

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 2nd Semester Final Examination 2018

Subject: General Medicine and Production Diseases (Theory)

Course Title: GMD-302 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any **three (3)** questions from each section, question number **One (1)** and **five (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 factors responsible to modify the activity of rumen microflora? Enlist the alimentary tract disease of ruminants. 3.0
- b) Write down the causal agents, clinical findings, diagnosis and treatment of free gas bloat in cattle. 4.0
- c) Define urticaria and impetigo. Write down the common signs and treatment of seborrheic dermatitis in dogs. 4.0
2. a) Define sequelae. State the sequelae may arise after the apparent recovery from the following diseases; I. Ruminal acidosis II. Parturient paresis 2+2=4
- b) A cow weighing 300 kg brought to SAQTVH, CVASU with the history of calving, gradual decrease of appetite and milk production. The animal was vigorously licking skin and inanimate objects. Examination revealed all vital signs normal, though the animal was depressed. Characteristic odour was detected in urine and milk. Diagnose the disease and suggest treatment for it. 4.0
- c) Define acidosis. Compose a line of treatment of ruminal acidosis. How will you calculate the amount of NaHCO₃ needed for a 100 kg cow affected with acidosis? 4.0
3. Differentiate between the following conditions: I. Haemoptysis vs hematemesis II. Simple vs acidic indigestion III. Diabetes mellitus vs diabetes insipidus IV. Glomerulo vs interstitial nephritis 4×3=12
4. a) What is milk fever? Write down the clinical findings and risk factors of milk fever. 4.0
- b) What will be the line of treatment of milk fever? 4.0
- c) What is swayback disease? Describe the diagnosis and treatment of Copper deficiency in cows. 4.0

SECTION B

5. a) Define gastric ulcer. Summarize the clinical findings, diagnosis and treatment of peptic ulcer in dogs. 4.0
- b) What are the common respiratory disorders and their common causes in farm animals? Enlist five different therapeutic agents used to treat respiratory disorders. 3.0
- c) Define rickets. Name the factors responsible for rickets in lamb. Distinguish rickets from fibrous osteodystrophy in ruminants. 4.0
6. a) Contrast the clinical features of spasmodic and tympanic colic in horses. State the line of treatment of true colic with generic dose of the drugs used. 4.0
- b) Define and classify jaundice. Write down the causes of prehepatic jaundice in farm animals. Outline the treatment, protocol of a patient having jaundice. 4.0
- c) Why feeding of bran should be stopped in fibrous osteodystrophy in goats? What are the biochemical parameters you need to analyse and why? 4.0
7. a) What do you mean by metabolic and production disease? Mention the synonyms of hypocalcaemia, hypomagnesemia and hypoglycaemia. 3.0
- b) Distinguish deficiency and metabolic diseases of ruminants. Write down the significant manifestation and suggests treatment of animals suffering from following deficiencies: I. Zinc II. Vitamin A III. Vitamin E and Selenium 3×3=9
8. Write short notes on I. laminitis, II. peat scour, III. polioencephalomalacia, IV. anaemia 4×3=12

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 2nd Semester Final Examination 2018

Subject: Toxicology (Theory)

Course Title: 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 No. 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 do you mean by toxic dose and median lethal dose? 2.0
b) What would be the line of treatment after bee venom intoxication? 2.0
c) Classify poison on the basis of mode of action with examples. 3.0
d) Suppose, as a veterinarian you have been asked to investigate a case of death of cattle due to suspected poisoning on Thursday afternoon. How will you collect and dispatch the sample to central disease investigation laboratory? 4.0
2. a) Differentiate between drug and poison. 2.0
b) Draw a diagram showing the effect of lead on heme synthesis. 2.0
c) 'Sodium bi-carbonate is contraindicated in urea poisoning' -Justify the statement with appropriate line of treatment. 4.0
d) 'Poisoned animal drawn in its own fluid"- discuss the statement with the possible treatment. 4.0
3. a) Mention toxic substances which you suspect on deep tube well water. Explain about toxic dose, diagnosis and treatment of acute arsenic poisoning on the context to Bangladesh. 5.0
b) What are the factors involved with nitrate poisoning in ruminants? How will you diagnose and treat the case? 4.0
c) Discuss mechanism of action, clinical symptoms and treatment of common salt poisoning in a goat. 3.0
4. a) Comparatively justify the parathion and carbaryl effects according to mode of action and treatment. 4.0
b) Two (2) rats were died and found in drain. You noticed blood come from mouth of one rat and white foam from mouth of another. Criticize the differences about the death of both rats 4.0
c) Enlist the poisonous substances of snake venom. Describe the management of venomous snakes crunch. 4.0

