

Chattogram Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology
MS in Pharmacology Final Examination 2023

Semester: July-December

Course Title: Toxicology of Drugs and Chemical Residues (Theory)

Course Code: TCD-602

Total marks: 40, Time: 2 hours

(Figures in the right indicate full marks. Answer any FOUR (4) questions).

- 1 a. What is drug overdose? Write down the impact of drugs overdose in veterinary practice along with public health significance. 5
- b. What measures should be taken in case of controlling hazard impact of drugs? 5
- 2 a. What is margin of safety of drugs? What steps should be taken during the monitoring and detection of antibiotic residues? 5
- b. List in a tabular format about drug toxicity, side effects and contraindication of cephalosporin, cotrimazole, ciprofloxacin and azithromycin. 5
- 3 a. Do you think occupational hazards in veterinary practice is neglected issue? What are the deleterious effect of physical, psychological, and chemical hazards? 5
- b. Define bio-monitoring. Write down the process of bio-monitoring. 5
- 4 a. Describe the pesticide pollution and enlist the different sorts of pesticides that have impact on human health. 5
- b. How does Chattogram get free from toxic DDT stockpile? 5
- 5 a. What are the risk associated with the use of veterinary drugs and chemicals in aquaculture? 5
- b. Write down the name of drugs that cause hypersensitivity in body with example. 5

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Physiology, Biochemistry and Pharmacology
MS in (Pharmacology) July December semester final-2023
Course title: Endocrine and Nutritional Pharmacology
Course Code: ENP-602
Total Marks: 40

Figure in the right margin indicate full marks. Please answer any 4 (Four) questions from this list

1. Give a brief overview about the Pharmacological and Therapeutic uses, side effects and contraindications of hormones in veterinary practices. 10

2. a) Describe the Prostaglandin biosynthesis pathways. 3+4+3
b) Enlist the name about Prostaglandin-containing preparation for veterinary purpose.
c) What are the different pharmacologic agents used during difficult birthing for large animals.

3. a) Enumerate the effects of Vitamin A and Vitamin D in poultry. 2+3+3+2
b) Describe the Mechanism of Vitamin A and Vitamin D synthesis in biological system.
c) In addition, please describe the Role of Vitamin D in Small Animal Bone Metabolism.
d) Which body system is responsible for the regulation and synthesis of vitamin D?
4. a) What minerals are deficient in farm animals? 5+5
b) What are the most common major minerals animal rations lack?

5. a) Describe the Application of Exogenous GnRH in Food Animal Production. 3+3+4
b) Enlist the Available hormones use for livestock in Bangladesh.
c) Describe in a sketch about the Target organs and their final secretory products of pituitary hormones

6. a) Describe Common nutrition-related problems of poultry. 4+3+3
b) Describe the deficiency diseases of water-soluble vitamins in poultry
c) How a Vet treat thiamine deficiency in chickens.

Chattogram Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology

MS in Pharmacology

Semester: July-December 2022

Subject: Systemic Pharmacology (Theory)

Course Code: SPH-602 (T)

Full Marks: 40

Answer any four questions. Marks are mentioned on the right side of each question.

1. a. Enlist the disadvantages of using systemic antacids in an animal. 2
b. Emetics are contraindicated in horses, rats, and cattle. Shortly describe the causes. 4
c. Sketch the mechanism of action of Bulk and Osmotic purgatives. 4

2. a. Enlist the indications and contraindications of emetics and purgatives. 2
b. Differentiate between reflex and direct sialogogues with a special focus on the mechanism of actions. 2
c. Sketch the mechanism of action of Codeine sulfate. 3
d. Shortly describe the pharmacokinetics of Propofol. In which animal it is contraindicated and why? 3

3. a. Enlist five anti-anemic agents. 1
b. Differentiate between Heart Tonic and Heart Stimulant. 3
c. Sketch the mechanism of action of Fluticasone. 3
d. Differentiate between Ketamine and Diazepam in a tabular manner. 3

4. a. Enlist five non-systemic antacids. 1
b. Sketch the mechanism of action of Salbutamol. 3
c. Differentiate between loop diuretics and thiazide diuretics. 3
d. Describe the mechanism of actions of Aminophylline as respiratory stimulants, nervous stimulants, and diuretics. 3

