Chattogram Veterinary and Animal Sciences University

DVM Sixth Semester Final Examination 2023

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 numbers **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the questions are encouraged to be answered together.)

SECTION-A

1. a) Define Veterinary Surgery. How will you differentiate a surgeon from a physician and a clinician? 1+2=3
   b) Describe the principles of modern surgery. Enlist the general surgical conditions in small ruminants and pet animals available at SAQTVH. 2+2=4
   c) Describe the stages of wound healing process. 4

2. a) Define gangrene. Write down the etiology and line of treatment of gangrene. 1+3=4
   b) Explain the cardinal signs of inflammation. 4
   c) Describe wound based on time. How will you manage a contaminated wound? 2+2=4

3. a) Differentiate sinus and fistula. How will you surgically correct recto-vaginal fistula in a calf? 1+3=4
   b) Describe the clinical signs and treatment procedure of mammary gland tumor (unilateral) in cat. 1+3=4
   c) A dog was presented in TVH with burn. Clinical examination revealed that dermis and muscle were affected. Diagnose the degree of burn. How will you manage this type of burn? 1+3=4

4. a) Mention the line of treatment for gastric ulcer in dog. 4
   b) Define dehorning and disbudding. Why dehorning is important in a cattle farm? 1+2=3
   c) Describe the different methods of dehorning in cow. 5

SECTION-B

5. a) Describe yoke gall, sand crack, sidebone, paresis, laser surgery and conservative surgery. 3
   b) Describe the conditions need to be considered for breeding soundness in a mare. 3
   c) How will you manage upward patellar fixation in a cow? 5

6. a) Define lameness. Explain the effects of lameness in dairy and beef industry. 1+3=4
   b) A newborn calf was admitted in TVH with the clinical signs of walking on its toes and flexed fetlock joints. What will be your diagnosis and treatment? 1+3=4
   c) How will you diagnose and treat a dog with hind limb paralysis? 4

7. a) Differentiate arthritis and hygroma in goat. Briefly describe the line of treatment of acute infectious arthritis. 1+3=4
   b) Mention the treatment procedure for false joint formation in goat. 3
   c) Define laminitis. How will you manage a cattle suffering from infectious pododermatitis? 1+4=5

8. Write short notes on (Any three): 3×4=12
   a) Uropygeal abscess in myna
   b) Hip dislocation
   c) Ringbone
   d) Dermoid cyst

DVM Sixth Semester Final Examination-2023
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 numbers **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the questions are encouraged to be answered together.)

SECTION-A

1. a) Explain the concept of lethal dose (LD_{50}) in Toxicology. 3
   b) Describe the general mechanism by which poisons exert their effect on the animal body. 4
   c) What are the factors that alters the action of poisons in the animal body and what are the general principles of poisons treatment? 4

2. a) What are the common sources of arsenic exposure to animals? How does arsenic exposure affect organ system in animals? 1+3=4
   b) Why high yielding cows are more susceptible in arsenic poisoning and how will you treat the cows? 4
   c) How can arsenic poisoning in livestock be prevented? 4

3. a) How does sodium chloride toxicity occur? What are the common causes of sodium chloride poisoning? 2+2=4
   b) Explain the effect of ergot toxin on the vascular system and mention the symptoms of ergot poisoning in cattle. 4
   c) Describe the preventive measures of Lead poisoning in livestock. 4

4. a) How does organophosphorus compounds affect the nervous system and lead to toxicity? 4
   b) How can farmers and workers minimize the risk of organophosphorus poisoning in occupational settings? 4
   c) What are the signs of honey bee toxicity in animals? How can you manage the case? 2+2=4

SECTION-B

5. a) Differentiate between: 2+2=4
      i) Toxicokinetics and Pharmacokinetics
      ii) Poison and Toxin
   b) Define Environmental Toxicology. Describe how air and water become polluted in Bangladesh. 1+3=4
   c) How will you classify toxicants based on toxicity potential? 3

6. a) Enlist the poisoning cases that are sourced from plants. Name some cyanogenic and teratogenic plants. 1+3=4
   b) Discuss the effects of toxicity of Puffer fish. How will you suggest people about Puffer fish poisoning. 2+2=4
   c) How can you identify Datura plants in wild and why is it important to avoid them? 4

7. a) Define anaphylaxis. Explain briefly the causes of anaphylaxis. 1+3=4
   b) Sketch the line of treatment of gas tablet poisoning in dogs. 4
   c) Enlist 10 drugs combinations that can be toxic for different species. How will you manage drug toxicity? 2+2=4

8. a) Suppose a goat is passing greenish fluid faeces and died after a moment. On post mortem examination it's spleen has a characteristic black-berry jam appearance. How will you treat this goat? 4
   b) Mention the type of toxin produced from punctured wound and how it shows pathogenicity in cattle? How will you treat this condition? 2+2=4
   c) Write a prescription of paracetamol poisoning in cat. 4

Chattogram Veterinary and Animal Sciences University
DVM Sixth Semester Final Examination-2023
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 number **1** is compulsory. Use separate answer script for each section. Fractions of the questions are encouraged to be answered together.)

