

Chattogram Veterinary and Animal Sciences University

Department of Medicine and Surgery

MS Jul–Dec Semester Examination 2021

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

Total marks: 40; Time: 2.0 hours

(Right of the margin indicates the full marks. **Answer any of 5 questions**)

- Q1.** How do you explain “Hazard” and “Risk” with examples? Distinguish quantitative risk assessment from qualitative risk assessment. **8.0**
- Q2.** What is the potential risk question(s) which may be generated to estimate the risk of Monkey Pox virus introduction (release and exposure) in Bangladesh through air travel? **8.0**
- Q3.** Describe entry and exposure pathways which would be pertinent for introduction of Monkey Pox virus through air travel from infected countries to Bangladesh. **8.0**
- Q4.** What do you mean by “Contingency plan”? List the most common contents of a “Contingency plan” for a pandemic potential disease like highly pathogenic avian influenza. **8.0**
- Q5.** What is the role of risk analysis in infectious disease surveillance? **8.0**
- Q6.** What are the challenges of livestock policy compliances like relevant acts and rules, farm and feed mill registration, conduct surveillance, disease reporting and mobile court operation in the field level? And how we can deal those challenges? **8.0**

Chattogram Veterinary and Animal Sciences University

MS in Epidemiology

July-December 2021

* Subject: GIS and Molecular Techniques in Epidemiology

Course code: GMT (602)

Total marks: 40

Time: 2 hours

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

J-D/21



1. a What is a Geographical Information System? What does GIS do? List down the major components of Spatial Epidemiology. 5.0
- b Briefly describe Geo-referencing and data integration. What are the benefits of Geo-databases? 5.0
2. a What are the different features we read in a GIS map? Describe them briefly. 5.0
- b What is the data format for the GIS application? Write down the characteristics of different data formats with their advantages and disadvantages. 5.0
3. a What is gene sequence? Why it is needed? Explain chain termination method of gene sequence. 10.0
4. a Differentiate expression and cloning vector. 5.0
- b Illustrate different parts of commercial pUC18 and its usefulness to identify gene cloning 5.0
5. a Elucidate different methods of extraction of nucleic acids 10.0

Chittagong Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery (DMS)

July-December Semester Final Examination 2021

Sub: Population Health; Code: POH-602

Full Marks: 40; Time 2 hours

Answer any four (4) from the following questions

- Q1 a) Discuss the role of veterinarians and farmers in herd health programme. 4
b) Describe historical development of herd health as a core subject of veterinary epidemiology discipline. 6
- Q2 a) What is benchmarking? 1
b) How will you improve the situation of subclinical acidosis in a dairy farm through benchmarking? 4
c) What is HACCP? How can you apply HACCP principles in calf rearing in a dairy farm? 5
- Q3 DLS is planning to conduct a surveillance on LSD throughout Bangladesh and you are a consultant in this project? How will you take a holistic approach to conduct the surveillance? 10
- Q4 a) Discuss economic aspects of mastitis. 3
b) Write down the different measures to prevent mastitis. 4
c) How lameness is associated with high SCC and mastitis? 3
- Q5 a) Discuss the importance of communication veterinarians and farmers in herd health management. 4
b) Hemorrhagic septicemia is a major problem in buffalo rearing in Bangladesh. DLS is planning to assess this disease status in buffalo population. As an epidemiologist in the team, prepare a questionnaire to evaluate the situation. 6

GOOD LUCK

CHITTAGONG VETERINARY AND ANIMAL SCIENCES UNIVERSITY

Department of Medicine and Surgery

MS in Epidemiology

July to December Semester MS Final Examination, 2021

Course Title: Animal Health Economics (Theory)

Course Title: AHE-602

Full Marks: 40

Time: 2 hours

Answer any four (4) questions from the followings:

