

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final examination-2016
Semester-January- June
Course title: Advances in Obstetrics
Course Code-AOB-601, Credit: 2
Total marks: 40, Time: 2 hour

(Answer any eight questions which have equal marks five)

- 1) Define Theriogenology and its importance in livestock. Describe the mechanisms of Maternal Recognition of pregnancy in Sheep, Mare and Sow.
- 2) A four year age cow admitted in Teaching Veterinary Hospital with the history of anoestrus. What are the physiological causes and how will you diagnose it?
- 3) What is the importance of induction of parturition? How will you perform induction of parturition in different species?
- 4) A cow admitted in SAQ teaching Veterinary Hospital having dystocia, how will you manage this condition?
- 5) What are the causes of abortion, how will you diagnose and give treatment for preventing abortion in future?
- 6) Write down the indication and procedure of cesarean section in a cow with pre and post operative care.
- 7) Write down the causes and management of utero-vaginal prolapse in a cow.
- 8) What are the signs approaching parturition in cow and mare? Briefly describe the stages of parturition.
- 9) Write down the diagnosis and management of fetus in a cow due to:
(a) Mummified fetus and (b) Schistosoma reflexus
- 10) Write short notes on any two of the following:
(a) Retain fetal membrane (b) Right lateral deviation of fetal head in cow (c) relative oversize of fetus.

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final Examination, 2016
Subject: Advances in Andrology and Male Infertility
Course Code: AMI-601(T)
Total Marks: 40, Time: 2 hours

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

1. a. What is semen? Draw a fine structure of spermatozoa. 5
b. Describe briefly the mechanism of production of spermatozoa in animal body. 5
2. a. Define the biochemical and functional evaluation of semen. 5
b. Describe the methods of bull semen preservation. 5
3. a. How do you improve the fertility in livestock relating male defaults in Bangladesh? 5
b. Classify the semen abnormalities with their examples. 5
4. a. What are the importance of testicular biopsy in animal? Describe briefly the methods of testicular biopsy. 5
b. Describe briefly the test of fertility of spermatozoa. 5
5. Write short note on any two of the following 5×2
 - a. Semen borne diseases
 - b. Testicular disorders
 - c. Certification of bull for breeding

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Theriogenology Final examination-2016
Semester-January- June
Course title: Reproductive Hormones
Course Code-RDH-601, Credit: 2
Total marks: 40, Time: 2 hour

(Answer any five questions which have equal marks eight)

- 1) Define and classify hormone. What are the importances of hormone in relation to animal reproduction?
- 2) Write down the clinical use, dose, route and contraindication with the name of market product of following hormones- GnRH, LH, PGF₂ α , P₄ and E₂.
- 3) Describe the biosynthesis of steroid hormones in animal.
- 4) Write down the hypothalamus-pituitary and gonadal axis in hormonal regulation of spermatogenesis and oogenesis in male and female animal.
- 5) Briefly describe about the changes in plasma hormone concentrations during bovine estrus cycle.
- 6) How will diagnosis of pregnancy in cow and mare by biologic and chemical test for hormone?
- 7) Write short notes on any two of the following:
 - (a) Sketch the diagram of endocrine changes before and during parturition.
 - (b) Endocrinological changes in cow and mare during pregnancy.
 - (c) Hormonal method of controlled breeding system.

M.S. in Surgery; January-June Semester-2016

Subject: Large Animal Surgery (Theory)

Course code: LAS 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) Write down the general principles of large animal surgery? 03
(b) Describes about the four main determinants for surgical site infection. 04
(c) How will you examine a ruminant surgical patient before surgery? 03
2. (a) What are the common surgical affections of gastro-intestinal system? How will you correct a left sided abomasal displacement in cow? 04
(b) Explain the surgical procedure for vasectomy and caudectomy in large animals. 03
(c) Classify hernia according to condition of the contents. 03
3. (a) Write down the etiology, clinical signs, diagnosis and treatment for atresia coli in Calves. 03
(b) Describe the various technique of intestinal anastomosis used in veterinary surgery. 04
(c) How will you perform caecotomy in cattle? Mention the post-operative management of caecotomy of cattle in field condition. 03
4. (a) What are the causes and treatment for upward patellar fixation in cattle? 04
(b) Why should you hesitate to place a respiratory-distressed calf under general anesthesia before performing a tracheotomy? 03
(c) Why should rumen tympany be reduced via a stomach tube just before rumen fistula surgery? 03
5. (a) What four basic anatomic structures are commonly manipulated to produce a teaser bull? 03
(b) What are the advantages of a cesarean section performed in the left paralumbar flank area compared with one performed in the same area on the right side? 04
(c) How should the placenta be handled after a cesarean section? 03
6. Write short notes on *any two* of the followings:- 2x5=10
 - (a) Basic requirements for successful teat surgery
 - (b) Trimming of claws in cattle
 - (c) Green stick fracture of tarsal bone in a goat
 - (d) Joint flushing for septic arthritis.

