



Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: January – June' 2024
Subject: Veterinary Dermatology
Course Code: VED – 601, Credit: 02
Total Marks: 40
Time: 02 (Two) Hours

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

1. (a) Write down the importance of skin disease management in veterinary practice. **06**
(b) Define Primary and secondary skin diseases with five examples each. **04**
2. (a) Write down the clinical findings, diagnosis and treatment of Flea allergy dermatitis in dogs and cats. **06**
(b) How to manage a canine Malassezial dermatitis: **04**
3. Differentiate scabies from ring worm, foot rot from myiasis, caseous lymphadenitis from dermatophilosis, and wart from tumor. **10**
4. (a) What are the risk factors associated with nutritional dermatoses in cats? **02**
(b) Describe the etiology, pathogenesis, clinical findings and treatment of Anasarca in cattle. **08**
5. (a) Describe the procedure of producing autogenous vaccine against papillomatosis in cattle. **04**
(b) Discuss the clinical signs, diagnosis and treatment of cutaneous habronemiasis in horses. **06**
6. Describe the etiology, clinical findings, diagnosis and treatment of Ring worm in horse. **10**
7. (a) Discuss canine deep pyoderma with emphasis on its management. **05**
(b) How will you treat defects in cornification of canine skin? **05**

- GOOD LUCK -

Chattogram Veterinary and Animal Sciences University
MS in Medicine

January-June Semester-2024

Subject: Production diseases of dairy animal (PDD-601)

Total marks: 40, Time-2 (two) hours

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

- | | | | |
|----|----|---|--------|
| Q1 | a. | What do you mean by metabolic and production diseases? Why high yielding dairy cows are more prone to metabolic disorders, explain? | 5.0 |
| | b. | Define azoturia. Mention the risk factors that influence the occurrence of it. Give line of treatment and management procedures of patient having azoturia. | 5.0 |
| Q2 | a. | Mention the synonyms of hypocalcaemia, hypomagnesaemia and hypoglycemia in dairy cows. Name the keton bodies may develop in CHO digestion in ruminants. | 4.0 |
| | b. | A high yielding cow of 400 kg body weight brought to the SAQTVH with the history of month before calving, gradual decrease of appetite and milk production. Animal was vigorously licking skin and inanimate objects. Physical examination found all vital signs normal although animal was depressed, belly was tucked up and dry feces. What would be your diagnosis and treatment and advices to take control measures for this condition? | 6.0 |
| Q3 | a. | List possible diseases you may confuse with grass tetany and post parturient haemoglobinuria. Mention significant features to distinguish them. | 5.0 |
| | b. | A recently calved cow of 350 kg body weight brought to hospital with the history of anorexia, constipation, coffee colored urine and sudden depression of milk yield. Physical examination revealed dehydration and pale mucous membrane. What is your presumptive diagnosis? How can you clinically manage the patient? | 5.0 |
| Q4 | a. | What is mineralization? Write down the roles of vitamin D in calcium metabolism. | 5.0 |
| | b. | Briefly describe the factors affecting magnesium homeostasis in ruminant. | 5.0 |
| Q5 | | Write short notes on | 5x2=10 |
| | a. | Downer's cow syndrome | |
| | b. | Pregnancy toxemia in goat | |

“Good Luck”

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine Final Examination, 2024
Semester: January–June
Subject: **Food Animal Medicine (Theory)**
Course code: FAM–601

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

Total Marks: 40

Time: 2 hours

1. a. Discuss the non-infectious hoof lesions of food animals. 04
b. Discuss the current development of vaccines against parasitic infections in food animals. 04
2. a. Summarise the visible signs of heat stress. Do you agree with the statement that heat stress increases the risk of ruminal acidosis? Justify. 04
b. How will you manage heat stress on a dairy farm? 04
3. a. How to increase the resistance of animals to infection in the dairy herd. 04
b. Discuss the effects of LSD on cattle health. 04
4. a. Discuss the current and emerging approaches to Johne's disease diagnosis. 04
b. Write down the epidemiology, pathogenesis, and diagnosis of bovine anthrax. 04
5. a. How will you design a control plan against FMD in an endemic area? 04
b. Write down the clinical management of naval illness and anaplasmosis in goats. 04
6. Write short notes (any two) on: 4×2
 - a. Infectious disease of the camel
 - b. Use of cephalosporins in food animals
 - c. Organic livestock production