5. a. Differentiate between the pharmacokinetics of Gabapentin and Pregabalin. 2
b. Describe the pharmacology of Bromhexine. 4
c. Sketch the mechanism of action of Domperidone and Metoclopramide. 4

Chattogram Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology
MS in Pharmacology Final Examination 2023

Semester: July - December

Course Title: Toxicology of Pesticides (Theory)

Course Code: TOP-602

Total marks: 40, Time: 2 hours

(Figures in the right indicate full marks. Answer any FOUR (4) questions).

1. a. Classify pesticides. Write down the mode of action, diagnosis and treatment of malathion poisoning. 5
b. Write down the common public health hazard caused by pesticides. 5

2. a. Briefly discuss the effects of pesticides and herbicides on honey bees and fish. 5
b. Write down the functions and mechanism of ideal fumigants in poultry. 5

3. a. Define toxicity. Write down the impact of pesticides toxicity on ecosystem. 5
b. How will you diagnose and treat acute arsenic poisoning? 5

4. a. Classify herbicides toxicity with their toxicokinetic and toxicodynamic properties 5
b. Briefly discuss the diagnosis and treatment of ANTU poisoning. 5

5. a. Differentiate organo-phosphorus poisoning from organo-carbamate poisoning? 5
b. Discuss the protocol of sample collection while any outbreak happen in dairy farm by toxic agent. 5

Chattogram Veterinary and Animal Sciences University
Department of Physiology, Biochemistry and Pharmacology
MS in Pharmacology, July-December Semester, Final Examination-2023
Course Title: Chemotherapy of Parasitic Disease
Course Code: CPD-602
Full marks: 40; Time: 2 hours

Figures in the right margin indicate full marks. Answer any four (4) from the following questions.

1. a. Briefly describe some natural compounds that are use against cestode. 5
b. Write down the pharmacology of niclosamide drugs in veterinary practices. 5
2. a. Mention the use, mode of action, indication, contraindication and dosage of Hexachlorophene and Praziquantel drugs. 5
b. Enlist some drugs that are use for treatment of Fasciolosis and Paramphistomiasis. 5
3. a. Write down the chemistry, pharmacological action, mode of action, dose and contraindication of the following drugs: 5
i) Nitroxynil ii) Oxyclozanide + Tetramisole
b. "Levamisole drugs act as immune modulator in host"- Justify this statement. 5
4. a. How will you perform shuttle and rotation programs for control of Coccidiosis in a poultry farm? 5
b. Write down the mode of action, indication and dosage of Piperazine citrate and Benzimidazole drugs. 5
5. a. Enlist some important protozoal diseases in livestock and poultry and mention their specific drugs of choice. 5
b. Write down the mode of action, therapeutic use and dosage of imidocarb and ivermectin drugs. 5

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Physiology, Biochemistry and Pharmacology
MS in (Pharmacology) July December semester final-2023
Course title: Pharmacy
Course Code: PHM-602
Total Marks: 40

Figure in the right margin indicate full marks. Please answer 4 (Four) questions from this list

1. Describe the Branches of Pharmacy, its Studies and Applications. 10

2. a) Define community Pharmacy. 2+4+4
b) How you will be inspiring community pharmacy practice in Bangladesh.
c) Describe the main activities of community pharmacist and duties of community pharmacist.

3. a) What is the history of pharmacy in Bangladesh? 5+5
b) How many pharmaceuticals are there in Bangladesh? Please enlist their name.
4. a) Define Trade mark and Trade mark law; 2+6+2
b) How do you describe the marketing of Veterinary drugs, Code of ethics in Pharmaceutical Marketing (CPMP),
c) What are the pricing policies for drugs in Bangladesh?

5. a) Analysing the metabolic fate of oral administration drugs. 4+3+3
b) Describe the Effect of route of administration and distribution on drug action.
c) Mention the steps in Syrup preparation, processing, manufacturing, packaging, labeling and quality control

6. a) Describe the Organization and association related to Pharmacy practice; 4+6
b) Describe the scope and responsibilities of Director General for Drug Administration (DGDA); Bangladesh Pharmaceutical Society (BPS) and Pharmacy Graduate Association (PGA).

