

Chattogram Veterinary and Animal Sciences University

DVM 4th year 2nd Semester Final Examination 2020

Subject: Pet and Companion Animal Medicine (Theory)

Course Title: PAM-402 (T)

Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer **Three (3)** questions from each section where question No. **01** is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Write down the deworming and vaccination schedule for dogs and cats. 4
b) Enlist the commonly used anthelmintics and ectoparasiticides for dogs and cats. 2
c) Mention the effective antibiotics for respiratory infections in dogs and cats. 2
2. a) Illustrate the causes of bloody diarrhea in dogs. 3
b) Write down the differential diagnosis of canine parvovirus infection in dogs. 4
c) What is FIP in cats? How will you diagnose and treat the FIP in cats. 2
3. a) List the important viral diseases of dogs and cats. What do you mean by snuffles in rabbit? Briefly describe the clinical signs, diagnosis and treatment of snuffles in rabbit. 5
b) What is scabies? What are the agents causing scabies in pet animals? 2
c) Enlist the antibiotics that are contraindicated to use in rabbits. 2

SECTION-B

5. a) Write down the names of common GI tract disorders in dogs and cats. Enumerate the line of treatment of gastritis in cats. 4
b) Briefly describe the clinical management of paracetamol poisoning in cats. Write a prescription for hepatic jaundice in 4 years old tom cat. 3
c) Define 'kennel cough'. What organisms incriminated this disease? 2
6. a) List the important diseases of guineapig and hamster. Write down the treatment protocol of enteritis associated with bacterium in hamster. 3
b) List the diseases of pet having zoonotic significance. Write down the clinical signs, diagnosis and treatment of toxoplasmosis of cats. 3
c) How will you differentiate leptospirosis from infectious canine hepatitis clinically? 3
7. Write short notes on any three- 3x3=9
a) Ear canker in rabbits and flea allergic dermatitis in cats
b) Hook worm infestation in dogs
c) Diabetes mellitus in cats
d) Malassezia dermatitis in dogs
e) Tyzzer disease in rabbits

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2020
Subject: Meat Science and Animal by-products Technology (Theory)
Course Title: MAT-402 (T)
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **Three (3)** questions from each section, where question No. **1** and **5** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

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|----|----|-------------------------------------------------------------------------------------------|---|
| 1. | a) | Mention the importance of developing meat industry in Bangladesh. | 4 |
| | b) | Define muscle and meat. Briefly describe the microscopic structures of a muscle cell. | 4 |
| | c) | Illustrate the meat consumption habits in different parts of the world. | 3 |
| 2. | a) | What is animal by-products? Enlist the slaughterhouse by-products with their products. | 4 |
| | b) | What is wool? Mention the salient points of wool found from our native sheep. | 4 |
| | c) | Why is wool the best clothing fabric? Give your opinion. | 4 |
| 3. | a) | Categorize the processed meat products with their typical examples. | 4 |
| | b) | Enlist common seasoning used in processed meats with their rate of doses. | 4 |
| | c) | Why meat is called as an ideal food? | 4 |
| 4. | a) | Enlist the major microorganisms causing spoilage and poisoning of meat and meat products. | 4 |
| | b) | What is meat co-products? How will you prepare "chicken nuggets?" | 4 |
| | c) | Describe the monitoring procedure of cleaning and sanitation of a meat plant. | 4 |

SECTION-B

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|----|-----------------------------------|-----------------------------------------------------------------------------------------------|--------|
| 5. | a) | Explain why the carbohydrate content of muscle is important for ensuring the quality of meat. | 4 |
| | b) | Describe "Cold shortening". How this problem can be prevented? | 4 |
| | c) | What is conditioning of meat? Discuss the mechanism of conditioning. | 4 |
| 6. | a) | Write down the rules of Jewish ritual slaughter with advantages and disadvantages. | 4 |
| | b) | Outline the dressing method of poultry. | 5 |
| | c) | Write down the characteristics of different yield grades of beef carcass. | 3 |
| 7. | a) | Explain how meat protein is better than plant protein from nutritional point of view. | 3 |
| | b) | Differentiate between red and white meat with their effects on human health. | 5 |
| | c) | Discuss the physical method of differentiation of meat from different species | 4 |
| 8. | Write short notes on (any three): | | 3x4=12 |
| | a) | DFD meat. | |
| | b) | Beef Primal cuts. | |
| | c) | Smoking of meat. | |
| | d) | HACCP. | |