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
M. S. in Surgery, Semester: January-June, 2016
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 of the followings)

1. Describe the phases of bone healing. What are the conditions usually influencing the fracture healing both in large and small animals? 10.0
2. Enumerate the biomechanics to fracture etiology, reduction and fixation. 10.0
3. Mention the common orthopaedic affections in dogs. How will you diagnose the different kinds of patellar luxation in dog? Briefly describe the correction techniques of patellar luxation. 10.0
4. Write down the special orthopaedic examination in case of hip dysplasia and cruciate ligament rupture in case of dog. Mention different kinds of bone grafts with indications of cancellous and cortical bone graft. 10.0
5. What are the techniques usually applied for different kinds of fractures. Describe briefly some of them with indications. 10.0
6. Enumerate the different surgical and non surgical management techniques in case a dog suffering from hip dislocation and hip dysplasia. 10.0

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
M. S. in Surgery, Semester: January-June, 2016
Subject: Large Animal Anaesthesiology
Course Code: LAA 601; Credit: 2
Total Marks: 40
Time: 2 (Two) Hours

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

1. What are the preparations necessary before anaesthesia in case of large animals and why? 10.0
Mention the functions of different parts of inhalation anaesthetic machine.
2. Write down in brief with indications and techniques of the different nerve block and regional anaesthesia of a cow. 10.0
3. Write down the common local anaesthetics, sedatives and general anaesthetics used in large animals with their dose, onset of action, anaesthetic duration and their effects on different systems. 10.0
4. Write down the advantages and disadvantages of inhalation anaesthesia. Describe the different kinds of inhalation anaesthetics and breathing circuits. 10.0
5. a) Mention the possible postanesthetic complications in large animals of general anaesthesia. Write down the prevention and treatment of such complications? Write down the ventilation techniques in large animals. 10.0
6. Write down in brief the anaesthetic procedure of following conditions- gid disease in a goat, umbilical hernia in a calf, penis amputation in a bull, enucleation of eyeball in a cow, dystocia in a goat, limb amputation in a calf, colic operation in a horse, udder amputation in a goat, rumenotomy in cow, dermoid cyst operation in calf. 10.0

M.S. in Surgery; January-June Semester-2016
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) Mention the classification of anaesthesia in animals. 03
(b) What should be monitored for respiratory and cardiovascular systems during general anaesthesia in animals? 04
(c) Briefly mention the maintenance of airway during anaesthesia for zoo, wild and laboratory animal practices? 03
2. (a) When is fluid therapy indicated in animals? 02
(b) What pre-existing disease processes or conditions typically associated with electrolyte abnormalities in zoo, wild and lab animals? 05
(c) What fluids should be administered to patients with sodium abnormalities and how fast can be administered in primates of wild animals? 03
3. (a) What are the principles of pain management in animals? 03
(b) Write down the capture and restraint techniques for different species of birds? 04
(c) Write down the objectives of CPR in wild animals. Mention about the six steps of CPR adapted from the human resuscitation council guidelines. 03
4. (a) Mention about the precapture considerations for wild and laboratory animals? 04
(b) Mention the types of dart used in zoo. 03
(c) Write down about the mechanism of drug delivery in blow darts? 03
5. (a) What are the equipment and methods used for restraint the venomous snake? 04
(b) Write about the venipuncture and intravenous catheterization for turtles? 03
(c) Mention the name and dosage of three recommended drugs for immobilization of monkey and gibbon in a zoo? 03
6. Write short notes on *any two* of the followings:- 2x5=10
 - a) Capture myopathy.
 - b) Anatomical and physiological considerations during Bird anaesthesia.
 - c) Premedicative agents for rodents.
 - d) Capture of displaced Sumatran Rhinoceroses.

