Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2018
Subject: Food Hygiene and Veterinary Public Health (Theory)
Course Title: FHV-402 (T)
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any **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)	Classify zoonoses. Propose a control program for controlling rabies in Bangladesh.	3
	b)	Discuss the present scenario of practicing meat hygiene in Bangladesh. As a vet, how can you play role to improve the situation?	4
2.	a)	Enumerate the principles and methods of food preservation.	2
	b)	Briefly describe the spoilage of heated canned foods. Enlist the microorganisms that present in dried vegetables, egg and milk.	3+2=5
3.	a)	Write down different methods of stunning. Briefly describe various methods of slaughtering of animals in living conditions.	1+4=5
	b)	Enlist five (5) diseases for cattle and sheep each that can be made the carcass unfit for consumption.	2
4.	a)	Have you ever experienced a food borne disease? What is the name of disease you experienced and what could be the probable cause?	2
	b)	How do you define food borne disease outbreak?	1
	c)	Describe briefly the steps of investigating food borne disease outbreak.	4
5.	a)	Describe the bacterial and fungal spoilage of eggs.	3
	b)	Discuss the factors that influence the spoilage of fish. How can you provide evidence about spoilage of fish?	3+1=4
6.	a)	What are the values of ante-mortem inspection?	3
	b)	Give your judgement for carcass affected with following disease: I) Brucellosis II) Black quarter III) Tetanus IV) Foot and mouth disease (FMD) V) Rabies VI) Tuberculosis VII) Salmonellosis and VIII) Hydatidosis	0.5×8 =4

SECTION B

7.	a)	What do you mean by Veterinary Public Health and One Health?	2
	b)	Bangladesh is a role model among the developing countries for the rapid economic growth. Human health is an integral part of economic development of a country. Do you agree that a public health veterinarian can contribute the overall human health improvement? What are the major functions of a public health veterinarian?	5
8.	a)	Enlist the tasks of meat hygiene.	3
	b)	Transportation of animals is an important issue for animal welfare. Animal suffers during long time transport if there is no adequate precaution. What precautions will you take during a long-distance transportation of animals?	4
9.	a)	What are the principles for planning an abattoir?	2
	b)	Sketch a layout of a modern abattoir.	5
10.	a)	Why does microbe love food? What are the intrinsic factors of food that dictate microbial growth?	1+2=3
	b)	Classify the food (with example) by ease of spoilage?	2
	c)	What are the major causes of spoilage of food?	2
11.	a)	Write down the natural barriers of eggs that prevent microbial spoilage.	2
	b)	What are the objectives of market milk pasteurization?	2
	c)	Define and classify thermodurics.	3
12.	a)	What is HACCP? Write down the principles of HACCP.	1+3=4
	b)	How water quality is assessed with the aid of bacteriology? List the food control ministry and agency in Bangladesh.	2+1=3

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2018
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 any **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) Clarify 'Meat' and 'Muscle'. Mention the chemical composition of a typical meat. 3.0
   b) Represent the comparative chemical composition of meat from different species. Interpret based on it which one will choice for your daily meal. 4.0

2. a) Indicate the sources of contamination in meat plant. Discuss about different cleaning agents and sanitizers used in meat plant sanitation. 3.0
   b) How can you ensure effectiveness of cleaning and sanitation program in a meat plant? 4.0

3. a) State the different methods of slaughtering. 3.0
   b) How and why scalding is practised in poultry? Explain how shelf-life of meat can be increased. 4.0

4. a) Compare and discuss the different parameters used for grading of a beef carcass. 3.0
   b) Discuss the different methods of packaging of meat. 4.0

5. a) What are the virtues of wool? Explain briefly. 3.0
   b) State the factors affecting price and grading of wool. 4.0

6. Write short notes on (any seven) 7.0
   i) Drip loss
   ii) Sarcomere
   iii) Perimysium
   iv) Marination
   v) Myofibril
   vi) DFD and PSE meat
   vii) Green meat
   viii) Extender and filler
   ix) Chilling and freezing of meat

