(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

1.	a)	What do you mean by soil borne disease? Mention five soil borne diseases of farm animal.	2
	b)	Why it is necessary to know the epidemiology of soil borne disease, explain briefly?	2
	c)	How will you differentiate between black quarter and malignant edema in cattle?	3
	d)	Mention the striking clinical signs and clinical management of black quarter in a young bull.	4
2.	a)	How grading of clinical mastitis will help in controlled use of antibiotics?	2
	b)	Describe score and interpretation of California Mastitis Test (CMT)	2
	c)	What do you mean by dry cow therapy? What are the measures should be taken in a commercial dairy farm to prevent subclinical mastitis?	4
	d)	How will you manage udder edema in a Friesian cow?	4
3.	a)	How will you differentiate actinomycosis from fibrous osteodystrophy in goat?	2
	b)	What is the line of treatment of listeriosis in goat?	3
	c)	How can you diagnose anthrax in farm animal?	3
	d)	List available large animal vaccines in Bangladesh with their age of administration, dose, boostering schedule and route.	4
			3×4=12
4.		Write down the prescription of following diseases: (any three)	
	a)	Gangrenous mastitis in a 180 Kg body weight RCC dairy cows	
	b)	Black quarter in a 140 Kg body weight heifer	
	c)	Whitish diarrhea in a 35 Kg body weight cross-bred calf	
	d)	Glanders in stallion of 200 Kg body weight	

SECTION-B

5.	a)	Enlist the vesicle forming viral diseases of ruminants in Bangladesh?	1
	b)	Which viral disease was recently outbroken in Bangladesh? What are the possible ways of introduction of this disease? Mention the clinical signs, diagnosis and management of that disease	2+5=7
	d)	Incepta pharmaceuticals made 'KhuraVax' vaccine against FMD in Bangladesh which is not working well. What are the possible causes of failure of this vaccine?	3
6.	a)	How will you differentiate a case of PPR from contagious caprine pleuropneumonia in goat?	3
	b)	Write down the predisposing factors and line of treatment of bovine ephemeral fever in cattle.	3
	c)	What are the field treatments of papillomatosis in cow?	3
	d)	How would you differentiate rabies from BSE in cow?	3
7.		Differentiate between	4×3=12
	a)	FMD and bovine viral diarrhea	
	b)	Dermatophytosis and dermatophilosis	
	c)	Bacillary haemoglobinuria and acute leptospirosis	
	d)	CBPP and infectious bovine rhinotracheitis	
8.	a)	Write down the clinical sign and line of treatment of contagious ecthyma in goat.	3
	b)	What are the possible causes of neonatal diarrhea in dairy farm?	2
	c)	How thiamine deficiency may occur after PPR outbreak in goat?	3
	d)	A 70 Kg old buffalo calf is affected with hemorrhagic septicaemia. Write down the possible treatment for it.	4

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

1. a) Name the most common nematodal diseases of poultry in Bangladesh. How will you treat it? 1+1=2
    b) Prepare vaccination schedule for commercial layer and broiler. 3.0

2. a) What do you mean by CRD? Write down the causal agent and clinical signs of this disease. Give a prescription for it. 0.5 + 1.5 +2 =4
    b) Give a prescription for infectious coryza in the commercial layer flock. 2.0

3. a) Name 10 (ten) forms of colibacillois in avian species with pathognomonic clinical signs and post mortem lesions. 3.0
    b) A layer farmer comes to you with affected birds of 16 weeks of age. On history the affected birds are showing shrunken and pale combs and wattle, mucoid yellowish diarrhea adhere to the vent region with rapid spreading high morbidity and mortality. On post mortem examination, a distinctive copper bronze sheen found on swollen friable liver; also, cardiomegaly with fibrinous pericarditis, splenomegaly and typhlitis. What is your presumptive diagnosis? How will you treat that flock? 1+2=3

4. a) In which viral disease, visceral gout is commonly found? Write down its clinical signs and give a prescription for it. 0.5 + 2.5 = 3
    b) How will you treat exudative diathesis in broiler and nutritional roup in layer? 1.5 + 1.5=3

SECTION-B

5. a) Write down the clinical signs and post-mortem findings of Newcastle disease. Give a prescription for a layer flock of 40 weeks of age affected with Newcastle disease. 2+2=4
    b) How will you differentiate Newcastle disease from Avian Influenza? 2