1. a) Distinguish between animal health economics and Epidemiology. Write the necessities of the studying of the animal health economics. 2+2=4
b) Briefly discuss the impact of animal diseases on livestock farming system. 6
2. a) Define input and output. Point out the rules and methods which are used in calculating the livestock output measuring system. 1+5=6
b) A duck farm entrepreneur started a duck laying farm by purchasing 1000 matured pullets from the Naraongonj Govt. Duck hatchery farm in the financial year 2017-2018. On average 50 weeks recorded as laying period, 15 % of laying ducks died and not replaced during laying period, average egg production per bird recorded as 250 eggs, sold @ Tk. 125 per dozen. At the end of the laying period, remaining ducks are sold @ Tk. 250 per as culling birds. The average estimates of necessary costing per bird were at Tk. 175 in the laying period. **Calculate:** (i) Annual gross and net return per bird; (ii) Comment on the farm business. 4
3. a) Define prevention and control of animal diseases. Briefly discuss the ongoing animal disease prevention and controlling measures by DLS in Bangladesh. 1+5=6
b) Write down the limitations of DLS in this perspective. 4
4. a) Distinguish between program and project. Write down the characteristics of a project. 1+3=4
b) Briefly discuss the widely used the project appraisal techniques. 5
5. Write short notes on **(Any four)**: 2.5x4=10
(i) Gross Margin analysis; (ii) Sensitivity analysis; (iii) Loss-expenditure frontier;
(iv) Farm budgeting; (v) Market equilibrium model.

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery (DMS)
July-December Semester Final Examination 2021
Sub: Production diseases and udder health management; Code: PUM-602
Full Marks: 40; Time 2 hours
Answer any four (4) from the following questions

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|----|--|---|
| Q1 | a) Why subclinical mastitis is more important than clinical mastitis? | 4 |
| | b) Discuss Economic and social aspects of mastitis. | 6 |
| Q2 | a) What is udder health monitoring? | 1 |
| | b) Mention the parts of udder health monitoring in a dairy farm? | 3 |
| | c) Discuss udder health monitoring tools. How do they work? | 6 |
| Q3 | a) What is somatic cell? | 2 |
| | b) How herd prevalence of mastitis can be detected based on somatic cell count? | 3 |
| | c) Discuss interpretations of California Mastitis Test (CMT) | 5 |
| Q4 | a) What do you mean by production diseases. | 2 |
| | b) Discuss the effects of nutrition on immune function and disease resistance of the adult cows. | 8 |
| Q5 | a) What is milking routine? Why it is important to follow a milking routine? | 2 |
| | b) How you can strength the immunity of the cow to prevent udder infection? | 8 |

GOOD LUCK

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination, 2021
Sub: Advances in Reproductive Biotechnology
Course Code: ARB-602(T)
Total Marks: 40
Time: 2 hrs

Answer any 5 of the following questions

1. What are the ARTs? Write down the application of ARTs in livestock sector. 8
2. What are the principles you should follow to do MOET. Design a protocol for MOET in small ruminant. 8
3. Describe the surgical procedure of embryo collection and transfer in ewe. Mention the diseases could be control by MOET programme. 8
4. Mention the indications of super ovulation? What are the criteria you will consider for selection of donor and recipient for MOET? Explain briefly. 8
5. Mention the ways to detect post-embryo transfer pregnancy diagnosis in different animals. Describe the management of pregnant recipient animal til parturition. 8
6. Describe the method of ultrasound guided transvaginal oocyte pick-up. Formulate the culture media for ova and embryos. 8

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination, 2022
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

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|----|--|-----|
| 1. | Describe the importance of trace elements in cattle fertility and productivity. | 08 |
| 2. | a. Explain the lactation curve in dairy cattle. | 04 |
| | b. Write down the ideal BCS of dairy cattle at different stages of production | 04 |
| 3. | Describe the dairy heifer development and nutrition management plan. | 08 |
| 4. | a. How to manage irregular oestrus and anoestrus in cow under clinical condition? | 04 |
| | b. How to plan hygiene and sanitation program of intensively managed urban and semi urban dairy farms? | 04 |
| 5. | Describe newborn and calf health management strategy up to weaning. | 08 |
| 6. | Write short notes (any two) on: | 4×2 |
| | a. Vaccination to maximize bovine fertility | |
| | b. Reproductive and AI record keeping | |
| | c. Rational use of antimicrobial drugs in reproductive diseases | |

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination, 2021
Semester: July-December, 2021
Sub: Advanced in Gynaecology
Course Code: AGY-602(T)
Total Marks: 40
Time: 2 hrs

Answer any 5 of the following questions.

