

CHATTOGRAM VETERINARY AND ANIMAL SCIENCES UNIVERSITY

DVM 3rd Year 2nd Semester Final Examination-2019

Subject: Livestock Economics and Marketing (Theory)

Course Title: LEM-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 must be answered together).

SECTION-A

1. a) Define livestock economics. Distinguish between micro-economics and macro-economics. 2
b) Write the basic differences between economics and epidemiology. 2
c) State and graphically explain the law of demand. 3
2. a) Define utility. Briefly discuss the law of diminishing marginal utility with its limitations. 5
b) Write the concept of consumer surplus with example. 2
3. a) Define elasticity of demand. What factors affect the livestock product demand in Bangladesh? 2
b) Distinguish between elastic and inelastic demand. 2
c) When per unit price of egg decreases from Tk. 8 to Tk.6, its quantity demand increases from 12 units to 16 units. Calculate price elasticity of demand and interpret the results. 3
4. a) Define market. Classify markets and state the comparison between perfect competitive and monopoly market. 3
b) Write the conditions of equilibrium and graphically show the equilibrium points at different situation under perfect competitive market. 2
c) Why in a short run period under perfect competitive market a producer operates his production having losses? 2
5. a) Define money. Classify money and write the importance of money. 2
b) Briefly discuss the functions of central bank. 3
c) Mention the sources of finance for a farm business. 2
6. Briefly explain the following concepts:
a) MRS and MRTS. 2
b) Average revenue and marginal revenue 2
c) Factors of production and production function 3

SECTION-B

7. a) Identify 4 pillars of marketing concept. Write the basic differences between marketing and shopping. 4
b) Discuss the scopes for marketing for the Vet graduates. 3
8. Explain 'Value' in marketing. Outline the reasons for the increase of livestock product demand in Bangladesh. 7
9. a) Define marketing channel. Categorise marketing channels and provide examples. 4
b) Suppose you are the Market Operation Manager of ACI Pharmaceuticals. Develop a marketing channel for the brand TRP (Tapioca Residue Pellet) a nutritional medicine for dairy cow. 3
10. a) Define marketing plan. Summarize the contents of a typical marketing plan. 4
b) What factors do you consider while choosing a marketing channel for a given product? 3
11. a) Describe the milk marketing systems in Bangladesh. 4
b) Mention five major problems in milk production and marketing along with probable measures for solutions. 3
12. Briefly explain the following concepts:
a) Marketing margin 2
b) Marketing Mix 2
c) Marketing efficiency 3

CHATTOGRAM VETERINARY AND ANIMAL SCIENCES UNIVERSITY

DVM 3rd Year 2nd Semester Final Examination-2019

Subject: General Medicine and Production Disease (Theory)

Course Title: GPD-302 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any 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 clinical and preventive veterinary medicine with their objectives. 5
b) Make a presumptive diagnosis and line of treatment of a bull with a history of excessive ingestion of ripen paddy. 6
2. a) Define bloat. Outline the clinical features and treatment of a cow weighing 300 Kg having frothy bloat. 5
b) Write down the cardinal sign of following conditions in ruminant 0.5×4
=2
i. Glomerulonephritis
ii. Vagus indigestion
iii. Abomasal displacement
iv. Hyperkeratosis and parakeratosis
c) How will you diagnose and treat a case of simple indigestion in a compound stomach animal? 5
3. a) What are the common signs of nervous disorders in cattle? 3
b) Write down the interpretations of different types of respiratory sounds, cough and nasal discharge. 4
c) Which trace element is necessary for synthesis of vitamin B₁₂? Briefly enumerate the aetiology, epidemiology and treatment of its deficiency in cattle. 5
4. a) Briefly describe principal manifestations of urinary tract dysfunctions. 4
b) What is urinalysis? What possible urinalysis could be done while diagnose an animal having urinary tract infection? 6
c) How will you differentiate myositis from myopathy? 2