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2020
Subject: Farm Animal Medicine-II (Theory)
Course Title: FAM-402 (T)
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **Three (3)** questions from each section, where question No. **1** and **5** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

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|----|-------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1. | a) How will you diagnose verminous aneurism in horse? | 2 |
| | b) What are the clinical sign and treatment of ascariasis in buffalo calves? | 2 |
| | c) Write down a prescription in 250 kg cow suffering from verminous pneumonia. | 3 |
| | d) Write down the clinical findings and treatment of summer sores in horse. | 4 |
| 2. | a) What do you mean by polyarthritis? How will you treat a case of bovine keratoconjunctivitis of seven days duration? | 3 |
| | b) Write down the causal agents and treatment of dermatophilosis and dermatophytosis in nanny goat. | 3 |
| | c) What do you mean by nodule worm disease? Mention its etiology, clinical signs and pathologic significance. | 3 |
| | d) Write down the diagnosis and treatment of monieziasis in calves. | 3 |
| 3. | a) Illustrate the epidemiology, clinical sign and diagnosis of coccidiosis in calf | 3 |
| | b) How mycoplasmal mastitis is transmitted in dairy farm? | 2 |
| | c) Discuss the zoonotic risks of Q-fever in human. | 3 |
| | d) How will you diagnose and control cutaneous myiasis in cattle? Write down the effect and control strategies of tick infestation. | 4 |
| 4. | Mention the line of treatment of the following diseases (any four) | 4x3=12 |
| | a) Nasal schistosomiasis in cow | |
| | b) Dourine in horse | |
| | c) Coccidiosis in calf | |
| | d) Giardiasis in calf | |
| | e) Fascioliosis in cow | |

SECTION-B

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|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 5. | a) Explain Steatorrhea. Discriminate between acute and chronic fascioliasis. | 3 |
| | b) What is Deg Nala disease? Describe the epidemiology, clinical sign and treatment of this disease in buffalo. | 4 |
| | c) Write down the etiology, clinical findings and line of treatment of babesiosis in cattle. | 4 |
| 6. | a) List parasitic diseases of horse with etiology. How will you diagnose and treat large redworm infestation in horse. | 4 |
| | b) Tabulate the generic name, dose, route of administration and user remarks of trypanocide drugs. Differentiate between schistosomiasis and rhinosporidiosis. | 4 |
| | c) Describe the symptoms of hump sore in cattle. How will you diagnose toxoplasmosis in sheep and goats? | 4 |
| 7. | a) A post-partal doe with 30 kg body weight showing symptoms of vulvar swelling. Clinical examination found infestation of fly larvae. What is your diagnosis? Write down the prescription for that animal. | 4 |
| | b) Compare dipping vs systemic therapy for effective control of pediculosis. What are the possible risk of dipping and write down the measure to avoid them. | 4 |
| | c) Interpret the results of the following tests for anaplasmosis in cattle: Giemsa blood flim (negative), ELISA (positive) and PCR (negative). Write down the line of treatment of urea poisoning in ruminants. | 4 |
| 8. | Short notes on (any three) | 3x4=12 |
| | a) Parasitic gastro-enteritis in ruminants | |
| | b) Mycoplasmal pneumonia in swine | |
| | c) Tick paralysis in animal | |
| | d) Burns and scalds of farm animal | |

Chattogram Veterinary and Animal Sciences University

DVM 4th year 2nd Semester Final Examination 2020

Subject: Food Hygiene and Veterinary Public Health (Theory)

Course Title: FVH-402 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer five (5) questions from each section. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Define meat hygiene. Write down the different steps and importance of pre-slaughter treatment of food animals. 4.0
b) Briefly describe the chronological development of meat hygiene 3.0
2. a) Outline the roles of 'shochet' and 'shomer'. Explain the 'halal method' of slaughtering animals. 2+2=4
b) Discuss the abattoir effluent treatments. 3.0
3. a) Define veterinary public health. Point out the biomedical functions of public health veterinarians. 1+2=3
b) Categorize zoonoses according to etiology and direction of transmission. 4.0
4. a) What is stunning? Mention different stunning methods and describe the best stunning method for meat animals. 4.0
b) Define shrink. Write down the principles of ante-mortem examination and slaughtering of meat animals. 3.0
5. a) Judge the carcass condition in prospect of public health. i. BQ ii. Rabies iii. FMD iv. Anaplasmosis v. Coenurusis vi. Jaundice vii. Lumpy skin disease viii. Brucellosis 4.0
b) Define BOD₅. How will you manage abattoir effluent? 3.0
6. a) Define QA and QC. List the groups of bacteria important in food microbiology. 2+3=5
b) Summarize the principles of food preservation. 2.0