6. a) Enlist some bacterial diseases of poultry where valvular endocarditis can be found? 1
    b) Describe the etiology, transmission, clinical signs, post mortem lesions, treatment, prevention and control of Erysepalis infection in turkeys. 5

7. a) Describe the role of wheat, fish meal and coccidiosis in causing necrotic enteritis in poultry. 3
    b) A pigeon owner comes to you with a pigeon at SAQTVH of CVASU. On thorough examination, you found that the oral cavity contains greenish-yellowish fluid which is dipped from the beaks. What is your presumptive diagnosis? How would you treat and prevent that condition? 0.5 + 2.5=3

8. a) Relate between *Histomonas meleagridis* and *Heterakis gallinarum* infestation in turkeys. What management system do you prefer for controlling and preventing these infestations? 1+2=3
    b) Which bacterial disease is usually transmitted in commercial layer flock by rats? Write down the its line of treatment. 1+2=3

(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

1. a) Justify the name of theriogenology in animal sciences. 2
   b) Describe the follicular wave. How does ovulation occur describe briefly? 5

2. a) Summarize the methods use to detect estrus in farm animals. 4
   b) Mention the time of estrus cycle and estrus in cow, goat, ewe, sow, bitch and mare. 3

3. a) Point out the steps to be required for fertilization. 4
   b) Prepare a sketch to describe parturition in a cow. 3

4. a) Assess a female fit for breeding. 5
   b) Summarize the diseases under gynaecology and obstetrics. 2

5. a) Define, diagnose and prescribe the following conditions-COD and RP 4
   b) Compare the criteria between fetal mummification and fetal maceration. How will you treat a cow suffering from fetal maceration? 3

6. a) How does photoperiod effect on short day breeders in regulating reproductive cyclicity? 3
   b) A commercial dairy farm with 100 dairy cows suffering from fertilisation failure due to heat detection error. How will you improve heat detection error in that farm? 4

SECTION-B

7. a) Differentiate between vaginal prolapse and uterine prolapse. 2
   b) Summarize the causes of uterine prolapse in a cow. Give a prescription with correction and management of a cow suffering from uterine prolapse. 5

8. a) What are the preparations will you take for rectal palpation and ultrasonography in a goat? 2
   b) Interpret the findings of rectal palpation and ultrasonography during examination of a goat genital tract. 5

9. a) A queen cat completing its gestation period, having signs of parturition for more than 24 hours and two fore limbs and head not coming out through cervix and no fetal fluids. Diagnose the case and mention your possible plan for its correction. 4
   b) Write down the principles of care of new born calf, and dam in case of cows. 3

10. a) A large-scale dairy farmer having complaint with prolong post-partum anestrus coming to a veterinary surgeon to minimize the case taking suggestions from him for his farm. What will be plan as a vet to minimize this problem? Explain 4
    b) Distinguish between follicular cyst and luteal cyst. 3

11. a) What are the causes of infectious forms of infertility in dairy cows? 3
    b) Design a plan to achieve universal reproductive goals in a large-scale dairy farm. 4

12. a) What is pseudopregnancy? Prescribe for a goat suffering from pseudopregnancy. Differentiate pseudopregnancy from mucometra. 4
    b) How will you diagnose a case of pyometra in a cow? Write down treatment of pyometra in a bitch. 3

Chattogram Veterinary and Animal Sciences University
DVM 4th year 1st Semester Final Examination 2019
Subject: Anesthesiology and Operative Surgery (Theory)
Course Title: AOS-401 (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

1. a) What are the principles of modern surgery?   2
   b) How will you diagnose and manage left side abomasal displacement in cow?   5
   c) Mention the indications of rumenotomy. How will you differentiate rumenotomy from rumenstomy   4

2. a) Write down at least five (5) common modalities used for veterinary physiotherapy. How tread mill works in case of dog for physiotherapy.   3
   b) Summarize the sedative protocol, site of incision, suture techniques, materials and post-operative care of a cow preparing for doing C section.   4
   c) How will you differentiate between reducible and irreducible hernia? How will you manage a reducible umbilical hernia in a calf (radical treatments)?   5