SECTION-B

5. a) Contrast the clinical features of acid and alkali indigestion in ruminant. State the line of treatment of true colic with generic dose. 4
b) How can you diagnose and clinically manage anaemia in animal? 4
c) Briefly describe risk factors that influence causing following metabolic disorders 3
i) Azoturia
ii) Hypomagnesemic tetany in cow
iii) Diabetes in dog
6. a) Owners complaint that his horse came from race competition and had rest with full rations for couple of days. Next day suddenly observed lameness in hindquarter and back while started practice. 4
i) Diagnose the cause and describe the aetiology of development of that condition. 4
ii) Write down the line of treatment and prognosis of the disease you diagnosed. 2×2=4
b) Sketch differentiate diagnosis of following conditions:
i) Hypophosphatemia and bacillary haemoglobinuria.
ii) Lactation tetany and acute lead poisoning
7. a) Suggest treatment and advices for animal suffering from following disorders. 3×2=6
i) Ketosis in cow
ii) Jaundice in dog
iii) Encephalitis in goat
b) Write down the predisposing factors and line of possible treatment of urolithiasis in goat 6
8. Write short notes on any three (3) 4×3=12
a) Fibrous osteodystrophy
b) Dehydration
c) Peat scour
d) Downer's cow syndrome

CHATTOGRAM VETERINARY AND ANIMAL SCIENCES UNIVERSITY

DVM 3rd Year 2nd Semester Final Examination-2019

Subject: Immunology and Serology (Theory)

Course Title: IMS-302 (T)

Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer any two (2) from each section of which question number four (4) is compulsory. Use separate answer script for each section.)

SECTION-A

1. a) Enlist organs, cells and proteins of innate and adaptive immune responses. 3
b) Explain the importance of innate and adaptive immune system. 3
c) Write down the properties of a good antigen. 3
2. a) Illustrate the properties of cytokine with definition. 3
b) Define monoclonal antibodies. Write down the importance of monoclonal antibodies in disease diagnosis and research. 3
c) Define adjuvant. Why adjuvants are necessary for some vaccine antigens? 3
3. a) Differentiate allergy from anaphylaxis. 3
b) Explain the mechanism of type-I hypersensitivity. 3
c) What are the different types of vaccines? Write down the causes of vaccination failure. 3

Section B

4. a) Mention changes in endothelium and neutrophil before emigration of neutrophil from blood vessel at the time of phagocytosis process. 3
b) Explain the phagocytic process. 5
5. a) Differentiate between MHC class I from class II with neat diagram. 3
b) Summarize antigen processing pathway in a killed viral vaccine in mammalian host with neat diagram. 6
6. a) Differentiate among different immunoglobulin class in a tabular form. 5
b) Draw and label a typical IgG molecule with description. 4

(Figures in the right margin indicate full marks. Answer three (3) from each section of which question number 5 is compulsory. Use separate answer script for each section.)

SECTION-A

- | | | | |
|----|----|--|-------------|
| 1. | a) | Enumerate five (5) protozoa having sexual and asexual reproduction. | 2 |
| | b) | Write the benefits of cysts formation of a protozoa. | 2 |
| | c) | Briefly describe the mode of transmission of protozoa with example. | 2 |
| 2. | a) | Illustrate the biology of Stercorarian and Salivarian group of Trypanosomes. | 3 |
| | b) | Give an outline on the morphology of Trypanosoma and Entamoeba. | 2 |
| | c) | Enlist the protozoa which causes diarrhea in calves. | 1 |
| 3. | a) | Define zoonosis. Illustrate the sources and methods of transmission of protozoal zoonotic disease. | 3 |
| | b) | List the five-water borne zoonotic protozoa. How will you control the zoonotic protozoan diseases? | 3 |
| 4. | a) | Write short notes on: (any two) | 2.5×2
=5 |
| | | i. Surra in mare | |
| | | ii. Caprine anaplasmosis | |
| | | iii. Hemoproteosis | |
| | | iv. Blackhead disease | |
| | b) | What do you mean by inverse age resistance? | 1 |