SECTION-A

1.	(a)	Define protozoa. Draw and label various structures of a typical protozoon.	1+2=3
	(b)	Briefly describe the asexual reproduction of protozoa.	2
2.	(a)	Enlist important blood protozoa and rickettsia reported in Bangladesh.	2
	(b)	Briefly describe the life cycle of *Theleria orientalis* and its pathogenic significance in cattle.	4
3.	(a)	Explain the epidemiology of chicken coccidiosis in commercial poultry.	2
	(b)	How will you prevent and control chicken coccidiosis in a commercial layer farm?	2
	(c)	Why is coccidiosis described as a man-made disease? Explain.	2
4.	(a)	List the protozoan parasites of public health importance.	2
	(b)	Enlist the various infective stages of *Toxoplasma gondii.*	2
	(c)	Explain how cats and sheep contribute to the spread of toxoplasmosis.	2

SECTION-B

5.	(a)	Mention the *Babesia* species reported in dog, cat and horse.	2
	(b)	Briefly describe the epidemiological factors and pathogenesis of canine babesiosis.	2
	(c)	Explain the consequences of canine leishmaniasis.	2
6.	(a)	Mention the name of causal agent(s) and vector (s) of the following diseases.. i) Dumdum fever (fox) ii) Red water fever (cattle) iii) Surra (stallion) iv) Corridor disease (cattle) v) Coccidiosis (turkey) vi) Leukocytozoonosis (duck)	0.5×6=3
	(b)	How will you diagnose the following protozoal infections in a clinical parasitology laboratory? i) Avian malaria (poultry) ii) Ehrlichiosis (dog) iii) Cryptosporidiosis (calf)	1×3=3
7.	(a)	Enlist the protozoa that cause abortion in cow. Write down the management of a bull and cow infected with *Tritrichomonas foetus.*	1+2=3
	(b)	Illustrate the developmental stages of trypanosomes. Why is it difficult to produce vaccine against trypanosomes?	1+2=3
8.	Write short note on any two (2) of the followings. i) Canker ii) Neosporosis iii) Culture media for protozoa		3×2=6

Chittagong Veterinary and Animal Sciences University
DVM Sixth Semester Final Examination-2023
Course Title: Dairy Science (Theory), Course Code: DSC-302
Full Marks: 70 **Time: 3 Hours**

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

SECTION -A

1.	a)	Define milk? Explain the nutritive value of milk.	**1+2=3**
	b)	Discuss the importance of dairy farming in the Chattogram region.	**4**
	c)	Enlist the factors responsible for the profitability of dairying in Bangladesh. Discuss any five factors those you think more important in Bangladesh context.	**4**
2.	a)	What are the main types of cheese?	**2**
	b)	Briefly describe the Mozzarella Cheese manufacture in a diagram. How can you estimate Cheese yield?	**3+1=4**
	c)	What are the bacterial cultures used in Cheese manufacture? Briefly describe it.	**1+3=4**
	d)	State the action of Rennet in Cheese manufacture.	**2**
3.	a)	What is Butter?	**2**
	b)	What are the various methods of manufacture of Butter? Describe which are suitable commercial Butter operation systems.	**4**
	c)	Briefly describe the physio-chemical properties of Ghee.	**3**
	d)	How can you proceed for assessment of methods to detect palm oil and/or coconut oil in ghee?	**3**
4.	a)	What is the difference between HTST and UHT milk pasteurization?	**3**
	b)	What equipment is typically used in HTST milk pasteurization? Briefly describe it.	**2+3=5**
	c)	What are the nutritional and sensory effects of homogenization on dairy products?	**4**

SECTION-B

5.	a)	What is the difference between flavoured milk and flavoured milk drink? Mention purposes of manufacturing flavoured, toned and reconstituted milk.	**2+2=4**
	b)	What are the factors to be considered for using fruit juices or syrups in milk shakes?	**3**
	c)	How are acidophilus and toned milk manufactured in the industry level?	**4**
6.	a)	Mention the desired characteristics of good quality sweet dahi.	**4**
	b)	Discuss the manufacturing procedure of Bogura sweet dahi.	**4**
	c)	Analyze the symbiotic relationship between *Streptococcus thermophilus* and *Lactobacillus bulgaricus* in the process of yoghurt manufacturing.	**4**
7.	a)	Define cream. Classify the cream with examples.	**1+1=2**
	b)	What are the various methods of manufacture of cream? Illustrate which are suitable commercial cream operation systems.	**2+2=4**
	c)	Briefly explain factors affecting the richness of cream.	**2**
	d)	What do you mean by standardization of milk? How many kg each of 31% cream and 3.2% fat containing milk will be required to make 300000 liters of a mixture testing BSTI standard of fat%?	**1+3=4**
8.		Write short notes (**Any 4**): a) LP for milk preservation, b) CIP of a bulk milk chiller, c) Ice-cream, d) History of dairy industrialization in Bangladesh, e) Acidity of milk and f) Milk pricing system.	**3x4=12**