M.S. in Surgery; July-December Semester-2023

Subject: Lameness in Animals (Theory)

Course code: LAA-602

Total Marks: 40

Time: 2 (two) hours

Department of Medicine and Surgery; Faculty of Veterinary Medicine

Chittagong Veterinary and Animal Sciences University

(Figures in the right margin indicate full marks.)

Question No. 1 is compulsory. Answer any three questions from the remaining four)

1. (a) "Laminitis is a diffuse aseptic inflammation of the laminae" explain why and how? 04
- (b) Why the sole ulcer is common in dairy cattle of Bangladesh? Mention the line of treatment and prevention methods for sole ulcer in cattle 03
- (c) "Regular foot trimming is a tool in preventing laminitis in dairy farm" explain why and how hoof trimming has an important role to prevent laminitis? 03
2. (a) Draw a schematic diagram on important surgical conditions of a bovine digit. Mention the line of treatment for septic arthritis in animals. 05
- (b) Write down the etiology, clinical findings, treatment and control of interdigital dermatitis in cattle. 05
3. (a) Lameness is often the result of inadequate housing and management" explain why? 05
- (b) What are your diagnostic methods and treatment options for a carpal hygroma in cattle? 05
4. (a) Write down the use of Thomas splint and cast combination for the treatment of fractures of the upper limbs in cattle 05
- (b) What causes upward fixation of the patella in cattle? Describe briefly about the upward fixation of patella in a milking cow. 05
5. Write short notes on *any two* of the followings: - 2x5=10
 - (a) Spastic paresis in calves
 - (b) Grade 3 lameness in dairy cows
 - (c) Sand crack in Horse
 - (d) Hip dislocation in cattle

Chattogram Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery

MS in Surgery, Semester: July-December 2023

Subject: Small Animal Surgery

Course code: SAS-602

Total Marks: 40

Total time: 2 hours

(Please answer any four from the following questions. Figures in the right margin indicate full marks)

Question 1

5x2 = 10

- a) Write down the use of Doxorubicin and Platinum as chemotherapeutic drugs in small animals.
- b) Write down the pre-operative and post-operative management of cystolithiasis and rupture of urinary bladder in small animals.

Question 2

5x2 = 10

- a) Write down the medical and surgical management of megacolon in cats.
- b) How will you manage size disparity in end-to-end anastomosis of intestine in small animals.

Question 3

5x2=10

- a) What do you mean by neuter and castration? Write down the surgical management of cryptorchid in a cat.
- b) Write down the different surgical management for urinary obstruction in dogs.

Question 4

5x2=10

- a) How and why you should do serosal patching? Write down the post-operative care after intestinal surgery.
- b) Write down the transconjunctival enucleation technique in a cat.

Question 5

5x2=10

- a) Write down the procedure of c-section in a 4 kg cat.
- b) How will you surgically manage inguinal hernia in a 3 kg cat?

Question 6

5x2=10

Write short note of any two

- a) Unilateral Mastectomy in dogs
- b) Gastrotomy in cats
- c) Intussusception in dogs

Chattogram Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery

MS in Surgery, Semester: July- December 2023

Subject: Small Animal Anesthesiology

Course Code: SAA-602

Full Marks: 40, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer any **Four (4)** questions)

1. a) Briefly describe about different indicators of patient evaluation before anesthesia. 5
b) Define operative risk. Mention different factors that are responsible for operative risk. 5
2. a) Enlist the sequential steps for checking general anesthesia machine and breathing circuit. 5
b) How will you troubleshoot the anesthetic equipment problems? 5
3. Mention the dose and trade name with composition of dexmedetomidine, fentanyl citrate, morphine, flumazenil, isoflurane, dentrolene, aminophylline, adrenaline, halothane, tolperisone HCl for small animal practices. 10
4. a) How will you treat or manage a patient with chronic pain and depression? 5
b) How will you diagnose the early and late stages of shock? 5
5. a) Mention the anesthesia protocol and special considerations for severely traumatized respiratory emergency patient. 5
b) Plan a proper management system to operate the anesthetic waste gas pollution in TVH, CVASU. 5

M.S. in Surgery; July-December Semester-2023
Subject: Nuclear Medicine, Radiotherapy and Physiotherapy (Theory)
Course code: NMR-602

Total Marks: 40 **Time: 2 (two) hours**
Department of Medicine and Surgery Faculty of Veterinary Medicine
Chittagong Veterinary and Animal Sciences University

(Figures in the right margin indicate full marks.