Section B

- | | | | |
|----|----|---|-------------|
| 5. | a) | Mention the name of causal agent(s) and vectors of the following disease. (any six) | 0.5×6
=3 |
| | | i. Red water fever in bull | |
| | | ii. Dumdum fever in fox | |
| | | iii. Corridor disease in cattle | |
| | | iv. Theileriosis in camel | |
| | | v. East coast fever in cattle | |
| | | vi. Chagas disease in mare | |
| | | vii. Oriental sore in dog | |
| | | viii. Tertian malaria in Chimpanzee | |
| | b) | Illustrate the epidemiological factors and pathogenesis of canine babesiosis. | 2 |
| 6. | a) | Describe the pathogenesis of histomoniasis in turkey. | 2 |
| | b) | Explain vertical and horizontal transmission of <i>Neospora caninum</i> . | 2 |
| | c) | How can you diagnose the following protozoal infections in the laboratory (any two)? | 2 |
| | | i. <i>Trypanosoma evansi</i> | |
| | | ii. <i>Balantidium coli</i> | |
| | | iii. <i>Eimeria tenella</i> | |
| 7. | a) | Draw and label a typical sporulated oocyst of Eimeria spp. Enlist the coccidian species of poultry in Bangladesh. | 3 |
| | b) | Enlist the blood protozoa of birds. Illustrate the pathogenic significance of Leucocytozoonosis in ducks. | 2 |
| | c) | 'Coccidiosis is a self-limiting disease' -Justify the statement. | 1 |
| 8. | a) | 'Dog is the reservoir of visceral leishmaniasis'—Justify. | 2 |
| | b) | Explain the parasitic effects of <i>Trichomonas fetus</i> in cow. | 2 |
| | c) | Sketch the life cycle of <i>Toxoplasma gondii</i> . | 2 |

CHATTOGRAM VETERINARY AND ANIMAL SCIENCES UNIVERSITY

DVM 3rd Year 2nd Semester Final Examination-2019

Subject: Toxicology (Theory)

Course Title: TOX-302 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any 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) Classify insecticide with examples. 2
b) Write down the clinical signs, mode of action, diagnosis and treatment of organophosphorus poisoning in cattle. Why the antidote should be given again after 8-12 hours in this case? 7
c) Why the use of DDT is banned in Bangladesh? 2
2. a) Enlist the plants causing poisoning in livestock in Bangladesh. 3
b) Write down the clinical signs, mode of action and treatment of nitrate and nitrite poisoning. 5
c) How will you diagnose and treat cyanide poisoning? 4
3. a) Write down the clinical signs and treatment of Oleander plant. 3
b) A bull shows dry mouth, frequent urination, and pupil dilated with photophobia. What is your diagnosis and make a prescription for the patient? 3
c) In which plant poisoning the clinical signs are like that of tetanus? Write down its clinical signs. 3
d) Relate universal antidote with specific antidote and write down the mode of action on universal antidote in cattle. 3
4. a) Differentiate between poisonous and non-poisonous snakes based on their bites and anatomical structure. How will you manage a patient of King Cobra bite poisoning? 4
b) Write down the toxicokinetic, diagnosis and prevention of aflatoxicosis in layer. 4
c) Differentiate toxicokinetic and toxicodynamic with pharmacokinetic and pharmacodynamic. 4

SECTION-B

5. a) Define toxin, poison, venom and antisera. How do toxin and poison damage cell or organ in the body? How does generally detoxification process occur in poisoning case? 4
b) What are the diagnostic spot tests in the field for nitrate, cyanide and oxalate poisoning? 4
c) Differentiate among food, feed and drug toxicity. 3
6. a) Differentiate between organophosphorus and organo-carbamate poisoning in livestock. Write down the factors, mode of action of organochlorine toxicity in livestock with specific treatment. 4
b) Enumerate the name of rodenticides available in Bangladesh. How can you diagnose and treat ANTU and Red Squill poisoning? 4
c) Make a list of poison which cause death immediately in livestock and human with treatment. 4
7. a) What do you understand about emergency kit? What types of equipment, parenteral medications and oral medication include in the emergency kit? 4
b) Write down the general diagnostic procedure in case of poisonous case from field to laboratory. 4
c) 'Sodium bi carbonate is contraindicated in urea poisoning' Justify the statement with line of treatment. 4
8. Write short notes on (any four) 4×3
=12
a) Drug toxicity
b) Salt poisoning in poultry
c) Food hazards
d) Ammonia poisoning in broiler
e) Urea poisoning in cow

