Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: January-June 2023
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) Differentiate between BCRDV and RDV. **04**

(b) Write the etiology and clinical signs of following conditions/diseases- Penguin like posture, Bumble foot disease, Marek's disease. **06**

2. (a) Write down the postmortem lesions, treatment and prevention of Duck plague. **06**

(b) Describe briefly: i. Angara disease ii. Quail disease **04**

3. (a) Name 5 common diseases of pet birds and describe beak and feather disease of parrot. **04**

(b) Write down the postmortem lesions of necrotic enteritis, fowl cholera and fowl typhoid. **06**

4. (a) Write down the etiology, pathotypes, clinical signs and postmortem lesions of Avian influenza in chickens. **07**

(b) Write a short note on vaccination of commercial layer. **03**

5. (a) Write down the clinical signs of ILT, EDS76 and avian encephalomyelitis. **06**

(b) Name 5 vertically transmitted diseases. What could be the possible reason for vaccine failure in infectious bursal disease? **04**

6. (a) Describe the clinical signs of Newcastle disease and pox in chickens. **06**

(b) Mention 08 forms of colibacillosis. Briefly describe parrot fever. **04**

Chattogram Veterinary and Animal Sciences University
Department of Medicine and Surgery
MS in Epidemiology January-June Semester Final Examination, 2023
***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]

Scenario-1: Newcastle Disease (ND) is an endemic disease in chickens of all production types in Bangladesh. ND vaccine is usually performed in chickens of commercial chicken farms, but ND outbreak occurs frequently in commercial chickens. Therefore, we need to know the factors associated with the vaccine failure and other factors in association with ND occurrence. Based on the background, answer the questions below.

Question 1:

a. Pick up an appropriate epidemiological study design and describe briefly in a sketch. **(Points 8)**
b. Distinguish your chosen study design from each of other major epidemiological studies in terms of their epidemiological traits. **(Points 6)**

Question 2:

a. Write down the measures of disease frequency and measures of effect for each of major epidemiological study designs in a tabular form. **(Points 6)**
b. Define and classify population. Calculate sample size to conduct a cross-sectional study to estimate burden of x disease in goat population by using statistical assumptions with their example values. **(Points 7)**

Question 3:

a. Classify different sampling schemes with advantages and disadvantages (Hints: Only for broad classes) **(Points 6)**
b. Explain systematic and cluster random sampling with examples. **(Points 4)**
c. Distinguish case report and case series. **(Points 3)**

Chittagong Veterinary and Animal Sciences University
Department of Medicine and Surgery
MS in Epidemiology January-June Semester Final Examination, 2023
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: Sonali chicken rearing is becoming popular across Bangladesh. However, there are many challenges in commercial Sonali farming (e.g., diseases, mortality, and excessive use of antibiotics), and traditional veterinary health care service is not fully capable of dealing the challenges in order to make Sonali farms profitable. Therefore, population medicine (i.e., epidemiological) service is required for Sonali farming. But before offering an epidemiological intervention what epidemiological traits you need to estimate in Sonali chicken population.

Question 1:
Based on the above background answer the following questions:

a. Write two important epidemiological measures and their pre-requisites. **(Points 2.0)**
b. Describe different patterns of x infectious disease in Sonali chicken. **(Points 4.0)**
c. Of 400 small- to medium-scale Sonali farms 20% farms had H9 positive. Among the positive proportion of farms 80% were small-scale Sonali farms. Now, by using an appropriate factor construct 2×2 table, calculate and interpret different ratio measures. **(Points 8.0)**

Scenario-2: Two groups of cattle, each of 250 heads, were vaccinated with Lumpy Skin Disease (LSD) Vaccine-1 and LSD Vaccine-2, respectively to prevent the occurrence LSD. After one year of monitoring, 15% cattle in group-A and 25% cattle in group-B were LSD.

Question 2:

a. Now,. construct 2×2 table, calculate and interpret LSD vaccine efficacy. **(Points 5.0)**
b. Briefly describe the terms below: Attributable Risk, Attributable Risk Fraction and Number Needed for Treatment. **(Points 3.0)**
c. Distinguish between "Basic Case Reproduction Number" and "Net Case Reproduction Number". If R0 is 4 for x infectious disease in epidemic situation, then calculate and interpret "Herd Immunity Threshold (HIT)". **(Points 5.0)**