*Answer any **FOUR** out of Six questions given below where No.-1 is compulsory)*

1. a) Define Nuclear Medicine. What are the difference between a radiologist and radiographer? 02
b) Mention the common radioisotopes used in Veterinary Radiology. 03
c) What are the differences among Chiropractic, Physiotherapy and Osteopathy? 05
2. a) What do you mean by Radiotherapy? How do you apply Radiotherapy in animals? 04
b) Mention the common side effects of Radiotherapy in pet animals? 02
c) What is the importance of 5 steps of Radiation therapy in Veterinary practices? 04
3. a) What are the medical uses of gamma cameras? Draw a schematic diagram of parts for a Gamma Camera? 03
b) The main difference between SPECT and PET scans is the type of radiotracers used- explain how? 03
c) Why is PET preferred to SPECT in nuclear medicine? 04
4. a) How is acupuncture done in animals? What are the benefits of acupuncture in veterinary medicine? 03
b) What are the physiological effects of acupuncture in animals? 03
c) Explain how acupuncture is a safe nonpharmacologic intervention with minimal side effects for pain management? 04
5. (a) Mention the common modalities used in veterinary physiotherapy. How will you differentiate between physiotherapy and physical therapy? 04
(b) Briefly describe the use of therapeutic ultrasound and Neuromuscular electric stimulation in the treatment of small animals? 03
(c) Write the role of exercise and physical modalities in the treatment of osteoarthritis in animals? 03
6. Write short notes on *any two* of the followings:- 2x5=10
 - (a) Role of prosthetics in rehabilitation
 - (b) Tracers
 - (c) Hydro-treadmill therapy
 - (d) Lameness scoring

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination, 2023
Semester: July-December, 2023
Subject: Production Diseases and Udder Health Management
Course Code: PUM-602
Total Marks: 40, Time: 2 hrs

Answer any five of the following questions. Figure in the right margin indicate full marks.

1. Define the production diseases. Discuss briefly the reasons behind production diseases occurred in high yielding dairy animals with examples. 8
2. Make a list of production diseases in and an around parturition in cow. Asses the udder edema with it's management. 8
3. Draw a cross section of four quartered udder with leveling its different structure. Discuss briefly the role of udder morphology and defense mechanism in preventing mastitis. 8
4. Name the organisms causing mastitis in animals. How do you evaluate the clinical mastitis? 8
5. Define mastitis. A goat with 30 kg body weight suffering from gangrenous mastitis. Give the line of treatment. 8
6. Evaluate the importance of dry cow therapy to control mastitis. How would you provide the therapy to dry cow towards control the mastitis? Describe briefly. 8
7. What monitoring system you would follow to herd management of mastitis? Describe briefly. 8

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination, 2023
Sub: Advances in Reproductive Biotechnology
Semester: July-December 2023, Course Code: ARB-602
Total Marks: 40, Time: 2 hrs

Answer any four of the following questions.

1. Define recombinant DNA technology and Biotechnology. Write down the application of ARTs in livestock sector. 4+6
2. How do you assess the donor and recipient for MOET program? What are the principles of embryo transfer technology? 5+5
3. What are the diseases you prevent to transfer by MOET? Design a protocol for MOET in small ruminant. 2+8
4. What are the methods for embryo transfer in animals? Explain the surgical method of embryo transfer in sheep or goats. 2+8
5. Describe the method of ultrasound guided transvaginal ovum pick-up in cow. Evaluate the collected oocyte for IVF? 6+4
6. Write short notes on Cloning and Transgenic animal production 5+5

Chittagong Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery

MS in Theriogenology Final Examination, 2023

Semester: July-December, 2023

Subject: Advances in Gynecology

Course Code: ~~TAI-602~~ ADG-602

Total Marks: 40

Time: 2 hours

Answer any five of the following questions. Figure in the right margin indicate full marks.