3. a) What are the common routes of fluid therapy? How will you diagnose overdose of fluid therapy?   3
   b) A 3 years old street dog weighing 33 pound having 8% dehydration. How will you calculate the amount of fluid required for it (the dog had history of vomiting 50 mL overnight)   5
   c) How will you perform different steps of CPR in a dog that will go into cardiac arrest?   4

4. a) Mention the routes of local anaesthesia. How will you diagnose and treat overdose of local anaesthesia?   4
   b) Mention two examples of narcotics. Classify local anaesthetics on the basis of duration of action.   3
   c) Write down the effects of xylazine, diazepam and atropine and different systems of animal body.   5

SECTION-B

5. a) What is the effect of adrenaline when added to local anaesthetics with regarding to absorption, toxicity, intensity and duration of analgesics activity?   3
   b) Define anaesthesia, balanced anaesthesia, catalepsy, neurolept analgesia.   4
   c) Mention at least two effects of thiopental sodium and ketamine HCl on cardiovascular, nervous and respiratory systems in animals.   4

6. a) How will you differentiate between disbudding and dehorning?   2
   b) Mention the age, pre-operative preparation, operative procedure and complications of castration in cat.   6
   c) Define cataract, cherry eye, glaucoma, pyorrhoea   4

7. Write short notes on any four (4) of the followings: 3×4 =12

   a) Chemical methods of euthanasia
   b) Spaying in bitch
   c) Gid disease in goat
   d) Circle rebreathing system of GA machine
   e) Upward patellar fixation in cattle

8. a) Differentiate different disease or disease conditions based on mucous membrane color   2
   b) Mention different stages of anaesthesia.   5
   c) Mention the parameters of vital signs monitor with importance of these parameters in monitoring anesthetized patient   5

(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

1. a) Define preventive veterinary medicine. Classify it. Why should we prevent diseases? 6
   b) Briefly describe the goals of preventive veterinary medicine. 5

2. a) Why is risk assessment an important component of disease emergency preparedness planning? 4
   b) Briefly describe the importance of disease process in disease prevention. 4
   c) What are the consequences of an animal disease emergency? 4

3. a) Define biosafety and biosecurity. Briefly describe three (3) elements of biosecurity of a poultry farm 6
   b) Briefly describe the principles of eradication of transboundary animal disease. 6

4. a) Define vaccine and vaccination. 2
   b) What are possible side effects might happen in vaccination? 5
   c) Define terminal cleaning. Briefly describe the cleaning procedures of poultry farm. 5

SECTION-B

5. a) What is risk zone? What is the basis of risk zone identification? 3
   b) Briefly describe risk zones in controlling FMD outbreak. 4
   c) What should be common facilities available in animal quarantine status? 4

6. a) What are the contributing causes of hypomagnesemic tetany in a dairy farm? 4
   b) What measurement should be taken for a new born calf in herd health programme? 4
   c) Describe rabies control program for a geographical region comprised of urban area near wild fauna. 4

7. a) Differentiate intervention and prophylaxis. 2
   b) Define NADEP, quarantine and certification system. 3
   c) Briefly describe potential effects of veterinary drugs residues on public health and control measures of it. 7

8. Write short notes on (any three) of the following 3×4 = 12

   a) Herd health and herd immunity
   b) Early warning and rapid response
   c) Eradication of diseases
   d) Ring vaccination

(Figures in the right margin indicate full marks. Answer **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) Enlist the immunosuppressive diseases and vertically transmissible diseases of poultry.   3
   b) Write down the pathogenesis and pathology of IBD.   2

2. a) Write down the pathogenesis of fowl cholera in layer with pathology.   3
   b) Describe the conditions produced in broiler due to nutritional deficiency.   3

3. a) What is the relationship between necrotic enteritis and coccidiosis in chicks? Write down the post-mortem finding of necrotic enteritis and cecal coccidiosis.   4
   b) Which protozoan disease of turkey is transmitted with the help of the eggs of *Heterakis gallinarium*? Write down the post mortem findings.   2

4. Write down the post mortem finding of following diseases (any three)   6
   a) Mycotoxicosis
   b) Newcastle Disease
   c) Duck viral hepatitis
   d) Deficiency of vitamin E

SECTION-B

5. a) Mention the different forms of colibacillosis. How will you differentiate coli granuloma from avian TB?   3
   b) Describe the pathogenesis and pathology of brooder pneumonia.   3