Question 3:

a. Briefly explain your understanding about "Confounding" and "Interaction" in sketches. Let's say you have a crude estimate (between a factor and an outcome), stratum specific estimates for another factor and pooled estimate along with p value. Now, explain "Confounding" and "Interaction". **(Points 7.0)**
b. Standardization is one of the ways of dealing "Confounding". What information do you need to calculate the following estimates: Comparative Mortality Figure (CMF) and Standardized Proportional Mortality Ratio (SPMR). (**Points 4.0**)
c. Distinguish between systematic error and random error. (**Points 2.0**)

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine Final Examination, 2022
Semester: January-June
Subject: **Production diseases of dairy animals**
Course code: PDD–601

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

Total Marks: 40 Time: 2 hours

1. a. Why are dairy calves needed? Explain colostrum storage and feeding strategies for dairy calves. 04
   b. How could feeding excessive fat to ruminants enhance the risk of the occurrence of production diseases? 04

2. a. Discuss the aetiology and prevention of downer's cow syndrome. 04
   b. Discuss the factors that are responsible for developing hypocalcaemia in cows. 04

3. a. How will you differentially diagnose a case of polioencephalomalacia under field conditions? 04
   b. "Ruminal acidity is not linked with laminitis in ruminants." Explain your opinion, whether you agree or disagree with the statement. 04

4. a. Write down the causes of Fe deficiency in farm animals and the available drugs to correct it. 04
   b. Illustrate the importance of phosphorus in animals 04

5. a. Explain the disorders that are associated with a deficiency of vitamin D. 04
   b. Explain the normal function and deficiency syndrome of a deficiency of vitamin E and Se. 04

6. Write short notes (any two) on: 4×2
   a. Grass tetany
   b. Mastitis
   c. Ketosis

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: January – June' 2023
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) Define Veterinary Dermatology **02**
   (b) Discuss the essential and optional equipment for the dermatological tests in the domestic animals. **04**
   (c) List 10 commercially available drugs used only for skin disorders in the domestic animals. **04**

2. (a) Differentiate Parakeratosis from the Hyperkeratosis in the domestic animals. **05**
   (b) How to manage a case of Canine Malassezian Dermatitis? **05**

3. Describe the etiology, clinical signs, diagnosis, treatment, prevention and control of Lumpy skin disease (LSD) in cattle. **10**

4. Define Photosensitization. Write down the etiology, classification, clinical findings, diagnosis, treatment, prevention and control of Photosensitization in cattle. **(02 + 08) = 10**

5. (a) Describe the clinical findings, diagnosis and treatment of Seborrhea in dogs. **05**
   (b) Describe the etiology, clinical signs, diagnosis and treatment of Dermatophilosis in dog. **05**

6. (a) Write down the common causes and clinical signs of food allergy in cats. **05**
   (b) How to diagnose squamous cell carcinoma in cats? **05**

7. Describe the etiolgy, clinical findings, diagnosis and treatment of Ring worm in horse. **10**
8. Write Short Notes On – **(2 X 5)= 10**
   (a) Orf.
   (b) Wart.

– GOOD LUCK –

Chittagong veterinary and Animal Sciences University
Department of Medicine and Surgery, Faculty of Veterinary Medicine
MS in Medicine, January-June Semester-2023
Subject: Zoonotic Medicine (ZOM-601), Total marks: 40, Time-2 hours

*(Figure in the right margin indicates full marks. Answer any **Five** questions where Q1is compulsory)*

Q1 a. Define zoonoses and veterinary public health. Classify zoonoses according to the mode of transmission. 4.0

b. How the knowledge of zoonotic diseases will help to improve public health, explain? 4.0

Q2 Enumerate the zoonotic significance of following diseases both in human and animal. 4*2=8.0

a. Actinomycosis
b. Salmonellosis
c. Toxoplasmosis
d. Listeriosis

Q3 Briefly describe the source of infection and mode of transmission of following zoonotic diseases. 4*2=8.0

a. Botulism
b. Giardiasis
c. Rotaviral diarrhea
d. Aspergillosis

Q4 b. List the mycobacterium species having zoonotic importance. How human can get infected with them? Write down the measures need to be taken to control TB in animal and human. 4.0

a What are the three forms of rabies? What sequential steps you would like to follow in controlling rabies in animals and humans? 4.0

Q5 a. List the important parasitic and fungal zoonoses with causal agents and zoonotic significance both in animal and human. 4.0

b. Discuss biochemical and serological tests for the diagnosis of Avian Influenza and Brucellosis. 4.0

Q6 Write a short note on 4*2=8.0

a. Cutaneous Leishmaniasis
b. Zoonotic Scabies

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
January-June Semester Final Examination-2022
Subject: Food Animal Medicine I (FAM-601)
Total marks: 40, Time-2 Hours