1. Define the mechanism of postpartum ovarian rebound in a cow. 8
2. Describe briefly the role of hypothalamus to onset of puberty. Draw a diagram of hormonal interaction in female. 8
3. What is oogenesis? Describe the endocrinological role of ovulation and CL formation. 8
4. What are the hypothetical factors causing repeat breeding syndrome? Describe the management protocol for this syndrome. 8
5. Define follicular wave. How will you improve the fertility in a goat farm by manipulating the follicular wave? 8
6. Write down the diagnosis and line of treatment of abortion in a cow and pseudopregnancy in a bitch. 8
7. What are the causes behind embryonic death? How will you minimize the causes behind embryonic death? 8
8. Write short note on any two 2x4
i. Repeat breeding syndrome in cow =8
ii. Infertility in cattle
iii. Maternal recognition of pregnancy

MS in Theriogenology Final Examination, 2023
Semester: July–December
Subject: **Reproductive Health Management of Farm Animals**
Course code: RHM–602

Figures in the right margin indicate full marks. Answer any **five** questions.

Total Marks: 40

Time: 2 hours

1. a. Discuss the importance of copper, selenium, and iodine on the reproductive health of farm animals. 04
b. Illustrate the correlation between body condition score and reproductive health. 04
2. a. How does colostrum quality affect the time of calving and volume of colostrum? Explain with graphs. 04
b. Discuss the importance of water in rumen development in calf. 04
3. a. What are the parameters you will consider to assess bull fertility? 04
b. Mention the recommended scrotal circumference in relation to the age of the bull. 04
4. a. Discuss different heat detection aids. 04
b. How will you maintain hygiene and sanitation on an urban dairy farm? 04
5. a. How can the front leg and shoulder anatomy of a bull affect parturition? 04
b. How do you manage irregular oestrus and anoestrus in a cow? 04
6. Write short notes on: 4×2
 - a. Vaccination to maximize bovine fertility
 - b. Reproductive and AI record-keeping



Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: July – December' 2023
Subject: Zoo and Wild Animal Medicine
Course Code: ZWM – 602, Credit: 02
Total Marks: 40
Time: 02 (Two) Hours

(Figures in the right margin indicate full marks. Answer any **FOUR** questions)

1. (a) Define Emerging and Re – emerging diseases of Zoo and Wild Animals with 05 (Five) examples of each. **05**
(b) Write down the general principles of treatment and control of diseases in Zoo and Wild Animals. **05**
2. (a) Write down the etiology, signs and lesions, diagnosis and treatment of Tuberculosis in the Spotted Hyena. **05**
(b) Describe the clinical signs, treatment and control of salmonellosis in the juvenile Wallaby. **05**
3. (a) Mention the upper respiratory tract diseases of tiger. **02**
(b) Write down the etiology, route of infection, clinical signs, diagnosis and treatment of Feline pneumonitis in the Royal Bengal Tiger. **08**
4. (a) Mention the etiology, transmission, clinical signs, post mortem lesions, diagnosis, treatment, prevention and control of Bacterial Enteritis in the Gorilla. **07**
(b) Describe the etiology, mode of transmission, lesions and treatment of Gray patch disease in the Green Sea Turtle (*Chelonia mydas*) **03**
5. Describe the etiology, transmission, clinical signs, post mortem lesions, diagnosis, treatment, prevention and control of Anthrax in the Asian Elephant (*Elephas maximus*). **10**
6. (a) What do you mean by “Mycobacterium Avium Complex (MAC)’ in the Tapir? **02**
(b) Describe the etiology, clinical signs. Diagnosis and treatment of MAC in the Tapir. **04**
(c) Write down the role of insectivorous bats in spreading the Nipah virus infection in the human. **04**

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
July-December semester final Examination 2023
Subject: Fluid therapy and blood transfusion
Course Code: FBT-602
Full Marks: 40; Time 2 hours
Answer any four (4) from the following questions