SECTION B

5. a) How does 'gastric lavage' work against poison in the body? 2.0
b) Cite the name of toxicants that affect the blood of animal and explain the sources, mechanism of action and treatment of cyanide poisoning. 5.0
c) A goat shows dryness of mouth and throat with dysphagia for last eight hours. There are also found somewhat rise in body temperature which fallen down, photophobia, dilated pupil with staggering gait and incoordination. If it is a poisonous case, diagnose the above condition with appropriate mode of action and write treatment. 4.0
6. a) Why plant poisoning is significant in veterinary practice? Enlist plants teratogenic effects in livestock. 4.0
b) Discuss about two poisons causing lameness in domesticated animals in northern part of Bangladesh with their mechanism of commencement. 4.0
c) How copper and molybdenum intoxications are inter-related with each other? What is the feasible way to treat the both cases? 4.0
7. a) A very popular feed UMS block is used for beef fattening. How urea creates toxicity to the livestock? What will be the clinical signs and precise correction for the case? 5.0
b) Point out the factors linked with mycotoxicosis? How will you diagnose and manage aflatoxicosis in poultry? 4.0
c) Write down the toxicity caused by Penicillin, Quinolone and Ionophores used in livestock and poultry. 3.0
8. Write short notes any four 4×3 =12
a) Circumstantial evidence of poisoning
b) Selenium poisoning
c) Puffer fish intoxication
d) Radiation hazard
e) Botulism

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 2nd Semester Final Examination-2018
Course: Immunology and Serology
Course Code: IMS-302
Full Marks: 35; Time: 2 Hours

(Figures in the right margin indicate full marks. Answer **any Two (2) questions** from each section of which question no 1 is compulsory. Use separate answer script for each section.)

SECTION-A

- | | | | |
|----|----|---|-----|
| 1. | a) | Discuss the contribution of nobel laureate scientists in the field of immunology | 4.0 |
| | b) | Illustrate mechanism of immune response in vivo in mammals. | 4.0 |
| 2. | a) | Summarize attenuation process of microorganism in production of vaccine. | 4.0 |
| | b) | Categorize acquired immunity with example. | 2.0 |
| | c) | Contrast live vaccine from killed vaccine. | 3.0 |
| 3. | a) | Elaborate APCs. List the APC with their specific role in immune response | 6.0 |
| | b) | Describe the mechanism of antigen processing and presentation via MHC class I and II molecule to T lymphocyte | 3.0 |

SECTION-B

- | | | | |
|----|----|--|-----|
| 4. | a) | What are the essences of classification of hypersensitivity? | 2.0 |
| | b) | Summarize mechanism of type II and type IV hypersensitivity? | 7.0 |
| 5. | a) | Which are primary and secondary lymphoid organs, and what are their functions? | 5.0 |
| | b) | Describe the structure of an antibody molecule. | 4.0 |
| 6. | a. | List the biological properties of cytokine. | 3.0 |
| | b. | Tell function of one cytokine in role of innate and adaptive immunity respectively | 6.0 |

Chattogram Veterinary and Animal Sciences U
DVM 3rd year 2nd Semester Final Examination 2018
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)** questions from each section, of which question number four (4) is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

- | | | | |
|----|----|--|-----|
| 1. | a) | Summarize contribution of five different Nobel laureate scientists in the field of immunology. | 3.0 |
| | b) | What is complement? Explain classical pathway of complement activation. | 3.0 |
| | c) | Differentiate MHC class I from MHC class II with figure. | 3.0 |
| 2. | a) | Draw and label a typical antibody structure. Distinguish IgG from IgM. | 4.0 |
| | b) | How do you differentiate innate immunity from adaptive immunity? | 3.0 |
| | c) | Write down the role of the following cell (any two) in immune defence.
I. Macrophage II. Effector T cell III. NK cell IV. Memory B cell | 2.0 |
| 3. | a) | Classify acquired immunity with examples. | 3.0 |
| | b) | Discuss neutrophil emigration during phagocytic process. | 6.0 |