Chattogram Veterinary and Animal Sciences University

DVM Sixth Semester Final Examination/2023

Course Title: Immunology and Serology (Theory)

Course Code: IMS - 302 (T)

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 are encouraged to be answered together.)

SECTION-A

1.	a)	Describe the contribution of five Nobel Laureate scientists in the field of immunology.	04
	b)	Categorize acquired immunity with examples.	02
	c)	Draw and level a typical IgG molecule with description.	03
2.	a)	Define epitope, paratope and hapten.	02
	b)	Enlist and describe different receptors for recognition of microbes by neutrophil and macrophage.	04
	c)	What do you mean by self MHC restriction? Why dendritic cells are called most efficient in Ag presentation?	1+2
3.	a)	What do you mean by active immunization? List vaccines available for cattle, goat, poultry and pet animals in Bangladesh.	1+4
	b)	Define APC in the context of Ag processing. Briefly explain how exogenous Ag are being processed and presented for potent immune response.	1+3

SECTION-B

4.	a)	How an intracellular Ag is presented to the cytotoxic T cells? Illustrate it's pathway with accurate diagram.	1+4
	b)	What is phagocytosis? Describe the microbial evasion of phagocytosis with examples.	1+2
5.	a)	Classify common allergens on the basis of port of entry.	02
	b)	Briefly explain type - III and type - IV hypersensitivity.	05
	c)	What is autoimmunity? Enlist five systemic autoimmune diseases.	1+1
6.	a)	What is complement? Write down the functions of complement.	1+1
	b)	Define cytokine. Briefly illustrate the function of TNF-α. IL-2 and IL-4.	1+4
	c)	What is monoclonal antibody? Write down the use of monoclonal antibody.	1+1

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 (5)** questions from each section. Use separate answer script for each section. Fractions of the questions are encouraged to be answered together.)

SECTION-A

1.	(a)	Enlist five (5) vesicle forming diseases of animals.	1
	(b)	Write down the pathology of FMD in epidermis and myocardium.	4
	(c)	What are the consequences of FMD in adult cattle?	2
2.	(a)	Write down two (2) significant gross and two (2) significant microscopic lesions of lumpy skin disease.	2
	(b)	Explain the modes of transmission of lumpy skin disease between individual animals and between farms.	2
	(c)	Sketch the pathogenesis bovine viral diarrhoea.	3
3.	(a)	Which disease of horse causes swelling of superficial lymphnodes? Write down its pathology.	1+2=3
	(b)	Write down the pathogenesis of strangles in horse.	4
4.	(a)	Enlist the characteristic lesions of black quarter in calves.	3
	(b)	Which bacterial diseases are predisposed by fascioliasis?	1
	(c)	Write down the pathogenesis and pathology of fascioliasis in adult cows.	6
5.	(a)	Which ~~vial~~ viral disease of goat cause lesions in both respiratory and digestive system?	1
	(b)	Write down the pathology of the disease mention in question 'a'.	4
	(c)	Briefly describe the gross lesions of canine parvoviral infection.	2
6.	(a)	What do you know about incubation period and inclusion body?	3
	(b)	Mention the factors which influence the pathogenesis of the infectious diseases.	4

SECTION-B

7.	(a)	Describe the pathogenesis of babesiosis in cattle. How will you differentiate the pathogenesis of babesiosis from that of anaplasmosis?	2+2=4
	(b)	How will you diagnose haemoparasitic diseases in a clinical pathology laboratory?	3
8.	(a)	What is prion? What types of lesions are produced in the brain of cattle by prion disease?	1+1=2
	(b)	Enlist the zoonotic viral diseases.	2
	(c)	Write short note on papillomatosis.	3
9.	(a)	Describe the pathogenesis and pathology of haemonchosis.	4
	(b)	Which parasitic disease may cause fatal colic in horses? Write down its pathogenesis.	1+2=3
10.	(a)	Sketch the pathogenesis of rabies in dogs.	4
	(b)	Write down the microscopic lesions of rabies.	2
	(c)	Which organ/tissues are usually get involved in canine distemper?	1
11.	(a)	Which fungal disease of cattle causes hyperkeratosis and parakeratosis? Write down its causes, pathogenesis and pathology.	1+3=4
	(b)	Write a short note on contagious bovine pleuropneumonia.	3
12.	(a)	Enlist five (5) septicemic diseases of animals.	1
	(b)	Briefly describe the role of toxins in pathogenic mechanism of anthrax.	3
	(c)	Write down the gross and microscopic lesions of listeriosis.	3