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: January-June 2024
Subject- Avian Medicine
Course code: AVM-601
Total marks – 40
Time – 2 (Two) hours

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

1. (a) List 4 common mycotoxin with their sources. Describe one mycotoxin that causes hepatotoxicosis. **01+03=04**
(b) Write down the line of treatment of fowl pox, bumble foot disease & fowl typhoid. **06**
2. (a) Write down the postmortem lesions, treatment and prevention of Newcastle disease. **06**
(b) Differentiate between: i. Marek's disease & lymphoid leukosis
ii. Ulcerative enteritis & necrotic enteritis **04**
3. (a) Write down the differential diagnosis of infectious bronchitis & fowl cholera. **04**
(b) Write down the postmortem lesions of avian nephrosis, chicken infectious anemia and mycoplasma-colibacillosis complex. **06**
4. (a) Write down the etiology, pathotypes, clinical signs and postmortem lesions of avian plague. **07**
(b) Write a short note on vaccination of commercial broiler. **03**
5. (a) Write down the clinical signs of ILT and EDS76. **04**
(b) Name 5 immunosuppressive diseases of poultry. Write down the role of wheat, fish meal & ascariasis in causing necrotic enteritis. **01+05=06**
6. (a) Describe the post mortem lesions of duck viral enteritis and pulmonary aspergillosis in chickens. **06**
(b) Briefly describe parrot fever and psittacine birds AIDS. **04**

Chattogram Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery

MS in Surgery, Semester: January – June/2024

Subject: Large Animal Surgery

Course Code: LAS-601

Full Marks: 40, Time: 2 Hours

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

1.
 - a) Mention the different types of antiseptics with their use in large animal surgery. 3
 - b) What types of challenges should a large animal veterinarian face? 3
 - c) Briefly describe all the incision sites of c-section in cow with the advantages of each site. 4
2. A young man presents a goat in hospital with an incised wound in left side of abdomen. The wound is covered with soil, dirt and rumen content. Its immunization history is unknown.
 - a) Define wound excision and wound debridement 2
 - b) How will you treat the patient? 5
 - c) Mention the possible early and late complications of this patient. 3
3.
 - a) Why is bandaging a buck's head recommended after cornuectomy in a mature animal? 2
 - b) A two-month-old goat was presented to SAQTVH with a history of castration by a local person, showing signs of wound infection in the scrotum, inability to open the mouth and stiffness in the hind limb. What is your presumptive diagnosis? Mention the treatment protocol of this patient. 5
 - c) A patient with femur fracture developed tachycardia with extreme pallor. Can you explain the basis of tachycardia in this patient? 3
4.
 - a) Mention the commercial name of different types of crystalloid fluid. Which fluid will you prefer for burn-injured patients and why? 2
 - b) What are the cardinal features of ruptured urinary bladder? 2
 - c) Mention the common anatomical sites for stone formation. How will you correct urolithiasis in calf surgically? 6
5. A dairy farm owner decided to construct an operation theatre for his farm. He has enough space for this OT. Now as a practitioner, plan a proper requirement system with space allocation for a large animal OT. 10

M.S. in Surgery; January-June Semester-2024
Subject: Zoo, Wild and Lab Animal Anaesthesiology (Theory)
Course code: ZWL 601

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** questions where all questions carry equal marks)*