SECTION B

- | | | | |
|----|----|--|-----|
| 4. | a) | What is monoclonal antibody? State the purpose of production of monoclonal antibody.
Explain the procedure of monoclonal antibody production. | 4.0 |
| | b) | What is antigen processing? Illustrate the intracellular pathway of antigen processing. | 4.0 |
| 5. | a) | What is active immunization? Describe the process of attenuation of a virus to produce vaccine. | 4.0 |
| | b) | Explain the reasons for vaccine failure. | 3.0 |
| | c) | What is pattern recognition receptor? List TLRs with their binding ligands. | 2.0 |
| 6. | a) | What is the basis of classification of hypersensitivity? | 2.0 |
| | b) | Classify allergen on the basis of port of entry. | 2.0 |
| | c) | Explain the mechanism of type IV hypersensitivity. | 5.0 |

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 2nd Semester Final Examination 2018

Subject: Pathology of Infectious Diseases (Theory)

Course Title: 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 questions must be answered together)

SECTION-A

1. a) List the name of four epitheliotropic virus. 2.0
b) Briefly describe the mode of transmission and pathology of foot and mouth disease. 5.0
2. a) How can you differentiate between the followings: I. Glanders from Strangles II. Woody tongue from Lumpy jaw 3.5×
2=7
3. a) Mention the pathogenesis and pathology of rabies. 4.0
b) How can you diagnose rabies? 3.0
4. a) What is prion? What types of lesions are produced in the brain of cattle by prion? 3.0
b) Name five (5) diseases produced by prion in man and animals. 1.0
c) Write down the microscopic lesions of mad cow disease. 3.0
5. a) Compare the transmission and pathogenesis of tetanus and botulism. 3.0
b) Write down the gross and microscopic lesions of black quarter. 4.0
6. a) How bottle jaw is produced in case of fascioliasis and haemonchosis? 3.0
b) Which nematode may cause death of horse? Write down its pathogenesis. 3.0
c) Name one trematode and one nematode that may cause jaundice in cattle. 1.0

SECTION B

7. a) What do you mean by incubation period and inclusion body? 3.0
b) Mention the factors which influence the pathogenesis of infectious disease 4.0
8. a) In which bacterial disease there is found micro-abscess in the brain? Write down its pathogenesis and pathology. 5.0
b) What is 'marbled lung'? 2.0
9. a) Which viral disease may produce wide spread lesions in dogs? Write down its pathogenesis and pathology. 5.0
b) Write down the lesions of canine parvo viral infection. 2.0
10. a) Write down the pathogenesis and pathology of anthrax. 4.0
b) How can you diagnose anthrax in field condition? 2.0
c) Anthrax has public health significance-- justify 1.0
11. a) In which fungal disease there is found both the parakeratosis and hyperkeratosis? Write down its pathogenesis and pathology in calves. 5.0
b) Write short notes on rhinosporidiosis. 2.0
12. a) Describe the pathogenesis of bovine viral diarrhoea. 5.0
b) Write down the lesions of rota viral diarrhoea. 2.0

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 2nd Semester Final Examination 2018

Subject: Protozoology (Theory)

Course Title: PRT-302 (T)

Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer three (3) questions from each section, question no. five (5) is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) How do the following protozoa undergo movement in host body? 0.5×
I. *Eimeria* spp II. *Balantidium* spp. III. *Histomonas meleagridis* IV. *Entamoeba histolytica* 4=2
b) Classify protozoa according to the mode of their life cycle with example. 2.0
c) Differentiate trophozoite from cyst and eukaryotic from prokaryotic cell. 2.0
2. a) Why protozoa is cultured in media? Enlist five (5) media with their specific protozoa. 2.0
b) Illustrate the role of cat and sheep in the transmission of toxoplasmosis. 2.0
c) Enumerate the protozoa that cause abortion in cow. How will you treat a bull and cow when infected with *Tritrichomonas foetus*. 2.0
3. a) Name the species of coccidia recorded in chicken, quail, duck, goose and turkey. 3.0
b) Draw and label the differential morphological characters of the oocysts of protozoa belonging the genera *Eimeria*, *Isospora* and *Cryptosporidium*. 3.0
4. a) Mention the species of *Babesia* those causes babesiosis in dog, cattle, goat and horse. 2.0
b) Enumerate the epidemiological factors and pathogenesis of canine babesiosis. 2.0
c) Illustrate the morphology and life cycle of *Theileria parva* in cattle. 2.0