Chattogram Veterinary and Animal Sciences University
DVM Sixth Semester Final Examination-2023
Course Title: Livestock Economics & Marketing (Theory)
Course Code: LEM-302 (T)
Full Marks: 70; Time: 3 Hours

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

SECTION-A

1.	(a)	Define marketing and livestock marketing.	3
	(b)	Describe the importance of livestock marketing.	4
	(c)	Briefly discuss the approaches of livestock marketing.	4
2.	(a)	Define marketing cost and marketing margin.	3
	(b)	What are the factors that affect the cost of marketing of a livestock product?	5
	(c)	How can you reduce marketing cost of a livestock product? - Explain.	4
3.	(a)	Indicate marketing channel and cooperative marketing system?	3
	(b)	Briefly discuss the role and functions of the agent middlemen.	5
	(c)	What factors govern the choice of marketing channel?	4
4.	(a)	Define marketing mix and marketing efficiency with examples.	3
	(b)	Compare between monopoly and monopolistic competition market. Write the reasons for higher marketing cost.	2+3=5
	(c)	Distinguish between: i) Lagged margin and concurrent margin; ii) Whole selling and retailing	4

SECTION-B

5.	(a)	State demand and return on investment.	3
	(b)	Briefly discuss the factors that influence the demand of livestock product.	4
	(c)	Why does demand curve slope downward?	4
6.	(a)	Distinguish between bank and banking.	3
	(b)	Explain the functions of a central bank.	5
	(c)	Do you support that micro-credit programmes help to reduce poverty in Bangladesh? Justify your opinion.	4
7.	(a)	Define production and production function.	3
	(b)	Briefly discuss the Malthusian theory of population with criticisms.	5
	(c)	Distinguish between gross domestic product (GDP) and gross national product (GNP) in context of Bangladesh.	4
8.	(a)	Define utility with its classification.	3
	(b)	State and discuss the law of diminishing marginal utility with its limitations.	5
	(c)	Briefly discuss the economic impact of disease on animal farming system.	4

Chattogram Veterinary and Animal Sciences University

DVM Sixth Semester Final Examination 2023

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 numbers **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the questions are encouraged to be answered together.)

SECTION-A

1. a) Define SARA. Write down the causes, clinical signs, diagnosis and treatment of simple indigestion in cattle. 1+4=5
   b) Differentiate between ruminal acidosis and tympany. 4
   c) Write down the principles of diagnosis of alimentary tract dysfunction. 2

2. a) Define metabolic disease. What factors contribute to high incidence of metabolic diseases in high-yielding dairy cows? 1+3=4
   b) What are the clinical stages of hypocalcemia in dairy cows and how do their symptoms progress? 4
   c) Write down the line of treatment of milk fever and ketosis in dairy cows. 4

3. a) Define and classify anemia according to etiology. How can anemia be treated and prevented in a herd? 2+2=4
   b) What are the primary causes of esophageal obstruction in cattle? What measures should be taken for a cow suffering from choke with secondary bloat? 2+2=4
   c) Classify vitamins. How do vitamin A and vitamin E influence fertility and reproductive performance in animals? 1+3=4

4. a) What are the common clinical signs of nervous disorders in animals? Write down its principles of treatment. 1+3=4
   b) Write down the principles of treatment of respiratory insufficiencies. 4
   c) Write down the etiology and clinical signs of pyometra in a doe. 4

SECTION-B

5. a) Define rickets and osteomalacia. How would you treat a calf suffering from rickets? 1+2=3
   b) Differentiate following conditions in tabular form: 2×4=8
      i. Hyperkeratosis and parakeratosis
      ii. Myositis and myopathy

6. a) Distinguish between bacterial pneumonia and aspiration pneumonia. Write down the line of treatment of aspiration pneumonia in cattle. 2+2=4
   b) Write down the causes and treatment of rhinitis. 4
   c) Write down the diagnosis and treatment of hypovolemic shock in a cow. 4

7. a) Differentiate among glomerulonephritis, interstitial nephritis and pyelonephritis. 4
   b) Write down the clinical signs and treatment of cystitis. 3
   c) Define icterus. Show the difference between various types of icterus along with treatment. 1+4=5

8. Write short notes on (Any three): 3×4=12
   a) Twin lamb disease
   b) Fibrous osteodystrophy
   c) Diabetes in dog and cat
   d) Polioencephalomalacia