1. (a) Mention at least three drug combinations with doses for Tiger anesthesia. 03
(b) What are the common capture methods used for catching animals in wildlife conservation and management? 04
(c) How do you select an endotracheal tube for an adult lion in zoo? 03
2. (a) Why monitor anesthetized patients? What vital signs should be monitored during anesthesia? 04
(b) What is the function of the breathing bag in anesthesia? How do you select the breathing bag during gaseous anesthesia in animals? 03
(c) "Capture myopathy is an important cause of death in wild animals"- Explain why? 03
3. (a) Mention the basic equipment required for wildlife anesthesia. 03
(b) What are considerations for the pre-anaesthetic considerations and assessment in wild animal practices? 04
(c) What assessments are used in order to determine an animal's depth of anesthesia? 03
4. (a) What types of anesthesia is used for fish surgery? Mention the name and dose of natural anesthetic for fish. 03
(b) Explain the method of intubation in fish? What types of fishes are commonly need surgery? 03
(c) What facilities are required in surgical table for fish surgery? What are the common factors affecting anesthesia in fish? 04
5. Write short notes on *any two* of the followings- 2x5=10
 - (a) Darts used in wildlife anesthesiology
 - (b) Pre-medicative agents for elephant
 - (c) Anatomical and physiological considerations during bird anesthesia
 - (d) Euthanasia of a bear in zoo

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Surgery, Semester: January-June, 2024
Subject: Orthopaedic Surgery
Course Code: ORS 601; Credit: 2
Total Marks: 40, Time: 2 (Two) Hours

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

1. In order to diagnose a specific problem, what is the systemic approach for orthopaedic examination in small animals? 10.0
2. Enlist the different primary and secondary fracture management techniques used for long bone fracture correction as well write down the indications of those techniques. Mention the IMP and plating related instruments with their functions. 10.0
3. Describe the different surgical techniques for the correction of mandible and maxillary fracture in a cat. 10.0
4. What are the types of spinal injury/ usually occur in small animals? What are the other injuries associated with spinal trauma? How will you diagnose and manage a dog/cat suffering from lumbar spine injury? 10.0
5. Write down the bone healing process specially for long and flat bone fracture. Mention the common complications during bone healing. 10.0
6. Write down the incidence, clinical findings and different correction techniques of patellar luxation in dogs. 10.0

Chattogram Veterinary and Animal Sciences University
MS in Surgery January-June Semester Final Examination 2024

Subject: Large Animal Anaesthesiology

Course code: LAA 601

Total Marks: 40

Total time: 2 hours

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

Q 1. 5x2 = 10

- a) Write down the generic and trade doses of five analgesic agents in cattle and horse.
- b) What are the complications associated with general anaesthesia in cattle and horse, and how will you overcome those?

Q 2. 5x2 = 10

- a) Write down the protocol of cornual nerve block in a 400 kg bull.
- b) Write down the protocol of Peterson nerve block in adult cattle.

Q 3. 5x2 = 10

- a) Calculate maximum volume of 2% lidocaine that could be given to a 300 kg cow.
- b) What are the parameters you should consider for the evaluation before anaesthesia in cattle and horse and how will you prepare cattle and horse before general anaesthesia?

Q 4. 5x2 = 10

- a) What local anaesthetic technique will you prefer for inserting nose ring in a bull? Write down the detailed protocol of your preferred technique.
- b) Write down the protocol for injectable general anaesthesia in a calf for duration of 20 minutes.

Q 5. 5x2 = 10

- a) What would be your local anaesthetic protocol to amputate digit in a 50 kg calf in footrot?
- b) Write down the injectable general anaesthetic protocol for duration of 60 minutes surgery in an adult horse.

Q 6. Write short note of any two 5 x2 = 10

- a) Muscle relaxant b) High epidural anaesthesia in a calf c) Triple drip

Chattogram Veterinary and Animal Sciences University
Department of Medicine and Surgery
MS in Epidemiology January-June Semester Final Examination 2024
Course Title and Code: Research Methodology (REM: 2+0) (Theory)
Total marks: 40; Time: 2 hours

[Answer all questions and right margin indicates full marks]

The Human Health and Animal Health authorities in Chattogram Metro are concerned about the existing hospital waste management system. They like to scientifically explore the current status of the hospital waste management system with concerns in order to improve the system.

Question 1:

- a. Name and describe the structure of an appropriate epidemiological study design. **(Points 8)**
- b. List the information you need to include in the questionnaire, interview guide and observation check list for your chosen study. **(Points 7)**

Sample size calculation and sampling technique are important for designing and conducting any epidemiological study.