1. What does it mean by conceptus? How implantation occur in pregnant cow? Describe briefly the mechanism for implantation with mention the time required for implantation in cow, ewe, goat, mare, bitch and cat. 8
2. How you will identify the parturient animals? Sketch the hormonal profiles associated with parturition in cow. 8
3. Mention the necessity of termination of pregnancy in animals? What are the ways to terminate pregnancy in different gestational period in different animals? Describe briefly with mentioning the doses of hormone if need any for termination of pregnancy. 8
4. Enumerate the causes of infertility in dairy farm in our country. How will you treat the cows suffering from luteal insufficiency? 8
5. What are the common causes of dystocia? Describe briefly the procedure of correction of dystocia due to unilateral carpal flexion posture, nape presentation and hip flexion posture in cow. 8
6. Give the treatment of following cases:
 - i. uterine prolapse
 - ii. retained placenta
 - iii. uterine torsion
 - iv. true anestrous in cow

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Surgery, Semester: July- December, 2021
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 function and techniques used of Schirmer tear test. What are the ophthalmic stains used for diagnostic purpose of eye examination? What are the special diagnostic imaging techniques/tools used for eye examination? Write down their uses briefly. 10.0
2. Briefly describe the anatomy of eyelid including 3rd eyelid with picture. Mention the common surgical affections of eyelid in dog. Write down the indications of tarsorrhaphy and canthotomy with surgical procedure. 10.0
3. Describe the physiological control of intraocular pressure and diagnostic tools of intraocular pressure. What are the common clinical signs shown in glaucoma affected dog and common surgical treatment for glaucoma? Describe the surgical procedure. 10.0
4. Mention the common congenital and acquired conditions of canine lens with its anatomy. Describe the developmental stages and different types of cataract with etiology and surgical treatment. 10.0
5. Mention the composition of pre-ocular tear film with their source of production and their functions. Draw the nasolacrimal system of dog including their surgical affections and treatment procedure. 10.0
6. **Write short on any two of the followings** 10.0
 - i) 3rd eyelid flap and ketrplasty technique
 - ii) Enucleation procedure in different animals
 - iii) Describe different surgical procedure of Cherry eye.

Chattogram Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery

MS in Surgery, Semester: July- December 2021

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) Mention the total procedure to evaluate and prepare patient before general anesthesia. 5
b) Calculate the dose with sequential anesthesia protocol (at least two) of below mentioned agents for 30 kg dog of any major surgery- Ketamine, xylazine, oxygen, isoflurane, halothane, diazepam 5
2. a) Differentiate depolarizing and non-depolarizing NMBDs depending on clinical criteria. 5
b) Briefly describe the toxicity of barbiturates and local anesthetics. 5
3. a) Mention the dose and trade name of meloxicam, carprofen, ketoprofen, tolfenamic acid and flunixin meglumine for small animal pain management. 5
b) Briefly describe the breathing system of gaseous anaesthesia that are practiced in TVH, CVASU. 5
4. a) Mention the distinguishing characteristics of several types of cardiac failure. 10
5. a) Mention five essential drugs (with dose) used in management of cardiac arrest. 5
b) How will you diagnose early and late stage of shock? 5
6. a) Mention the acceptable and unacceptable techniques of euthanasia in different animals. 5
b) Plan the resuscitation protocol for an emergency respiratory distressed patient. 5

M.S. in Surgery; July-December Semester-2021

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) What can cause lameness in cattle? How will you test a case of lameness in cattle? 03
b) What steps can be taken to reduce the incidence of lameness in dairy farm? 03
b) Briefly describe the etiology, incidence, differential diagnosis and treatment of Interdigital necrobacillosis in dairy cattle. 04
2. a) What are the common causes and treatment procedures of Laminitis in animals? 04
b) What is the pH of rumen? "Ruminal acidosis lead to laminitis"- justify how? 03
c) Mention the five predisposing factors for laminitis in animals? 03
3. a) Define hygroma in cattle? Carpal and tarsal hygromas are the most frequently diagnosed in cattle- why? 03
b) What are the causes, symptoms and treatment of hygroma in dairy cows? 04
c) "A hygroma is a false bursa".....explain why? 03
4. a) What are the causes, symptoms and treatment of hip dislocation in cattle? 03
b) What is the difference between hip dislocation and hip subluxation? 03
b) Describe briefly about the treatment of upward fixation of patella in a milking cow. 04
5. Write short notes on *any two* of the followings:- 2x5=10
 - (a) Joint ill in calf
 - (b) Spastic paralysis in dog
 - (c) Lameness scoring in dairy cows
 - (d) hoof trimming in cattle

M.S. in Surgery; July-December Semester-2021

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.)