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

1.	a) What are the enterotoxemic diseases of cattle? Write down the common line of treatment of them.	4.0
	b) Write down the epidemiology, clinical sign and diagnosis of Anthrax?	4.0
2.	a) Write down the diagnosis, treatment and prevention of Dermatophilosis and Dermatophytosis.	4.0
	b) Write down the epidemiology, clinical sign, differential diagnosis and control of tetanus in goat?	4.0
3.	a) Write down the predisposing factors and line of treatment and prevention of pink eye and HS.	4.0
	b) Write down the similarities of Actinomycosis and Actinobacillosis and differential points of TB and para TB. Write down the specific antimicrobial agent (generic name) for above mentioned diseases.	4.0
4.	a) Write down the causal agent, clinical sign, treatment along with advice of good management practice for Joint ill in lamb.	4.0
	b) A cow weighing 250 kg is presented in SAQTVH, CVASU, calved two days before. The owner is worried since his cow is not eating anything and suffering from moderate fever with swelling in the left hind quarter. The secretion of the gland is watery and contains flakes. Diagnose the condition in systemic way and provide treatment.	4.0
5.	a) Enlist the major anthelmintics found in Bangladesh with generic name, trade name, dose, duration, pack size and route of administration in food animals.	4.0
	b) What is the major risk for calf mortality in Buffalo in Bangladesh? Write down the route of entry of the agent in host body with diagnosis and treatment.	4.0
6.	a) Write down the line of treatment, post mortem findings and control measure of the following diseases: i) Fascioliasis and ii) Babesiosis	4.0
	b) Enlist the clinical conditions caused by mycoplasma infection in ruminant. Write down the diagnosis and treatment of nasal bot fly infestation in a ram.	4.0

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Surgery, Semester: January-June, 2023
Subject:Large Animal Surgery
Course Code: LAS 601; Credit: 2
Total Marks: 40, Time: 2 (Two) Hours

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

1. Write down the general considerations for abdominal surgery in large animals. Note the common congenital and acquired surgical affections in cattle and goat at SAQTVH. Describe the different techniques for umbilical hernia correction in calves. 10.0

2. Mention the common surgical affections of gastrointestinal tract in ruminants and horses. Describe the different techniques of intestinal anastomosis. 10.0

3. Describe the detailed surgical technique with indications, age and anaesthesia of castration in horse. 10.0

4. Write down the indications, anaesthesia and surgical procedure of penile translocation in a bull. 10.0

5. Write short notes on- mastectomy in a goat and caesarean section in a cow. 10.0

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Surgery,Semester: January-June, 2021
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. Write down the detailed orthopaedic examination procedure for lameness condition in animals 10.0

2. Mention the IMP and plating related instruments and implants with their functions. Describe the intramedully pinning technique for femur fracture in a cat. 10.0

3. Write down the incidence, clinical findings and different correction techniques of patellar luxation in dogs. 10.0

4. Describe the different surgical techniques for the correction of mandible and maxillary fracture in a cat. 10.0

5. 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

6. Enumerate the different fracture reduction and immobilization techniques with ancillary methods for long bone fracture management in animals. Write down in detail the Robert Jone's bandage technique for tibial fracture management in dog. 10.0

Chattogram Veterinary and Animal Sciences University
MS in Surgery; January-June Semester Final Examination 2023
Subject: Large Animal Anesthesiology
Course Code: LAA-601
Total Marks: 40
Total Time: 2 hours

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

1. (a) How will you maintain preanesthetic considerations for ruminant surgery? 4
   (b) Classify preanesthetics with example. How will you diagnose and treat toxicity of local anesthesia? 6

2. Mention the name of local anesthesia technique(s) and site of anesthesia for below mentioned surgeries- 10
   (i) Dehorning in goat (ii) C-section in cow (iii) Nasal septum piercing in bull
   (iv) Rectal prolapse correction in cow (v) Amputation at hock joint in goat

3. (a) Define double drip and triple drip. When will you choose either double drip or triple drip in large animal anesthesia? 4
   (b) Briefly describe about two anesthesia protocols which are commonly used in Bangladesh for large animal surgery. 6

4. (a) Mention the specific name of breathing systems of TVH, CVASU that are commonly used for general anesthesia in animals. Draw the mentioned breathing systems. 5
   (b) How will you manage a cardiac depressed patient during anesthesia? 5

5. (a) Classify muscle relaxants with examples (mentioning generic name and dose) 5
   (b) Mention the acceptable methods of euthanasia for animals. Write down any acceptable protocol for euthanasia in animals. 5

M.S. in Surgery; January-June Semester-2023
Subject: **Zoo, Wild and Lab. Animal Anaesthesia**
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*)