Chittagong Veterinary and Animal Sciences University
Department of Medicine and Surgery
MS in Epidemiology
January-June Semester Final Examination 2016
Course title: Research Methodology
Course code: REM-601
Full marks: 40, Time: 2 hours

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

1. a. Enlist the 'measures of frequency' and 'measures of association' that can be estimated in different study designs. Explain why we cannot measure all different kinds of measures in all study designs. 6
- a. Write down 2 differences between descriptive study designs and analytical study designs. 2
2. a. Write down the differences between 'strata' and 'cluster'. 2
- b. Surgeons perform a new surgical procedure on 10 patients and report their outcomes. What kind of study is this? Justify your answer. 3
- c. What do you mean by 'loss to follow-up'? In which study design(s) we might encounter this problem? 3
3. a. List the characteristics of experimental study designs. 2
- b. Construct an experimental study design to measure the vaccine efficacy of a newly introduced vaccine against PPR in goats. 6
4. a. Suppose you have a study population of 4000 dairy cows and your estimated sample size is 250 cows. Describe the procedure of selecting the cows using systematic random sampling. 4
- b. What is sampling error? Describe with an example. 4
5. a. What are the basic differences between nested case-control study and case-cohort study design? 4
- b. In case-crossover study design, selection bias is minimized and time invariant host related confounder variables are controlled. Explain how? 4
6. a. Case-control study design is subjected to selection bias and recall bias. What measures you should take to minimize these biases? 4
- b. 'To study rare exposures, case-control study design is not suitable' – justify this statement. 2
- c. Explain 'blinding' in context of randomized controlled trial. 2

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: January-June 2016
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) What is biosecurity? Describe the factors influencing biosecurity in poultry farm. **08**
(b) Name six vertically transmitted diseases in poultry. **02**
2. Write down the etiology, clinical signs, postmortem lesions, treatment, prevention and control of Gumboro disease. **10**
3. (a) How can you differentiate between Marek's disease and Avian Leukosis. **05**
(b) Write short notes on Bumble foot disease and Pullorum disease. **05**
4. Write down the etiology, clinical signs, postmortem lesions, treatment, prevention and control of Duck plague. **10**
5. (a) Which subtypes of Avian influenza are highly pathogenic for chickens? **01**
(b) Write down the clinical signs, postmortem lesions, treatment, prevention and control of Avian influenza. **09**
6. Describe Coccidiosis and Brooder pneumonia in chickens. **10**

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery
MS in Medicine
Semester: January-June 2016
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) What is biosecurity? Describe the factors influencing biosecurity in poultry farm. **08**
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Chittagong Veterinary and Animal Sciences University

Faculty of Veterinary Medicine

Department of Medicine and Surgery

MS in Medicine

Semester: January – June 2016

Subject: Food Animal Medicine I

Course Code: FAM 601; Credit: 2

Total Marks: 40

Time: 2 (Two) Hours

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

1. a. Describe the etiology of bovine mastitis in details. **02**
b. Describe the strategies for therapy and prevention of mastitis. **05**
c. What are the economic significance of mastitis? **03**

2. Write down the cause, important clinical signs, pathognomonic post – mortem lesions, diagnosis, treatment, prevention and control of the following diseases: **05 X 2 = 10**
(i) Anthrax.
(ii) PPR.

3. a. What are the diseases that can be confused with brucellosis in pregnant cows? How would you differentiate them? **06**
b. A cow of 300 kg body weight is brought to the Large Animal Unit of SAQTVH, CVASU which is suffering from fever (106⁰F) and lameness. Clinical examination reveals the swelling of peripheral lymph nodes. What's your presumptive diagnosis? Write a prescription for the patient. **04**

4. a. Which helminthic disorder is the major cause of high mortality in buffalo calf? How would you treat and prevent the condition? **05**
b. Write down the clinical signs, diagnosis and treatment of nasal schistosomiasis in cows under field condition. **05**

5. a. Define wasting disease with example. Write down the important clinical signs and pathognomonic post – mortem lesions of tuberculosis (TB) and John's disease (Para TB) in cattle. How would you clinically manage them? **07**
b. Differentiate dermatophilosis from dermatophytosis. **03**