1. a) What are the different types of fluids used in veterinary fluid therapy, and when is each type appropriate? 10
b) How do you calculate maintenance fluid requirements for a dehydrated animal?
2. a) How do you choose between crystalloid and colloid solutions for specific clinical situations? 10
b) How do you monitor and adjust fluid therapy in a critically ill patient?
3. a) Explain the importance of crossmatching in blood transfusion and how it is performed in veterinary practice. 10
b) Why is blood typing relevant, and when is it necessary before a transfusion?
4. a) You are presented with a 5-year-old medium-sized dog that has been diagnosed with severe dehydration due to vomiting and diarrhea. The dog weighs 15 kg. Calculate the initial fluid rate for the first 24 hours using the maintenance fluid formula and outline your plan for administering and monitoring fluid therapy for this patient. Include the type of fluids you would recommend and any adjustments that may be necessary based on the dog's clinical response. 10
b) You are called to attend to a 2-week-old calf on a dairy farm. The calf is lethargic, has sunken eyes, dry mucous membranes, and tented skin, indicating dehydration. The calf weighs approximately 40 kg. Calculate the initial fluid rate for the first 24 hours using the appropriate maintenance fluid formula for calves. Outline your plan for fluid administration, including the type of fluids you would recommend, and discuss any additional considerations for managing dehydration in calves.
5. a) A 7-year-old domestic cat weighing 4 kg is admitted to your clinic with renal insufficiency. The cat is mildly dehydrated, and you decide to initiate fluid therapy. Calculate the maintenance fluid requirements for this cat using the appropriate formula and discuss your choice of fluid type and administration route. Additionally, address any specific considerations or modifications you would make in the fluid therapy plan for a cat with renal insufficiency. 10
b) A group of cattle in a feedlot is showing signs of dehydration due to hot weather and inadequate water intake. One of the cattle, a 600 kg adult, appears particularly affected with lethargy and decreased feed intake. Calculate the initial fluid rate for the first 24 hours using the maintenance fluid formula for adult cattle. Propose a practical fluid therapy plan for these dehydrated cattle, specifying the type of fluids you would recommend, the route of administration, and any adjustments based on the clinical response. Additionally, discuss strategies for preventing and managing dehydration in a herd of cattle during hot weather conditions.

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: July-December 2023
Subject- Pet Animal Medicine
Course code: PAM-602
Total marks – 40
Time – 2 (Two) hours

(Figures in the right margin indicate full marks. Answer any **FOUR** questions)

1. (a) Briefly describe: (a) Canine diabetes (b) Enterotoxemia in rabbit. 07
(b) Write down the vaccination schedule of dog and cat. 03
2. (a) Write down the etiology, clinical signs and treatment of canine plague. 07
(b) What is antibiotic toxicity in rabbit? Illustrate it. 03
3. (a) Write down the clinical signs of feline infectious peritonitis and canine rabies. 04
(b) Why is acetaminophen poisoning serious in cats and how can you treat it? 06
4. (a) Write down the etiology, clinical signs and treatment of feline plague. 06
(b) Explain the terms- tropical canine pancytopenia and pinna-pedal reflex. 04
5. (a) Describe the treatment of canine parvovirus infection and toxoplasmosis. 06
(b) Write down the clinical signs of leptospirosis and infectious canine hepatitis. 04
6. Write short notes on feline respiratory disease complex and hypothyroidism in dog. 10

Chittagong Veterinary and Animal Sciences University
Department of Medicine and Surgery, Faculty of Veterinary Medicine
MS in Medicine, July-December Semester-2023
Subject: Food Animal Medicine II (FAM-602), Total marks: 40, Time-2 (two) hours

(Figure in the right margin indicates full marks. Answer any FOUR questions)