CHATTOGRAM VETERINARY AND ANIMAL SCIENCES UNIVERSITY

DVM 3rd Year 2nd Semester Final Examination-2019

Subject: Pathology of Infectious Disease (Theory)

Course Title: 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 must be answered together).

SECTION-A

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|----|------|---|------------|
| 1. | a) | Write down the transmission, pathogenesis and pathology of peste des petits ruminants in a goat. | 5 |
| | b) | What is 'Negri body' and 'Babes nodule'? | 2 |
| 2. | a) | Enlist the viral diseases where the main gross lesion is vesicle formation over epidermis and mucosa. | 2 |
| | b) | Show the pathogenesis of FMD in a sketch form. Mention some important microscopic lesions of FMD. | 5 |
| 3. | a) | List the important Clostridial disease including their species. | 2 |
| | b) | How does fascioliasis facilitate the pathogenesis of black disease? | 3 |
| | c) | Write short note on enterotoxaemia. | 2 |
| 4. | a) | Enlist the fungal diseases commonly seen in man and animals. | 2 |
| | b) | Briefly describe the pathogenesis and pathology of ringworm. | 5 |
| 5. | a) | Name the causative parasite of lungworm infection in cattle. Write down the lesions of lung worm infection in lung. | 3 |
| | b) | What causes lumpy skin disease? State the pathology of this disease. | 4 |
| 6. | | Write short notes on (any two): | 3.5x
=7 |
| | i) | Bovine spongiform encephalopathy. | |
| | ii) | Pink eye | |
| | iii) | Cow pox | |

SECTION-B

- | | | | |
|-----|----|---|------------|
| 7. | a) | Summarize the mechanism of disease production by different pathogenic bacteria. | 5 |
| | b) | What is miliary and meningeal tuberculosis? | 2 |
| 8. | a) | What is the relationship between bovine viral diarrhoea and mucosal disease? | 3 |
| | b) | Write a short note on Rota viral diarrhoea. | 4 |
| 9. | a) | Which bacterial disease in bovine is characterized by icterus and haemoglobinuria? Briefly describe the pathogenesis of this disease. | 4 |
| | b) | Enlist the significant gross lesions of black quarter. | 3 |
| 10. | a) | Write down the etiology, transmission and pathology of humpsores. | 4 |
| | b) | Discuss the causes and pathogenesis of intestinal coccidiosis in cattle. | 3 |
| 11. | a) | Enlist the pathology of paratuberculosis. | 4 |
| | b) | State the lesions observed in respiratory system of horse in case of strangles and glanders. | 3 |
| 12. | | Differentiate between: (any two) | 3.5x
=7 |
| | a) | Babesiosis and anaplasmosis | |
| | b) | Canine distemper and infectious canine hepatitis | |
| | c) | Rabies and pseudorabies | |

CHATTOGRAM VETERINARY AND ANIMAL SCIENCES UNIVERSITY

DVM 3rd Year 2nd Semester Final Examination-2019

Subject: General Surgery, Lameness and Soundness (Theory)

Course Title: GLS-302 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any 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) What are the pre-operative considerations for the major abdominal surgery in Dobermann dog? 3
 - b) Classify wound with examples. Mention the characteristics of punctured and penetrating wounds. 4
 - c) Briefly describe the stages of healing of surgical wound. 4

2.
 - a) Define vices and blemishes. 2
 - b) Describe the head and leg markings in horses. 5
 - c) Write a soundness certificate for a gray color mare of 6 years old, 265 Kg body weight and 15 hands height having star on the head and suffering from hip dysplasia. 5