SECTION-B

7. a) Apprise the different natural inhibitions and growth factors are available in following food; i. egg ii. Milk iii. Honey iv. Meat v. Meat vi. Fruits 4.0
b) Tabulate the different food preservatives with their maximum dose and target organisms. 3.0
8. a) Define thermoduric. Classify the different thermoduric groups. 3.0
b) Write down the roles of pH, a_w and nutrient content of different foods for growth of microorganisms. 4.0
9. a) What is canning? Briefly describe the bacterial and fungal spoilage of table egg. 5.0
b) Write down the toxin and conditions necessary for botulism in human. 2.0
10. a) Suppose you are appointed as public health officer in Khulshi thana. Suddenly large number of school children and few older people hospitalized with nausea, vomiting and diarrhoea with abdominal cramp. What is your role and how will you investigate the case? 5.0
b) Define CCP. Explain the ropiness of the milk. 2.0
11. a) Write down the differences between food borne infection and intoxication. 3.0
b) What does BSTI and ICMSF stand for? Explain the role of different national organization food control and licensing. 4.0
12. Write down the short note for followings: (any two) : i. HACCP ii. Fermented food iii. Spoilage of canned food 3.5×2 = 7

Chattogram Veterinary and Animal Sciences University

DVM 4th year 2nd Semester Final Examination 2020

Subject: Andrology and Clinical Artificial Insemination (Theory)

Course Title: ACA-402 (T)

Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer **Three (3)** questions from each section, where question No. **04** is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Draw a reproductive structure of a bull with marking its different organs. Mention its differential points with horse. 4
b) Define semen. Summarise the composition of seminal plasma. 2
2. a) How do you understand a bull became puberty and sexual maturity? Describe briefly. 4
b) Enumerate the factors affecting the onset of puberty in male animals. 2
3. a) What are the normal parameters for semen quality in bulls? How will you determine motility % of spermatozoa in a semen sample 4
b) Write the factors affecting semen quality in breeding bulls. 2
4. a) Compare the benefits of AI with natural mating. 2
b) List different AI techniques used in ruminants. Perform AI in a cow describing its methodological steps chronologically. 3

SECTION-B

5. a) Write down the characteristics of an ideal diluent used for cryopreservation of semen. Write the protocol for cryopreservation of semen. 4
b) Calculate the required volume of semen diluent when collected volume of semen is 5 ml with existing concentration $2000 \times 10^6/\text{ml}$ and desired concentration $20 \times 10^6/\text{ml}$. 2
6. a) Certify a bull for semen collection to AI. 3
b) Make a protocol for record keeping for a dairy cow after AI. 3
7. a) Write a short note on male infertility. 4
b) Prescribe any two of the following cases- 2x1=2
 - i. Seminal vesiculitis in a bull of 350 kg body weight.
 - ii. Balanoposthitis in a buck of 50 kg body weight.
 - iii. Orchitis in a cat.
8. a) Write down the artificial insemination time and semen deposition place of female genital tract in cows, does, ewes and bitches. 4
b) Describe the mechanism of spermatogenesis in a bull. 2

Chattogram Veterinary and Animal Sciences University

DVM 4th year 2nd Semester Final Examination 2020

Subject: Agricultural Extension (Theory)

Course Title: AEX-402(T)

Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer any three (3) questions from each section where question 5 is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Briefly discuss about Agricultural Extension. 2.0
b) "Extension is a continuous educational process where both learner and teacher contribute and receive"-Justify the statement. 4.0
2. a) Define motivation. 2.0
b) Discuss Maslow's need theory of motivation with its implication in livestock extension work. 4.0
3. a) What do you mean by extension organization? Write the features of an extension organization. 3.0
b) Pointed out the duties and responsibilities of a subject matter specialists. 3.0
4. a) "Good leaders are made not born"-Justify the statement. 3.0
b) Make comparison between professional and local leaders? 3.0