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

1. a) Define Nuclear Medicine? Mention the two main forms of nuclear medicine used in veterinary medicine. 04
b) What radioactive materials are commonly used in nuclear medicine? 03
c) Is ultrasound a nuclear medicine? How does the radiation be injected into the body? 03
2. a) What is the Gamma camera used to detect? How does a Gamma camera produce an image? 04
b) What do you mean by PET and SPECT? "PET scan is more accurate than SPECT scan"..... explain why? 03
c) How are images produced in nuclear medicine? How is nuclear medicine different from radiology? 03
3. a) What are the uses of x-rays in veterinary practices? Write an example of artificial source of X-rays. 03
b) What do you mean by radiation and radioactive materials? What are the major biological effects of radiation? 04
c) What are acute effects of radiation damage in animals? 03
4. a) What is electrotherapy in physiotherapy? Briefly describe the four stages of rehabilitation in animals 03
b) What do you mean by physiotherapy modality? What is the difference between physical therapy and rehabilitation? 03
c) Briefly describe the equipments that are commonly used by a physiotherapist? 04
5. Write short notes on *any two* of the followings:- 2x5=10
 - a) Tracers in radiotherapy
 - b) The Gamma camera
 - c) Use of Microsphere particles in medical science
 - d) Use of radioisotope in nuclear medicine

Chattogram Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery

MS in Surgery, Semester: July-December 2021

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 chemotherapeutic management of lymphoma, osteosarcoma, and mammary carcinoma in dogs.
- b) When and how you should use prednisolone for different carcinomas in dogs and cats?

Question 2 5x2 = 10

- a) What is cryptorchidism? How will you perform cryptorchid castration in dogs and cats?
- b) What is lumpectomy? Write down the indications and surgical technique of caudal lumpectomy in an adult dog.

Question 3 5x2=10

- a) How will you treat hyperkalaemia in a 3 kg adult cat suffering from urinary obstruction?
- b) Write down the cystostomy technique in a 20 kg male dog.

Question 4 5x2=10

- a) What is aural hematoma? When and how should you use teat canula for aural hematoma management in dogs?
- b) How will you rehydrate during surgical removal of intestinal foreign body in a cat?

Question 5 5x2=10

- a) Write down the procedure of gastrotomy in a 20 kg dog.
- b) What is neutering? What precaution you should consider during early neutering in dogs and cats?

Question 6 5x2=10

Write short note of any two

- a) Transconjunctival enucleation in a dog
- b) Serosal patching
- c) Intestinal anastomosis



Chattogram Veterinary and Animal Sciences University
Department of Medicine and Surgery
MS in Medicine
Semester: July – December' 2021
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) What do you understand by emerging and re – emerging diseases of Zoo Animals and Wild Animals? Enlist five emerging and re – emerging diseases of Zoo Animals and Wild Animals. (02 + 02) = 04
(b) Write down the role of Field Veterinarian in the Protected Wildlife Region in Bangladesh. 06

2. (a) A dead Giraffe came to you for post mortem examination. On post – mortem examination, you saw corrugated lesions on ceco – colic junction. What is your presumptive diagnosis? What is your advice to owner for rest of the healthy ones? (01 + 04) = 05

(b) A dead deer of 5 months old deer came to you with history of lameness. On post mortem examination, you saw stripped lesion over myocardium. What is your presumptive diagnosis? What is your advice to owner for rest of the healthy ones? (01 + 04) = 05

3. Describe the etiology, transmission, clinical signs, pathognomic post – mortem lesions, diagnosis, treatment, prevention, control, and zoonotic importance of Anthrax in Asian Elephant (*Elephas maximus*). 10

4. (a) What do you mean by “Mycobacterium Avium Complex (MAC)” in Tapir? Describe the etiology, clinical signs, diagnosis and treatment of MAC in Tapir. (01 + 04) = 05

(b) Describe the etiology, clinical findings, treatment and control of Pouch infection in Koala. 05

5. Mention the upper respiratory tract diseases of tiger. Write down the etiology, route of infection, clinical signs, diagnosis and treatment of Feline pneumonitis in the Royal Bengal Tiger. (01 + 09) = 10