SECTION B

7. a) What are the desirable changes should occur in meat after slaughter? Write down their consequences and effect on meat. 3.0
   b) Illustrate the mechanism of post-mortem rigor mortis in meat. 4.0

8. a) State briefly about the thermal processing of meat with canning. 3.0
   b) Justify the use of preservatives and food additives in meat. Write down the properties and harmful effect of using preservatives in food. 4.0

9. a) 'Cold shortening effect of meat'- Explain. What are the steps should be considered to prevent cold shortening? 3.0
   b) How can you differentiate meat from different species observing meat colour, fat colour and odour of meat? Mention the linoleic acid content and iodine value and refractive index of meat for different species. 4.0

10. a) Classify non-meat ingredients. Name different types of food additives and preservatives which are readily used in meat products with purpose and dose level. 3.0
    b) Briefly describe about the purpose and functions of NaO_2/NaO_3 for meat curing. 4.0

11. a) Write down the objectives and steps of carcass dressing of meat animals. 3.0
    b) Why meat animals are inspected for ante-mortem and post-mortem? Explain general principles and guidelines for post-mortem inspection. 4.0

12. a) Design a meat processing industry and abattoir with lay out. 3.0
    b) Diagrammatically show the HACCP plan for Salmonella control in meat industry. 4.0

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2018
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 number **1** is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1.	a)	Define extension and agricultural extension.	2
	b)	Enlist the principles of agricultural extension.	3
2.	a)	Enumerate teaching method. State the steps involved in extension teaching method.	3
	b)	Briefly state the advantages and limitations of farm and home visit for implementing extension work.	3
3.	a)	Clarify the concept of communication.	2
	b)	State the importance of communication in livestock extension work.	4
4.	a)	State the importance of monitoring.	3
	b)	Differentiate between monitoring and evaluation.	3

SECTION B

5.	a)	Clarify the concepts of education. Agricultural extension is a two-way channel -- evaluate	1+2
	b)	Differentiate between formal and non-formal education.	3
6.	a)	Define motivation.	2
	b)	Discuss Maslow's need theory of motivation with its implication in livestock extension work.	4
7.	a)	Enlist the perceived attributes of livestock innovation.	3
	b)	Discuss the stages in the innovation decision process with neat diagram.	3
8.		Write short notes on any two of the followings:	3×2=
	a)	Motivation cycle.	
	b)	Local leaders in livestock extension.	
	c)	PRA and RRA	

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2018
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 any **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

1. a) Write down the important Paramphistomum species which affect buffalo. Make a list of anthelmintics which are effective against paramphistomiasis. 2
   b) Briefly describe the diagnosis and control measures of dermatophytosis in cattle. 3
   c) Immune evasion affects an effective vaccine production in trypansomiasis. Explain it. 4
   d) Differentiate between fascioliasis and paramphistomiasis. 2

2. a) Enlist the rickettsial and hemoprotozoan diseases in cattle with their causal agents. 3
   b) How can you differentiate babesiosis from anaplasmosis and postpartum hemoglobinuria? 3
   c) Describe the predisposing factors of babesiosis in cattle. 3
   d) Make a prescription of a cattle excreting red color urine, have rectal temperature 104^0F with enlargement of superficial lymph nodes. Presence of tick in the body coat was history of the patient and the body weight is 300 Kg. 3

3. a) Write down the epidemiology and clinical signs of coccidiosis in calf. 3
   b) Briefly describe the treatment of dermatophytosis in calves. 3
   c) What do you mean by polyarthritis? How will you treat a case of bovine keratoconjunctivitis of seven days duration? 3
   d) Enlist the intestinal parasites that causes diarrhoea. Write down the treatment with a specific drug for gastrointestinal parasites. 3

4. a) What is nagana? Briefly describe the pathogenesis of nagana in camels. 3
   b) Design a treatment protocol for anaplasmosis in goat. 3
   c) Briefly describe the diagnosis and treatment of mange in cattle. 3
   d) How will you diagnose and control cutaneous myiasis in cattle? 3