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|----|---|---|------|
| 01 | a | Define shock? How would you identify the patient having shock? What would be your emergency treatment protocol for a patient in shock? | 05 |
| | b | Define metabolic and production disease. List the metabolic diseases of food animal. Briefly discuss the management of downers cow syndrome. | 05 |
| 02 | a | What are the predisposing factors and common lodgment sites of urolithiasis in goats? Suggest the line of treatment of urolithiasis of goats. | 06 |
| | b | What do you mean by indigestion? How would you diagnose and treat a cow suffering from vagus indigestion? | 04 |
| 03 | a | What is fluid therapy? Enumerate the composition and applications of different kind of saline in veterinary practices. | 05 |
| | b | Define jaundice. Classify it. Compose a line of treatment of jaundice in food animal. | 05 |
| 04 | a | Define circulatory failure? Classify it. Briefly describe the general signs and treatment of circulatory failure. | 04 |
| | b | Suggest the treatment and advices for animals suffering from following disorders.
i) Photosensitization
ii. Vitamin E deficiency | 06 |
| 05 | | Write short notes on the following (<i>any two</i>) | 2*5= |
| | | I. Rickets and renal ricket | 10 |
| | | II. Conjunctivitis in goat | |
| | | III. Polioencephalomalacia in buck | |

Good Luck

Chittagong Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery (DMS)

July-December Semester Final Examination 2023

Sub: Population Health; Code: POH-602

Full Marks: 40; Time 2 hours

Answer any four (4) from the following questions

- | | | |
|----|---|-----|
| Q1 | a) What are the objectives in a herd health program. | 4 |
| | b) Describe historical development of herd health as a core subject of veterinary epidemiology discipline. | 6 |
| Q2 | a) What do you mean by benchmarking? | 1 |
| | b) How will you improve the situation of lameness in a dairy farm through bench marking? | 4 |
| | c) Discuss herd health surveillance and management in an integrated HACCP based system? | 5 |
| Q3 | DLS is planning to conduct a surveillance on Q-fever in dairy cows throughout Bangladesh and you are a consultant in this project? How will you take a holistic approach to conduct the surveillance? | 10 |
| Q4 | a) What are the components of a herd health program. | 3 |
| | b) Discuss the flow of data in a herd health program. | 4 |
| | c) Discuss the benefits of a herd health program? | 3 |
| Q5 | a) What do you mean by population health? Draw a population health diagram. | 1+3 |
| | b) Lumpy skin disease is a major problem in cattle farming in Bangladesh. DLS is planning to assess this disease status throughout Bangladesh. As an epidemiologist in the team, prepare a questionnaire to evaluate the situation. | 6 |

GOOD LUCK

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Surgery, Semester: July- December Final Examination, 2023
Subject: Ophthalmic Surgery
Course Code: OPS -602; Credit: 2
Total Marks: 40, Time: 2 (Two) Hours

(Figures in the right margin indicate full marks. Answer any **FOUR** questions)

1. Describe the ophthalmic examination procedure in small animals with diagnostic tests used in different ophthalmic affections. 10.0
2. Define with indications of following terms- enucleation, evisceration, extenteration, orbitotomy and orbitectomy and enumerate different enucleation procedure. 10.0
3. Describe the tarsorrhaphy technique with indications and surgical correction of Cherry eye in dog. 10.0
4. Draw and level of nasolacrimal system and mention the important functions of secretory organs. Write down the indications and procedure of nasolacrimal cannulation/ catheterization in dog. 10.0
5. Mention the different types of cataract. What are the causes responsible for cataract in dogs? Describe the recent surgical techniques used for correction for cataract. 10.0

CHITTAGONG VETERINARY AND ANIMAL SCIENCES UNIVERSITY
Department of Medicine and Surgery
July-December Semester final Examination-2022
M.S. in Epidemiology
Subject: Animal Health Economics (Theory)
Total Marks: 40; Time: 2.0 hours

Answer any four (4) questions from the followings:

1. a) Define animal health economics. Distinguish between economics and veterinary epidemiology. 1+4=5
b) Briefly discuss the economic impact of a production related any selected disease in context of Bangladesh. 5
2. a) Distinguish between economic and financial analysis. How evaluate a disease control program? 2+4=6
b) Classify and list down the costs involved in a specific livestock production system. 4
3. a) Distinguish between input and output. Briefly discuss the Break-even analysis graphically. 1+5=6
b) A layer farm owner started a layer farm by purchasing 1000 matured pullets from a layer farm. On average 45 weeks recorded as laying period, 5% of laying birds died up to laying period and not been replaced during laying period, average egg production per bird was recorded as 21 dozens, farm gate egg selling price is @ Tk. 120 per dozen. At the end of the laying period, remaining hens are sold price @ Tk. 350 per hen as culled birds of that layer farm.
Calculate: Annual output per hen and per egg. Also comment on that farming business. 4
4. a) Define the concepts of Enterprise costing, Gross Margin, Operating Margin and Net Margin. 2
b) Briefly discuss the steps that are followed in preparing a partial budget. 5
c) A Dairy entrepreneur wishes to establish a dairy enterprise keeping 20 hybrid milch cows for 5 years period. Each year the farm owner replaces at least 10 % oldest cow of total herd by heifer valued at \$ 1000. Assumes, each cow yearly produces 1 calf valued at \$ 450, produced milk 2000 liters valued at \$ 0.65 per liter, sacrificed a cow being sold at \$ 750 during Eid-ulazha. Per cow annual rearing cost of that enterprise for variable factors are recorded as: (i) Concentrate feeds valued at \$ 500, (ii) green grasses & paddy straw \$ 450, (iii) Medicine treatment cost valued \$ 100, (iv) Casual labour and (v) Miscellaneous cost \$100.
Calculate: Gross margin per cow and comment on that farm business. 3
5. **Write short notes on (Any four from the followings):** (2.5x4)=10
(i) Cost-Benefit Analysis (CBA); (ii) Partial budgeting; (iii) Project appraisal measures; (iv) Limitations of livestock disease control in Bangladesh; (v) Market equilibrium model.

Chattogram Veterinary and Animal Sciences University

Department of Medicine and Surgery

MS in Epidemiology Jul –Dec Semester Final Examination 2023

Course Title and Code: Risk Analysis and Policy Planning (RAP-602: 2+0)

Total marks: 40; Time: 2.0 hours

(Figures in the right margin indicate the full marks. Answer any of 5 questions)

- Q1.** What is **Risk Assessment**? What are the components of **Risk Assessment**? How do you explain the “**Impact Assessment**” of any livestock disease? **8.0**
- Q2.** What is the potential risk question(s) which may be generated to estimate the risk of **JN.1 strain of COVID-19** introduction (release and exposure) in Bangladesh through air travel? **8.0**
- Q3.** Distinguish the **NAS-NRC model** of risk assessment from the **Covello-Markhofer** model of risk assessment. Briefly explain the risk of **Nipah Virus Infection** as a transboundary seasonal disease with public health significance in the **Covello-Markhofer** model of risk assessment. **8.0**
- 04.** Discuss the components of an “**Emergency preparedness plan**” for a pandemic potential disease like highly pathogenic avian influenza. **8.0**
- 05.** How do you explain the “**Risk management**” steps for “**Newcastle Disease**” in commercial poultry farms? **8.0**
- 06.** Demonstrate the roles of the central government, local stakeholders, and the private sector in preparing the components of an “**Emergency preparedness plan**”. **8.0**

MS in Epidemiology

Subject: GIS and Molecular Techniques in Epidemiology

Course code: GMT 602, July-December 2023

Total marks: 40

Time: 2 hours

(Figures in the right margin indicate full marks. Answer any four questions)

- 1 a What do you mean by transgenic animal? What is the importance of it producing transgenic animal? 3.0
- b Explain different methods for producing transgenic animal with figure. 7.0
- 2 a What is genome sequence? What do you mean by Sanger's reagent? How he used this reagent to identify unknown sequence? 10.0
- 3 a What is gene cloning? What are the steps of gene cloning? 3.0
- How pUC18 is used in gene cloning? Explain it. 7.0
- 4 a Explain different purification process of nucleic acids 10.0
- 5 a What does GIS do? Write down the importance of GIS in disease context. 2.0
- b Explain the difference between raster data and vector data in GIS. Provide examples of situations where each type of data format is commonly used. 5.0
- c What do you mean by edge effect? Briefly describe the different types of mapping methods. 3.0