6. (a) Tabulate 05 (Five) bacterial diseases of Reptile with etiology, clinical signs and therapy. 05

(b) Describe the etiology, transmission and clinical signs of Gray patch disease in the Gree sea turtle (*Chelonia mydus*). 05

– GOOD LUCK –

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
MS in Medicine Final Examination-2021
Semester July-December

Subject: Fluid Therapy and Blood Transfusion
Course Code (FBT-602)

Full Marks: 40; Time 2 Hours

Answer any five (05) from the following questions

1. a) Write down the role of cell membrane in acid-base-fluid balance. 04
b) Write down the common cause of acid base imbalance in body fluids 04
2. a) What do you mean by crystalloid, colloid, hypertonic, isotonic and hypotonic fluids? Give examples with their uses? 04
b) Write down the composition of commercially available fluids with their indications in animals? 04
3. a) How will you evaluate and monitor patients receiving fluid therapy in dogs and cats? 04
b) How will you determine the routes of fluid administration in dogs and cats? 04
4. a) Outline the fluid therapy in diarrheic calves. 04
b) Discuss about contraindications of different types of fluid. 04
5. a) Describe blood groups in cattle, goat, dog and cat. 04
b) What do you mean by transfusion reactions? Is cross matching of donor and recipient's blood essential before each transfusion? 04
6. a) A 15 week old, 6.8 kg puppy has been admitted with vomiting and diarrhoea that have been present for 2 days. The puppy is 6% dehydrated which needs to be corrected over 24 hours. What fluids will be used initially for the puppy and what drip rate would be used? 04
b) Is there any negative impact of excessive fluid administration? 04

Chattogram Veterinary and Animal Sciences University
Department of Medicine and Surgery, Faculty of Veterinary Medicine
MS in Medicine, July- December semester Final Examination 2021
Course Title: Food animal Medicine-II (FAM-602)
Full Marks: 40.0; Time: 2 hr

(Figure in the right margin indicates full marks, Answer any four questions)

1. a. Define Anaphylaxis. Write down the line of treatment of Anaphylaxis in food animal. 3.0
b. Make a presumptive diagnosis and line of treatment of a 300 kg bull with a history of excessive ingestion of ripen paddy. 3.0
c. Write down the cardinal signs of following conditions in ruminant- 4.0
 Vagus indigestion
 Abomasal displacement
 Jaundice
 Pneumonia
2. a. Enlist the pathognomonic signs of Urticaria, cataract, otorrhoea and foot rot. 4.0
b. Suggest treatment with advices for the following conditions- for 20 kg of goat- 4.0
 1. Conjunctivitis
 2. Aspiration pneumonia
c. How will you differentiate Myositis from Myopathy? 2.0
3. a. Write down the abnormal constituents of urine. 2.0
b. Sketch the formation of obstructive urolithiasis in ruminants. 4.0
c. Prescribe treatment for 30 kg goat diagnosed with urolithiasis. 4.0
4. a. Define metabolic disease. Why high yielding dairy cow is more prone to metabolic diseases? 3.0
b. Mention the risk factors that causes azoturia and suggest the line of treatment of it for horse. 4.0
c. Enlist the differential diagnosis of grass tetany and post-parturient haemoglobinura. 3.0
5. Write short notes on the following- 5x2=10
 a. Fibrous osteodystrophy
 b. Shock
 c. Dermatitis
 d. Epistaxis
 e. Polioencephalomalacia

Chattogram Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: July-December 2021
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) Describe different forms of rabies in pet animals? How will you control this disease? **06**
(b) Write about the vaccination of dogs and cats. **04**
2. Write down the etiology, clinical signs, diagnosis, treatment and control of feline plague. **10**
3. (a) Write down the etiology, clinical signs and treatment of canine leptospirosis. **04**
(b) Write the consequences of accidental acetaminophen administration in cats. How can you manage this situation? **06**
4. Write down the etiology, different clinical forms, diagnosis, treatment and control of canine plague. **10**
5. (a) What are the zoonotic significances of toxoplasmosis? **02**
(b) Write down the etiology, clinical signs, treatment and control of canine babesiosis. **08**
6. Write short notes on Tropical canine pancytopenia and Enterotoxemia in rabbits. **10**