SECTION B

5. a) What do you mean by summer sore in equine? Discuss about clinical manifestations, diagnosis and make a line of treatment of humpsore in zebu cattle. 5
   b) Construct a table for differential diagnosis of CBPP. 3
   c) What is dourine? Write down the stages of clinical signs and control of dourine in horse. 3

6. a) What are the farm evidences you should consider to diagnose mycoplasmal mastitis? What are the effects of lice infestation in cattle? 4
   b) Write down the zoonotic important parasite, fungal, protozoal and rickettsial disease in cattle. 4
   c) Mention the clinical significance of stomach bot infestation in horse. 2
   d) Write down the line of treatment of mycotic mastitis in dairy cow. 2

7. a) Write down the clinical signs and treatment of zoonotic protozoal disease in cows which is transmitted by cat feces. 4
   b) Write down the clinical signs of lung worm infestations in a dairy cow? 2
   c) Distinguish between eye worm infestation and mycoplasmal keratoconjunctivitis and what suggestion would you give to owner having a goat with keratoconjunctivitis? 4
   d) Discuss about your drug of choice against different stages of fascioliasis. 2

8. a) What do you mean by calfhood disease and why it is called so? 4
   b) Calf coccidiosis is more common during rainy season in our country. Justify it. Illustrate the clinical signs of coccidiosis in cattle. 5
   c) Why Q fever is zoonotically important in veterinary medicine? 3

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2018
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 number **1** is **compulsory**. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1.	a)	What is animal biotechnology? Write down the scope of Animal Biotechnology.	3
	b)	What are the biotechnological approaches that are being used in livestock industry?	2
2.	a)	How will you evaluate the semen physically?	3
	b)	How will you preserve bull semen for long term use? Write down the advantages of frozen semen.	3
3.	a)	What do you mean by genetic engineering? Write down the applications of genetic engineering.	3
	b)	What do you mean by recombinant DNA technology? Describe the procedure of recombinant DNA technology.	3
4.	a)	What is DNA sequencing? Write down the way of DNA sequencing method.	3
	b)	How embryonic stem cells are utilized for creating transgenic animals?	3

SECTION B

5.	a)	What do you mean by IVF? Write down the factors that influence IVF.	3
	b)	Describe the procedure of IVF with reference to cow.	3
6.	a)	Write down the application of MOET in livestock industry.	2
	b)	Write down the steps of MOET. How will you synchronize oestrus in MOET?	4
7.	a)	What is cloning? Illustrate the essential steps involved in gene cloning.	4
	b)	Write down the potential benefits and harms of cloning.	2
8.	a)	Write a short note about bioinformatics.	1
	b)	Write down the importance of artificial insemination for dairy development in Bangladesh.	3
	c)	What are the methods of semen collection? Write down the procedure of AV method.	2

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2018
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 number **4** is **compulsory**. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Define zoo and safari park. Differentiate zoo medicine from wildlife medicine. 3
   b) Describe the role of field veterinarian for the conversation of wildlife in Bangladesh. 3
   c) Which trematode inhabits the oral cavity of a snake? How do you diagnose and treat it? 3

2. a) Describe the etiology, transmission, clinical signs and treatment of Anthrax in an Asian Elephant 4
   b) Briefly describe the etiology, transmission, clinical signs, post-mortem findings, diagnosis and treatment of listeriosis in Royal Bengal tiger of national zoo. 5

3. a) Define zoonoses. Briefly describe the transmission, symptoms and preventive procedure of Hepatitis A infection in hon human primates with zoonotic significance. 5
   b) Define flu. Briefly describe the etiology, clinical signs, diagnosis and treatment of equine influenza in zebra in captive condition. 4

SECTION B

4. a) Define emerging and re-emerging diseases of wild animal with at least four examples of each. 4
   b What is Kikuth's disease. Write down the etiology, clinical signs, post mortem lesions, diagnosis and treatment of this disease. 4