SECTION B

5. a) Compare the morphological and clinical observation of babesiosis and anaplasmosis. 2.0
b) Write down the name of causal agent and vectors of the following diseases: I. Theileriosis in camel, II. Black head disease turkey III. Tertian malaria, IV. Corridor disease in cattle. V. Dourine in mare VI. Coccidiosis in rabbit 0.5×
6=3
6. a) Illustrate the developmental stages of Trypanosomes. 'It is difficult to produce vaccine against Trypanosome' --explain 3.0
b) Write the down the confirmatory diagnosis of the following infections: I. *Entamoeba histolytica* II. *Toxoplasma gondii* III. *Theileria parva* IV. *Histomonas meleagridis* 3.0
7. a) List the hemoprotozoa of livestock and bird. 2.0
b) Describe the pathogenesis and pathology of cecal coccidiosis in chicken. 2.0
c) Define coccidiostat. Mention possible control strategies of chicken coccidiosis. 2.0
8. Write short notes on the following: (any three) 3×2
i. Calf *Balantidium* II. Surra III. Kala-Aazar IV. Winter coccidiosis =6

Chittagong Veterinary and Animal Sciences University

DVM 3rd year 2nd Semester Final Examination 2018

Subject: Dairy Science (Theory)

Course Title: 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 No. **1** and **5** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) State the general consideration in selecting breed for a dairy farm 4.0
b) Discuss the five important factors which are responsible for the profitability of dairying in Bangladesh 7.0
2. a) What is ghee? Mention the process of manufacturing ghee in a dairy plant. 2.0
b) State the industrial ghee making methods in Bangladesh 7.0
c) State the defects and its preventive measures of burnt flavour, rancid flavour and greasy texture in ghee. 3.0
3. a) Define milk and market milk. 2.0
b) Show the detail composition of milk 3.0
c) How a 'primary milk producing society' is formed? Who is the father of white revolution in Bangladesh and why is he called so? 5.0
d) Discuss the importance of milk chilling in Bangladesh. 2.0
4. a) What do you mean by dairy butter, creamery butter, fresh butter and cold storage butter? 4.0
b) State how butter milk is separated from cream during butter making 4.0
c) Show the manufacturing process of sweet butter through a flow diagram 4.0

SECTION B

5. a) Discuss the factors which can influence the quality and quantity of milk production. 7.5
b) Show the manufacturing process UHT market milk by a flow diagram. 3.5
6. a) Define cream and classify it 3.0
b) What are the possible causes of more fat losses through skim milk during cream separation? 5.0
c) Enlist the famous indigenous dairy product of Bangladesh with their origin 4.0
7. a) Mention the principles of cheese making. 3.0
b) State the manufacturing process of Cheddar cheese 9.0
- 8 Write short note on any four of the following: 4X3=12
 - a) Stoke's law
 - b) CIP of LTLT pasteuriser
 - c) Rennet
 - d) Freezing of ice-cream mix
 - e) Dhaka cheese
 - f) Acidophilus milk

Chittagong Veterinary and Animal Sciences University

DVM 3rd year 2nd Semester Final Examination 2018

Subject: Dairy Science (Theory)

Course Title: 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 No. **1** and **5** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) State the general consideration in selecting breed for a dairy farm 4.0
b) Discuss the five important factors which are responsible for the profitability of dairying in Bangladesh 7.0
2. a) What is ghee? Mention the process of manufacturing ghee in a dairy plant. 2.0
b) State the industrial ghee making methods in Bangladesh 7.0
c) State the defects and its preventive measures of burnt flavour, rancid flavour and greasy texture in ghee. 3.0
3. a) Define milk and market milk. 2.0
b) Show the detail composition of milk 3.0
c) How a 'primary milk producing society' is formed? Who is the father of white revolution in Bangladesh and why is he called so? 5.0
d) Discuss the importance of milk chilling in Bangladesh. 2.0
4. a) What do you mean by dairy butter, creamery butter, fresh butter and cold storage butter? 4.0
b) State how butter milk is separated from cream during butter making 4.0
c) Show the manufacturing process of sweet butter through a flow diagram 4.0

SECTION B

5. a) Discuss the factors which can influence the quality and quantity of milk production. 7.5
b) Show the manufacturing process UHT market milk by a flow diagram. 3.5
6. a) Define cream and classify it 3.0
b) What are the possible causes of more fat losses through skim milk during cream separation? 5.0
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b) State the manufacturing process of Cheddar cheese 9.0
- 8 Write short note on any four of the following: 4X3=12
 - a) Stoke's law
 - b) CIP of LTLT pasteuriser
 - c) Rennet
 - d) Freezing of ice-cream mix
 - e) Dhaka cheese
 - f) Acidophilus milk