3.
 - a) What is an abscess? How will you convert an immature abscess to a mature abscess? 4
 - b) Describe the clinical signs, diagnosis and treatment of fistula and sinuses. 4
 - c) Classify burn. Mention the clinical signs and treatment of third degree burn in a calf. 4

4. Write short notes on following: 4×3 =12
 - a) Name and applications of different haemostasis.
 - b) Ring bones
 - c) Gid in a doe
 - d) Tail gangrene in a cow

SECTION-B

5.
 - a) How will you diagnose degenerative joint disease (DJD) in dogs? Write down the line of treatment for DJD in dogs. 5
 - b) A dog was showing unilateral non-weight bearing lameness. You found left hind limb was shorter than right ones, greater trochanter was dorsal to an imaginary line drawn from crest of ilium to tuber ischii and radiograph revealed displacement of the head of the femur from acetabulum. What is your diagnosis and how will you treat this condition? 6

6.
 - a) Define fracture and classify according to the direction of the fracture line. 3
 - b) What are the principles of treatment of fracture? Mention different reduction technique in fracture. 6
 - c) Briefly mention the factors those influence the rate of union of fracture. 3

7.
 - a) List the common diseases and disorders causing lameness in dairy cattle in Bangladesh. 2
 - b) How will you diagnose and treat upward patellar fixation in a cow? 5
 - c) An owner complained sudden onset of lameness of his cow. You found swelling of the whole foot, up to the fetlock and also necrotic skin between the claws with foul odour. What is your diagnosis and how will you treat the disease? 5

8. Write short notes on: 4×3 =12
 - a) Chronic laminitis in cattle
 - b) Dehorning in cattle
 - c) Sand crack
 - d) Procedure of lameness examination

CHATTOGRAM VETERINARY AND ANIMAL SCIENCES UNIVERSITY

DVM 3rd Year 2nd Semester Final Examination-2019

Subject: Dairy Science (Theory)

Course Title: DSC-302 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any 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 dairy science. Explain the scope of dairy science in veterinary science. | 3 |
| | b) | List the factors affecting quality and quantity of milk production. Discuss four (4) most important factors in context of Bangladesh. | 6 |
| | c) | Enlist the factors associated with the profitability of dairy farming business at Chattogram. | 2 |
| 2. | a) | What are the differences among dahi, curd and yoghurt? | 3 |
| | b) | Briefly discuss the manufacturing procedure of commercial yoghurt. | 4 |
| | c) | Illustrate the common defects of dahi with their possible causes of remedies. | 5 |
| 3. | a) | What do you mean by 'Pasteurization of milk'? | 2 |
| | b) | Briefly describe the HTST method of Pasteurization. | 8 |
| | c) | Mention the BSTI standard for market milk. | 2 |
| 4. | a) | Mention the common steps of cheese making. | 3 |
| | b) | Classify rennet with examples. Mention the properties of rennet. | 3 |
| | c) | Show the manufacturing procedure of 'Swiss cheese' by a flow diagram. | 6 |

SECTION-B

- | | | | |
|----|----|---|------------|
| 5. | a) | What are the importances of chilling milk in industry level? | 2 |
| | b) | Discuss the routine activities in a milk chilling plant. | 7 |
| | c) | Classify CIP chemicals with examples. | 2 |
| 6. | a) | Mention the principles of cream separation and classify cream. | 4 |
| | b) | Write the centrifugal method of cream separation. | 4 |
| | c) | How many Kg each of 30% cream and 3.2% milk will be required to make 15000 Kg of a mixture testing BSTI standard. | 4 |
| 7. | a) | Write the role of different components in ice cream. | 3 |
| | b) | Explain the freezing procedure of ice cream. | 5 |
| | c) | List the texture defects, causes and remedies of ice cream. | 4 |
| 8. | | Write short notes (any four) | 3×4
=12 |
| | a) | Rosogolla | |
| | b) | Ghee | |
| | c) | Hygienic milk production | |
| | d) | Homogenization | |
| | e) | Spray-drying method for FCMP | |