5. a Write down the line of treatment of following diseases: 3×2=
   1) Sarcoptic mange infestation in camel
   II) Gray patch disease in Green Sea Turtle
   III) Lumpy jaw in Kangaroo
   b) What do you mean by the term "Mycobacterium Avium Complex (MAC)" in Tapir? Briefly describe the clinical signs, diagnosis and treatment of MAC in Tapir. 3

6. a) Define and classify mange. Briefly describe the etiology, clinical findings, post mortem lesions, diagnosis and treatment of sarcoptic mange in camel in a camel farm. 3
   b) Write short notes on following 3×2=
   i) Johne's disease in Giraffe
   ii) Hook work infestation in Asiatic black bison

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2018
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 any **two (2)** questions from each section where question number **1** is **compulsory**. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Define terms 'pet' and 'companion animal'. Enlist some food item that are toxic to dog. 3
   b) Write down the standard procedures of deworming and vaccination of dog and cat. 5

2. a) List diseases of dogs and cat where you need to run liver and kidney function test before diagnosis. 3
   b) Write down the etiology, clinical signs, treatment and prevention of canine distemper. 3
   c) Write down the prescription for a dog of 7 years old affected gastritis. 3

3. a) Write down the diagnosis and treatment protocol of diabetes mellitus in cat. 3
   b) Write down the etiology, clinical signs and treatment protocol of overgrown teeth in rabbit. 3
   c) Mention the oral ivermectin therapy protocol in the case of demodectic mange in dog. 3

SECTION B

4. a) A 10 years old intact female cat was brought to SAQTVH with history of inappetence, polyuria and polydipsia. On physical examination it was found that abdomen was distended. Owner also told that, they never bred their cat before. What would be your diagnosis and write down a prescription based on your diagnosis. 3
   b Mention the organisms involved in 'Respiratory disease complex' in cat. Write down the etiology, clinical signs and treatment of Malassezia infection in dog. 3
   c) Briefly describe the clinical signs and treatments of lyme disease in dog. 3

5. a) Describe the clinical findings, diagnosis and treatment of tick fever in dog. 3
   b) Illustrate the specific treatment of heartworm in dog. 3
   c) A 8 months old pup was admitted to SAQTVH with a history of characteristic fetid diarrhoea, vomition and prostration. What could by your presumptive diagnosis and how can you treat the pup? 3

6. Write short notes on followings: 3×3
   a) Eclampsia in cat
   b) Ringworm in dog
   c) Itchy mange of dog

Chattogram Veterinary and Animal Sciences University
DVM 4th year 2nd Semester Final Examination 2018
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 any **three (3)** questions from each section where question number **5** is **compulsory**. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

a)	Define puberty. What are the factors influencing the onset of puberty in bull?	3
b)	How does a male show his reproductive behaviour?	3
a)	What are the factors responsible for infertility in male in our country? Briefly explain.	1+4
b)	Enumerate the disease and disorders of male genital system.	1
a)	Artificial vagina method is the priority choice of semen collection in bull- Justify.	1
b)	Briefly describe the procedure of semen collection in bull and broiler breeder.	3+2
a)	What do you mean by AI? Write down the methods of AI. Briefly summarize the procedure of AI in cow.	1+1+2
b)	How will you control fertility of a male dog?	2

SECTION B

	Mention the site of semen deposition, volume of each dose after dilution, number of motile sperm (million/ml), thawing temperature, thawing time in cow, ewe, doe, bitch, sow, mare and boiler breeder.	7
a)	Write down the methods of semen preservation. Summarize the steps of semen freezing.	1+2
b)	How will you evaluate semen of a buck?	2
	Write down short note on any two:	2.5 + 2.5
i.	Orchitis	
ii.	Phimosis and paraphimosis	
iii.	Testicular biopsy	
a)	Prepare a certificate for breeding soundness evaluation of a bull.	2.5
b)	Briefly describe the procedure of hypothalamic-pituitary-pineal- testicular activity of a stallion.	2.5