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 2nd Semester Final Examination 2018

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 **Four (4)** questions from each section, where question No. **1** and **6** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Define the livestock economics. What is the necessity of studying livestock economics as a student of veterinary medicine? 4
b) Briefly discuss the economic impact of diseases in livestock production system. 4
2. a) Define production and production function. Write about the concepts of (i) MRS & MRTS, (ii) ISO-quant & budget line. 3
b) Discuss the break-even analysis graphically. 4
c) Which state at production is called operation stage. 2
3. a) Define national income. Distinguish between GDP, GNP and NNP. 3
b) Discuss the commonly used methods of calculating national income in Bangladesh. 4
c) Write the limitations of estimating national income. 2
4. a) Define project. Distinguish between (i) compounding and discounting, (ii) economic analysis and financial analysis. 2
b) Discuss the discounted project appraisal techniques. 4
c) Briefly discuss the functions of central bank. 3
5. Briefly explain the following concepts:
a) Total utility and marginal utility 3
b) Supply and supply function 2
c) Average cost and marginal cost and 2
d) Financial analysis and economic analysis of livestock project. 2

SECTION B

6. a) Explain the marketing process. 3
b) Identify 4 Pillars of marketing concept. 3
c) Give examples of need, want and demand. 2
7. a) "Customer is the king in the kingdom of marketing"- Do you agree? Justify your answer. 3
b) Suppose you are going to develop marketing strategies for Bengal Meat. For the purpose develop a hypothetical SWOT analysis. 3
c) Develop the 4Ps of a dairy farm. 3
8. a) What do you mean by marketing functions? 2
b) Distinguish between standardization and grading. 4
c) Discuss the importance of grading in egg marketing. 3
9. a) Define marketing channel. 2
b) Classify marketing channels and provide examples. 3
c) Suppose you are the Market Operation Manager of ACI Pharmaceuticals. Develop a marketing chain for a selected vaccine for dairy cow. 4
10. a) You are a vet graduate. What are the scopes where you can use your marketing knowledge? 3
b) "As an entrepreneur, we only need to be production focused. Market focus is less important as higher production is the key to success." Do you agree? Justify your answer. 3
c) Define livestock and livestock marketing. 3

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 2nd Semester Final Examination 2018

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 Three (3) questions from each section, where question No. 1 and 5 are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) How the knowledge of general surgery, lameness and soundness will help you to do a surgical operation? 2.0
b) Define surgery. 1.0
c) What are the allied sciences help you to become a good surgeon and how? 2.0
d) State the scope of surgery. 2.0
e) Briefly explain the principles of modern surgery. 4.0
2. a) Enlist the surgical instruments in a common surgical pack. 2.0
b) Systemically explain the surgeons and patient's preparation during surgery. 3.0
c) How will you control the bleeding in the following situation? I. Horn avulsion, II. Small and large vessel cut during rumenotomy, III. Tumor excision, IV. Internal bleeding 4.0
d) Evaluate the line of treatment of acute inflammation. 3.0
3. a) Differentiate the following conditions based on clinical findings: 6×2
I. Degloving wound and shearing injury II. Contusion and abrasion III. Benign and malignant tumor IV. Hygroma and subcutaneous cyst. V. Abscess and hematoma VI. Punctured and perforating wound =12
4. a) Mention the line of treatment of the following surgical affections: I. Yoke gall II. Paralysis III. Ulcer IV. burn 4×3
=12

SECTION B

5. a) Define lameness. 1.0
b) Explain the economic aspects of lameness of farm animals. 2.0
c) Mention ten (10) different disease or disease conditions you usually observe at SAQTVH CVASU associated with lameness 2.0
d) Evaluate the breeding soundness in a milch cow and a bull. 6.0
6. a) What do you mean by fracture? 1.0
b) Classify fracture according to fracture line and severity of tissue damage. 2.0
c) What are the factors influence bone healing? 3.0
d) Differentiate between bone and wound healing. 3.0
e) What are the principles of fracture treatment and methods of reduction techniques? 3.0
7. a) How will you manage upward patellar fixation in a cow? 6.0
b) Classify ring bone in horses. 1.0
c) Describe in details about sandcrack in horses 5.0
8. Write short notes on: I. Z-tenotomy II. Keratoma in horses III. Disbudding in calves IV. Ranula in dogs 4×3
=12