Question 2:

- a. Write different assumptions in sample size calculation according to each of major epidemiological studies. **(Points 6)**
- b. Classify sampling techniques with their advantages and disadvantages. **(Points 6)**
- c. Describe sampling fraction and which sampling scheme uses the sampling fraction? **(Points 3)**

Controlling biases and confounding should be taken care of at the stages of epidemiological study designing and implementing.

Question 3:

Describe and deal with different biases in various epidemiological study designs **(Points 5)**

Write short notes:

Question 4:

- a. Settings of nested case-control study and intervention study. **(Points 3)**
- b. Ecological fallacy. **(Points 2)**

Chittagong Veterinary and Animal Sciences University
Department of Medicine and Surgery
MS in Epidemiology January-June Semester Final Examination 2024
Course Title and Code: Principles of Epidemiology (PRE: 2+0)
Total marks: 40; Time: 2 hours
[Answers all questions and right margin indicates full marks]

Scenario-1: Brucellosis is a bacterial disease caused by various *Brucella* sp., which mainly infect cattle, swine, goats, sheep and dogs. Humans usually get the disease through direct contact with infected animals, by eating or drinking contaminated animal products or by inhaling airborne agents. Sex, age, season, geographical location, and farm size are identified risk factors for brucellosis in cattle.

Question 1:

- Identify Outcome and Exposure of Brucellosis in cattle and humans and define terms – “Outcome” and “Exposure”. (Points 4.0)
- Identify “Necessary Cause” and “Sufficient Cause”. What is the importance of determining “Sufficient Cause”? (Points 5.0)
- Describe an appropriate measure to assess Brucellosis in cattle and human population in Chattogram district. Differentiate your chosen measures from the other measures. (Points 4.0)
- The findings of an epidemiological study on Brucellosis are given below. Based on these informations, calculate and interpret an appropriate measure of the disease frequency and measures of effect. (Points 7.0)

Sex	Brucella +ve	Brucella -ve	Total
Male	10		100
Female	25		100
Total	35		200

Scenario-2: Understanding about an infection disease (like COVID-19, Avian Influenza) distribution and patter is important to make decision on taking control measures.

Question 2:

Describe different distribution and patterns of COVID-19 or Avian Influenza and their importance. (Points 6.0)

Scenario-3: Two groups of cattle, each of 100 heads, were vaccinated with Lumpy Skin Disease (LSD) Vaccine and Goat Pox vaccine, respectively to prevent the occurrence LSD. After one year of monitoring, 10% cattle in group-A and 20% cattle in group-B were LSD.

Question 3:

- Produce 2×2 table, calculate and interpret the vaccine efficacy. (Points 4.0)
- Briefly describe the terms below: Attributable Risk, Attributable Risk Fraction. (Points 2.0)

Scenario-3: An unknown infectious disease outbreak has brought out in animals and humans in Chattogram Metro. The local Livestock and Health authorities are struggling to contain the outbreak. They are looking for expert suggestions. They specially like to know how rapidly the unknown infection is spreading in population (animal and human) to set certain control measure.

Question 3:

- Write down the list of appropriate measures to assess the spread of unknown infection disease in population with their assumptions (Points 6.0)
- What is the importance of Herd Immunity Threshold? (Points 2.0)

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination 2024
Semester: January- June
Course Title: **Reproductive Hormones (Theory)**
Course Code-RDH-601, Credit: 2
Total marks: 40, Time: 2 hour

(Answer any five questions which have equal marks eight)

- 1) Interpret the clinical use, doses, routes, and contraindications with the name of the available market product of the hormones of GnRH, LH, PGF_{2α}, P₄ and oxytocin for the species of cow, doe, bitch, and cat.
- 2) Draw and label endocrinological changes during pregnancy in different species.
- 3) Prepare a hormonal plan for the termination of pregnancy in bitch, queen, mare, cow, and doe during early, mid and late gestation period.
- 4) You are going to visit a dairy farm having 300 cows. Farm owner would like to get more profit by selling milk in the season when the milk price is high. Develop a plan for this farm by using hormones.
- 5) Sketch the diagram of hormonal regulation for hypothalamus-pituitary-gonadal axis.
- 6) Write short notes on any two of the following:
 - a. Maternal recognition of pregnancy.
 - b. Changes in hormones during the estrous cycle in cow.
 - c. Biosynthesis of protein hormone.

