | 3.0 |
| | c) Differentiate between polyclonal and monoclonal antibody. | 3.0 |

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2022
Course Title: Livestock Economics and Marketing (Theory)
Course Code: LEM-302 (T)
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **three (3)** questions from each section where question number **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together.)

SECTION-A

1. a) Explain the term of agricultural economics, livestock economics and animal health economics. 3
- b) Write down the necessity of studying livestock economics. 4
- c) Distinguish between elastic and inelastic demand. 4

2. a) Illustrate the indifference curve with suitable graph. 3
- b) How does consumer's equilibrium attain with the help of indifference curve? 5
- c) Calculate price elasticity of demand with interpretation when per unit price of broiler decreases tk 180 to tk 160 and its quantity demand increases from 350 units to 500 units. Also draw the graph. 4

3. a) What is the difference between perfect competitive market and monopoly market? 3
- b) State and discuss the law of demand graphically with its limitation. 5
- c) Write the relationship between marginal cost (MC) and average cost (AC) curve. 4

4. a) Why 2nd stage of production is called as a production stage? 3
- b) State and briefly discuss the 3-stages of production. 5
- c) Define production. Write the factors of production with their respective rewards. 4

SECTION-B

5. a) Is marketing a process of complex and costly? - Explain. 3
- b) Distinguish between marketing and selling. Write down the importance of livestock marketing. 4
- c) Briefly discuss the functionary approach of livestock marketing in context of Bangladesh. 4

6. a) How the trade channels are disrupted? 3
- b) What factors govern the choice of channel selection in marketing of livestock products? 5
- c) Define marketing channel. Briefly describe the elements of marketing channel. 4

7. a) Illustrate some challenges for a commercial dairy farming system in Bangladesh. 3
- b) Briefly discuss on merchant and agent middlemen involved in marketing. 5
- c) Explain how co-operative marketing help the dairy farmers in case of milk vita. 4

8. Write short notes on (any three): 3x4=12
 - i) 4Ps of marketing
 - ii) Wholesaling vs retailing
 - iii) Marketing efficiency
 - iv) Market equilibrium model
 - v) Malthusian population theory

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2022
Course Title: Dairy Science (Theory)
Course Code: DSC-302(T)
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **three (3)** questions from each section where question number **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the questions are encouraged to answer together.)

SECTION-A

1. a) Define market milk. Write down the analytic detail chemical composition of market milk. 3
 b) UHT vs Pasteurized milk which one is a better choice? 2
 c) Briefly describe the HTST milk pasteurization. 6

2. a) What are the differences between Butter and Ghee? 2
 b) What are the various methods of manufacture of Butter? Describe which one is suitable for commercial Butter operations. 1 + 3 = 4
 c) Briefly describe the sensory evaluation score card for ghee. 3
 d) How can you proceed for analysis of adulterated ghee? 3

3. a) Define cheese with classification. 2
 b) Briefly describe the Cheddar cheese or *Mozzarella* cheese manufacture with a diagram. How can you estimate cheese yield? 3+1 = 4
 c) What is the role of starter microorganisms in the manufacture of cheese? 3
 d) Briefly describe the key potential metabolic health benefits of cheese. 3

4. Write short notes on **any four (4)** : 3 x 4=12
 a) LP for milk preservation b) Glamorous girl of dairy industry c) Milk chilling d) History of market milk in Bangladesh e) Reconstituted milk f) Toned milk

SECTION-B

5. a) What is ghee? Enlist the methods of manufacture of ghee. 1 + 1 = 2
 b) Discuss the industrial method of ghee making. 6
 c) Burn flavor, rancid flavor and greasy texture are the common defects in ghee – why these defects occur and how can you prevent those? 3

6. a) Mention the principles of cream separation. 2
 b) What is Stoke's law of cream separation? 2
 c) Explain the causes of more fat loss through skim milk during centrifugal separation of cream. 5
 d) Mention the common flavor defects, causes and remedies of market cream. 3

7. a) Mention the methods of buying milk with advantages & disadvantages and which one is more accepted to you & why? 5
 b) Illustrate the factors affecting the quality and quantity of milk production. 7

8. Write short notes on **any four (4)** 4×3=12
 a) Acidophilus milk b) Detail composition of milk c) Freezing procedure of ice-cream d) Rasogolla e) Importance of dairy farming in Bangladesh f) Austogram cheese g) Sweet dahi