6. a) In which bacterial disease of quail there may occur sudden high mortality. Describe its pathogenesis and pathology.   4
   b) Write a short note on canker in pigeons.   2

7. a) Name the etiological agent of infectious coryza. What type of clinical findings and pathological lesions do you find in that case?   3
   b) Which neoplastic diseases are available in poultry in Bangladesh? Write down the post mortem findings of avian leukosis in layer.   3

8. a) Write down the pathogenesis of pullorum disease in poultry and mention the post mortem findings in chicks and layers.   4
   b) Enlist the post mortem findings of psittacosis.   2

Chattogram Veterinary and Animal Sciences University

DVM 4th year 1st Semester Final Examination 2019

Subject: Veterinary Epidemiology (Theory)

Course Title: VEP-401 (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. 1 is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Define epidemiology. How did John Snow contribute to epidemiology? 3
   b) Describe role of epidemiology in veterinary medicine. 2

2. a) Define proportionate prevalence, mortality and case fatality rate. 3
   b) Describe 'outcome' in epidemiological prospective. 1
   c) How will you assess 'confounding' and 'interaction'? show in a sketch. 2

3. a) Lumpy skin disease has recently brought out in different parts of Bangladesh. Suppose you are the part of the disease outbreak investigating team. Briefly describe different steps of an outbreak investigation of the disease. 2
   b) How many ways you can calculate denominator for incidence estimate? Give relevant examples. 2
   c) How will you differentiate between descriptive and analytical studies? 2

4. a) Write down the application of different measures of effect. How will you define baseline of a factor? 2
   b) Interpret the following parameters: I. OR=4.5, II. RR=4.0, III. AR=3.5 2
   c) Define the following terminology:
   I. Vaccine efficacy 1
   II. Basic case reproduction number 0.5
   III. Net case reproduction number 0.5

SECTION-B

5. a) Define positive predictive and negative predictive value. 3
   b) Sketch a study design you like the most with an appropriate example. 3

6. a) Define sample and sampling. Differentiate between strata and clusters. 2
   b) Show an example data analytical plan of the disease outbreak investigations. 2
   c) Explain the importance of disease screening and monitoring. 2

7. a) Write down the cycling components of a disease surveillance in a given population. 2
   b) Write objectives of different disease surveillance programmes. 2
   c) Differentiate different surveillance system from each other. What kind of disease surveillance in livestock maintaining in Bangladesh? 2

8. Write short notes (any three) 2×3 = 6

   a) Spatial epidemiology
   b) Clinical epidemiology
   c) Sampling schemes
   d) Sample size calculations

Chattogram Veterinary and Animal Sciences University

DVM 4th year 1st Semester Final Examination 2019
Subject: Entrepreneurship & Business Management (Theory)
Course Title: EBM-401 (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. **Split answers must be avoided.**)

SECTION-A

1. a) Point out the qualities of a successful entrepreneur with examples. 4
    b) Discuss the roles and functions of an entrepreneur. 3
    c) Show the prospect of being an entrepreneur as a vet graduate. 4

2. a) Describe the five Cs of the Entrepreneurship Ecosystem. 4
    b) Explain the probable reasons for not developing entrepreneurship among graduates in Bangladesh. 4
    c) Veterinary Clinics is no different than any other business in many respects. Do you agree? Justify your position. 4

3. a) "Entrepreneurship is a mindset"- explain your thoughts regarding the statement. 4
    b) Clarify the common myths about entrepreneurs. 4
    c) Identify various sources of project finance. Criticize those sources. 4

4. a) Mention the four steps of the entrepreneurial process. 4
    b) Explain the main features of sole proprietorship business. 4
    c) Mention two major advantages and disadvantages of partnership business. 4

SECTION-B

5. a) Develop four SMART objectives for any selected organization. 4
    b) Summarize the control process. 3
    c) Discuss the functions of management. 4

6. a) Identify your personal SWOT in regard to be an entrepreneur. 4
    b) If you would like to be a good manager, you must develop some general skills. Mention those skills. 4
    c) Demonstrate the steps in organizing. 4

7. a) Define 'leader' with examples. 3
    b) Explain the types of leaders. 4
    c) Give examples how you will motivate your subordinates in general. 5

8. a) Explain the factors you will consider while hiring an employee. 3
    b) Discuss the importance of communication in business. 3
    c) Identify and discuss various steps of a business plan. 6