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination, 2024
January-June, Semester, 2024
Sub: Advances in Obstetrics
Course Code: AOB-601(T), Janu-June, 2024
Total Marks: 40, Time: 2 hrs

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

1. Differentiate Obstetrics from Gynaecology? Name five important cases for each. Describe briefly the procedure of ovulation in cow. 8
2. Summarize the drugs with doses and route of administration used for termination and induction of parturition in cow, bitch, ewe and mare. 8
3. Describe the maternal recognition of pregnancy in different animals. 8
4. What is tocolytic drugs. Name some tocolytic drugs uses in animals. A three months pregnant cow admitted in SAQTVH, CVASU with the history of slight bloody discharge from last 5 days. What might be this case? Give the treatment. 8
5. Mention the parturient characters of the cow and cat. Draw a diagram of procedure of parturition in cow. Describe the procedure of treatment of retained placenta in cow. 8
6. Write short notes on dystocia. 8

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery

MS in Theriogenology Final Examination 2024

Semester: January- June

Course Title: **Advances in Andrology and Male Infertility (Theory)**

Course Code: AMI-601, Credit: 2

Total marks: 40, Time: 2 hour

(Answer any five questions which have equal marks eight)

1. How will you evaluate a bull for giving a Breeding Soundness Certificate?
2. Describe the method and procedure of semen collection and semen evaluation in bull, Buck, ram, dog, cat, and poultry.
3. Elist the semen-borne and venereal diseases. How will you diagnose those diseases in animals?
4. Enumerate the diseases affecting the male reproductive system with their diagnosis and treatment.
5. Write down the procedure for the clinical examination of sexual behavior of male animals.
6. Write short notes on any two of the following:
 - a) Endocrinology of spermatogenesis.
 - b) Disease diagnosis and treatment for infertile male animal.
 - c) Procedure and method of staining technique for sperm.

Chattogram Veterinary and Animal Sciences University
MS in Microbiology Final Examination
January-June Semester, 2024
Course Title: Food Microbiology
Course Code: FMB-601
Total Marks: 40, Time: 2 hours

Answer any **four** questions. The figures in the right margin indicate full marks.

1. (a) Complete the following table:

Condition/Common name	Name of causal agent
White spot of meat	
Fishiness flavor of milk	
	<i>Alcaligenes viscolactis</i>
Pink mold rot	
Bread mold	
T.A spoilage of canned food	
	<i>Enterobacter cloacae</i>
The stale-fishy odor of fish	
French dry sherry	
	<i>Thamnidium</i>

(0.5x10=5)

- (b) List the intrinsic factors of a food. Explain the effect of pH and O-R potential of food in microbial growth.

5

2. (a) Define TDT with examples.

2

- (b) Briefly describe the preservation of foods using drying methods.

4

- (c) Sketch the steps for investigating an outbreak of *Cl. perfringens* food poisoning.

4

3. (a) Enlist the genera of bacteria important in food microbiology.

2

- (b) Write down the principles and methods of food preservation.

3

- (c) Describe different color and flavor changes of milk due to spoilage.

5

4. (a) Define SCP. Write down the principles of HACCP.

1+2

- (b) What is food control? Describe the causal agent, pathogenicity, toxin associated, and conditions necessary for botulism outbreak.

1+3

- (c) Sketch the classification of food-borne infections.

3

5. Write short notes on any **four**-

(2.5x4=10)

- i. Thermotolerant bacteria
- ii. Spoilage of meat under anaerobic condition
- iii. Defects of can
- iv. Associated growth of micro-organisms in food
- v. Aflatoxin poisoning