SECTION-B

5. a) Distinguish between teaching method and teaching aid. Write the limitations of group teaching method. 2.0
b) Illustrate the steps involved in extension communication process. 3.0
6. a) Define innovation. Write the features of innovation. 2.0
b) Diagrammatically illustrate the adopter categories of farmers on the basis of their innovativeness. 4.0
7. a) Distinguish between monitoring and evaluation. Write the types of evaluation. 3.0
b) Explain the common steps for project evaluation. 3.0
8. Write short notes on (any two of the following): 3x2=6
6
a) Berlo's communication model
b) Extension training program development
c) PRA and RRA

Chattogram Veterinary and Animal Sciences University

DVM 4th year 2nd Semester Final Examination- 2020

Subject: Zoo and Wild Animal Medicine (Theory)

Course Title: ZWM-402 (T)

Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer any **Two (2)** questions from each section, where question No. 1 is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Define Zoo, Aquarium and Safari park with examples. 3
b) Differentiate Zoo medicine from the Wildlife medicine. 1
c) Illustrate the role of field veterinarian for the conservation of wildlife in Bangladesh. 4
2. a) What do you mean by "Mycobacterium avium complex (MAC)" in Tapir? 1
b) Write down the etiology, clinical findings, diagnosis, treatment and control of Anthrax in Asian elephant (*Elephas maximus*). 4
c) Write down the diagnosis and line of treatment of strangles in Zebra. 4
3. a) Enumerate the diagnosis and line of treatment of salmon poisoning in foxes. 4
b) Write down the etiology, transmission, clinical signs, post-mortem lesions, diagnosis and treatment of listeriosis in Royal Bengal Tiger at the national zoo, Mirpur, Dhaka 3
c) Name two (2) important viral diseases of Pheasant in which the pathognomonic post-mortem lesion is hepatomegaly. How will you differentiate them? 2

SECTION-B

4. a) Mention ten (10) bacterial diseases of reptiles with etiology, clinical signs and therapy. 3
b) Briefly describe the etiology, clinical signs, diagnosis and treatment of Equine influenza in Zebra at captive condition. 4
c) Define Emerging and Re-emerging diseases of wild animals with four (4) examples of each. 2
5. a) Describe the etiology, clinical signs, diagnosis, prognosis and treatment of Fascioliasis in deer. 3
b) Write down the etiology, clinical findings, diagnosis, treatment and control of Tuberculosis in monkeys. 4
c) Describe the etiology, transmission and clinical signs of gray patch disease in the green sea Turtle (*Chelonia mydas*). 2
6. Write short notes on (any three) 3x3= 9
a) Bird flu
b) Avian salmonellosis
c) Clubbed feet in an Ostrich
d) Johne's disease in Giraffe

Chattogram Veterinary and Animal Sciences University

DVM 4th year 2nd Semester Final Examination 2020

Subject: Animal Biotechnology (Theory)

Course Title: ABT-402 (T)

Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer any **Three (3)** questions from each section, where question No. 1 is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) What are the promises of modern biotechnology? 2.0
b) Briefly describe about biotechnologies that are being used in livestock industry. 3.0
2. a) What is artificial insemination (AI)? Write five important advantages of AI. 2.0
b) What are the basic steps to be followed for AI in cow? 2.0
c) Which points will you consider to maintain the quality of frozen semen and subsequent success in AI program? 2.0
3. a) What is multiple ovulation and embryo transfer (MOET)? Write down the application of MOET in livestock industry. 3.0
b) Explain the steps of MOET with appropriate diagram. 3.0
4. a) Illustrate the recombinant DNA technology. 2.0
b) Write down the procedures of gene cloning. 2.0
c) Enlist the application of genetic engineering in animal industry. 2.0

SECTION-B

5. a) Define invitro fertilization (IVF). List the prerequisites of IVF in cow. 2.0
b) Explain the steps of in vitro production of cow embryos. 2.0
c) What is embryo splitting? Write down the benefits of embryo splitting. 2.0
6. a) Write a short note on "DNA sequencing". 2.0
b) Enumerate the process of Sanger sequencing. 2.0
c) How will you use the knowledge of bioinformatics for the genetic improvement of animals? 2.0
7. a) Explain the term transgenic animals and genetically modified organisms (GMO). 2.0
b) Describe the micromanipulation method of transgenic animal production. 2.0
c) Write a short note on "Gene therapy" 2.0
8. a) State the mechanism of estrus synchronization in cow. 2.0
b) List the protocols and products currently used for synchronization of estrus in cow. 2.0
c) Write the advantages and disadvantages of synchronization of estrus. 2.0