Chittagong Veterinary and Animal Sciences University
DVM 4th year 1st Semester Final Examination 2018
Subject: Animal Welfare and Veterinary Ethics (Theory)
Course Title: AWE-401 (T)
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer **any three (3)** questions from each section in which question no. **1** is compulsory. Use separate answer script for each section. Fractions of the questions may be answered together)

SECTION-A

1. a) What is "Animal welfare"? Why cattle is called sentient animals? — 1
    b) Briefly describe the five freedoms of animal welfare. — 2
    c) Why veterinarian should have fair knowledge on animal welfare? — 2

2. a) What are the duties and responsibilities of a veterinarian to promote animal welfare in Bangladesh? — 3
    b) Write down the methods of slaughter? Discuss the animal welfare issues during pre-slaughter handling and post-slaughter in Bangladesh. — 3

3. a) What are the OIE standards on animal welfare? List the welfare indicators during slaughtering of animals. — 2
    b) What type of causes should be considered during transport, sale yard practice and humane slaughter of cattle? — 2
    c) Write down the principles of Veterinary ethics. — 2

4. a) Briefly discuss the OIE guidelines on land transport of cattle. — 3
    b) What is HARs? What points could be considered to monitor the welfare of dairy production system. — 3

SECTION-B

5. a) What are the methods of dog population control? — 1
    b) What is CSVR? Briefly discuss the surgical sterilization of street dog control in Bangladesh. — 3
    c) Define the humane methods of killing of animals. — 2

6. a) Enlist the stressor and useful stress indicators in plasma during transport. — 2
    b) Write the name of Sustainable Development Goals (SDGs) that are related with livestock. Briefly discuss the relationship between animal welfare and SDGs. — 3
    c) What are the causes of stereotype? — 1

7. a) Write down three common offences against animals with examples. — 2
    b) How will you promote animal welfare in Bangladesh? — 2
    c) What are the welfare problems of broiler in Bangladesh? — 2

8. Write short notes on any three (3) of the followings: — 3x2=6
    a) Witness
    b) Vetero-legal wound
    c) Veterinary certification
    d) Bangladesh animal disease Act-2005

Chattogram Veterinary and Animal Sciences University

DVM 4th year 1st Semester Final Examination 2019
Subject: Animal Welfare and Veterinary Ethics (Theory)
Course Title: AWE-401 (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. **1** is compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Define combine definition of animal welfare. — 1
   b) What are the acts recently approved in the parliament of Bangladesh? Who will be the members of Bangladesh Veterinary Council under BVC act 2019? — 2
   c) What are the OIE standards on animal welfare? — 2

2. a) What are the welfare problems of dairy cow in Bangladesh? — 2
   b) How will you assess fear of animal? How to improve the handling of farm animals? — 2
   c) Briefly discuss the five principles with responsibilities of animal welfare. — 2

3. a) Enlist the tools used for recording animal behaviour. Write down the normal behaviour of cattle and chicken. — 2
   b) Define humane slaughter, euthanasia, slaughter and emergency killing. — 2
   c) What are the OIE guideline for slaughtering of animals? — 2

4. a) State the veterinarian oath. Write the principles of veterinary ethics. — 2
   b) What are the common offences against animals? — 2
   c) List the common frauds in the sale of livestock and livestock products. — 2

SECTION-B

5. a) What is the humane end point of laboratory animals? Define 3Rs. — 2
   b) What are the humane methods of killing animals? — 2
   c) How will you control stray dog in Bangladesh? — 2

6. a) Enumerate the common forms of cruelty to animals made by the owners or animal attendants. — 2
   b) What are the possible ethical issues in deciding euthanasia in small animal practice? — 2
   c) What ethical considerations must be taken when doing research with animals? — 2

7. a) What is legislation? List the veterinary legislation of Bangladesh. — 2
   b) What are the modes of transport of livestock in Bangladesh? List the welfare indicators during transport of cattle. — 2
   c) What are the roles of a veterinarian to improve animal welfare in Bangladesh? — 2

8. a) Briefly discuss the penalties as per animal welfare act, 2019. — 2
   b) How will you manage heat stress in dairy farm? — 2
   c) What are the ways to promote animal welfare in Bangladesh? — 2