6. Write short notes on the following: **05 X 2 = 10**
(i) Colibacillosis in goat.
(ii) Rabies in cattle.

Chittagong Veterinary and Animal Sciences University
MS in Medicine Semester Final Examination- 2016
Course Title: Zoonotic Medicine (Theory)
Course Code: ZOM-601
Department of Medicine & Surgery
Time: 2 Hours; Full Marks: 40

Answers any eight (08) questions (5 marks in each question)

1. Focus on the disease burden of human rabies in association of dog bite in the Southeast Asia region.
2. What do you mean by “Mycobacterium tuberculosis complex”? “Tuberculosis is a most devastating infectious disease worldwide” to what extent you may agree or disagree.
3. Briefly discusses on the present status and control plan of tuberculosis in Bangladesh.
4. What is bioterrorism? Explain your opinion, whether you support bioterrorism or not. Point out the time events of anthrax used as bioterrorism.
5. Briefly discusses the ecological cycle of influenza A viruses. Why swine is called mixing vessel for influenza A virus?
6. Explain your views on zoonosis, and zoonotic diseases transmission.
7. Highlights the interim guidance: testing algorithm for pregnant women with history of travel to an area with Zika virus transmission, with/without clinical symptoms.
8. Briefly discuss the speculation of “zika virus infection and microcephaly in neonate”.
9. Focus on the chronology of outbreaks due to Nipah virus in Bangladesh. Briefly describe the interventions that could adopt to prevent Nipah virus infection in human.
10. Describe the natural reservoir and transmission of Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).

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

Semester: January – June 2016

Subject: Production Diseases of Dairy Animals

Course Code: PDD 601; Credit: 2

Total Marks: 40

Time: 2 (Two) Hours

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

1. a. Define Production Diseases. How do you manage them? **04**
b. Define ketosis. Write down the etiology, clinical findings, diagnosis, treatment, prevention and control of ketosis in cattle. **06**
2. What is Pregnancy Toxemia in ewes? Write down the synonyms, etiology, clinical findings, lesions, diagnosis, treatment, prevention and control of Pregnancy Toxemia in ewes under field condition. **10**
3. Define Downer cow syndrome. Describe the etiology, clinical findings, lesions, treatment, prevention and control of Downer cow syndrome in relation to animal welfare considerations. **10**
4. Define Fatty Liver Disease in cattle. Write down the etiology, clinical findings, diagnosis, treatment, prevention and control of Fatty Liver Disease in cattle. **10**
5. a. What is gestation? Mention the common causes of termination of gestation in dairy cattle of Bangladesh perspective. **05**
b. Classify mastitis. Write down the line of treatment of acute mastitis of a cow which is brought to the Large Animal Unit of SAQTVH, CVASU. **05**
6. a. What is parturition? Describe the parturition of bovine along with function of relevant hormones. **05**
b. What are the reproductive hormones for dairy cattle? Write down their mode of action in details. **05**

– GOOD LUCK –

Chittagong Veterinary and Animal Sciences University
Faculty of Veterinary Medicine
Department of Medicine and Surgery (DMS)
January-June Semester Final Examination 2016
Sub: Veterinary Dermatology; Course Code: VED-601
Full Marks: 40; Time 2 hours
Answer any four (4) from the following questions

- | | | | |
|---|---|---|---|
| 1 | a | What is Lumpy skin disease in cattle? Why it is so important? | 3 |
| | b | Discuss different aspects of lumpy skin disease | 7 |
| 2 | a | Enumerate congenital defects of skin | 3 |
| | b | Describe Etiology, pathogenesis, clinical findings and treatment of urticaria in horses | 4 |
| | c | What are the principles of treatment of skin diseases | 3 |
| 3 | a | Discuss about sex hormone imbalances | 6 |
| | b | Write down the clinical presentations and treatment of canine hyperadrenocorticism. | 4 |
| 4 | a | What is bacterial pyoderma and how does it develop in dogs? | 3 |
| | b | Classify bacterial pyoderma. Describe diagnosis and its management | 7 |
| 5 | a | Write down the management allergic skin diseases in dogs | 5 |
| | b | How will you treat defects in cornification of canine skin. | 5 |

Good Luck