1. (a) How will you classify injectable anaesthetics used in zoo animal practice? 03
   (b) Mention at least three parameters monitored for respiratory, cardiovascular and cardiovascular systems during general anaesthesia in wild and zoo animals? 04
   (c) Briefly mention the maintenance of airway during anaesthesia of zoo, wild or laboratory animals. 03

2. (a) How will you diagnose dehydration in zoo animals? 02
   (b) Describe the conditions of the zoo patients whether the fluid therapy is contraindicated or indicated under special supervision. 04
   (c) What are the common routes for fluid administration in zoo, wild and lab animals? 04

3. (a) What are the principles of pain management in animals? Why it's important for all species of animals. 03
   (b) Write down the capture and restraint techniques for different species of mammals? 04
   (c) Write down the objectives of CPCR in wild animals. Mention about the six steps of CPCR adapted from the human resuscitation council guidelines. 03

4. (a) What are the methods for tranquilization or premedication in felids? 04
   (b) Briefly describe the different types of dart used in zoo animal practices. 03
   (c) Describe the mechanism of drug delivery in blow darts? 03

5. (a) What are the emergencies during anaesthesia in birds? 03
   (b) Mention the name and dosage of three recommended drugs for immobilization of wild animals? 03
   (c) Briefly describe the care and emergencies for protection of capture myopathy in wild animals. 04

2x5=10

6. Write short notes on ***any two*** of the followings-
   a) Inhalation anaesthesia in tigers
   b) Immobilization of free ranging animals
   c) Premedicative agents for elephant.
   d) Intravenous catheterization in Birds

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

MS in Theriogenology Final Examination, 2023
January-June, Semester, 2023
Sub: Advances in Obstetrics

Course Code: AOB-601(T), Janu-June, 2023
Total Marks: 40, Time: 2 hrs

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

1. How fertilize the ova by sperm? Describe briefly with picture. 8
2. Summarize the drugs with doses and route of administration used for termination and induction of parturition in animals 8
3. What types of placenta developed in animals? How placenta developed in cow? Describe briefly. 8
4. A cow of 12 days post partum admitted in SAQTVH, CVASU with the history of high body temperature, lameness, foul fetid odor of uterine discharge and loss of appetite. What is your diagnosis? Write a prescription for treating this case. 8
5. Sketch out the hormonal level in pregnancy and parturition in cow. Describe the procedure of treatment of vaginal prolapse in cow. 8
6. Write short notes on mutation 8

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination, 2022
Semester: January–June
Subject: **Reproductive Hormones**
Course code: RDH–601

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

Total Marks: 40 Time: 2 hours

1.	a. Describe the structure of reproductive hormones.	04
	b. Explain the inhibitory and stimulatory feedback of endocrine hormones.	04
2.	a. Discuss the techniques used to study endocrinology.	04
	b. Summarise the origin and function of reproductive neuro-hormones.	04
3.	a. Illustrate the mechanism of action of steroid and protein hormones.	04
	b. How melatonin is formed in animal body?	04
4.	a. Describe the structure, source and principal functions of oestrogen, progesterone and testosterone.	04
	b. Write down the name, mode of action and function of five growth factors.	04
5.	a. Why are placental hormones necessary to maintain a healthy pregnancy?	04
	b. Illustrate the endocrine-neuroendocrine relationship among hypothalamus, pituitary gland, and gonad.	04
6.	Write short notes (any two) on: a. Neuroendocrine reflex of milk letdown b. Inhibins c. Available veterinary hormonal products in Bangladesh	4×2

Faculty of Veterinary Medicine
Department of Medicine and Surgery

MS in Theriogenology Final Examination, 2023
January-June semester, 2023
Subject: Advances in Andrology and Male Infertility
Course Code: AMI-601(T)
Total Marks: 40, Time: 2 hours

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

1.	a.	Define semen with mentioning it's composition. Draw a fine structure of spermatozoa.	5
	b.	Describe the procedure of semen evaluation.	5
2.	a.	If you will provide a 2years bull. How do you valuate this bull for breeding purpose?	5
	b.	Make a certificate for reporting the soundness of a bull.	5
3.	a.	Make a daily ration chart for maintaining a 300 kg body weight breeding bull.	5
	b.	What are the steps you may take to reduce the loss of semen quality?	5
4.	a.	What are the semen borne diseases?	5
	b.	Describe the procedure for detection of semen borne diseases?	5
5.		Write short notes on any two of the following	5×2
	a.	Seminal vesiculaitis	
	b.	Fertilization	
	c.	Male infertility	