

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination 2023
Course Title: Large Animal Production
Course Code: LAP-301 (T)
Full Marks: 70, Time: 3 hours

(Figures in the right margin indicate full marks. Answer five (5) questions from each section. Use a separate answer script for each section. Split answers are strongly discouraged.)

SECTION-A

1. a) What do you mean by Animal Production? Mention the age of feeding colostrum, whole milk, skim milk, milk replacer, calf starter, and concentrate feed in a tabular form. 4
b) Briefly describe the housing system of backyard dairy farming in Bangladesh. 3
2. a) State the inclusion level of different types of feedstuffs in a beef fattening ration. 5
b) What are the factors considered for feeding cattle for their fattening purpose? 2
3. a) Point out the direct effect of tropical climate on buffalo production. 3
b) How would you train a first calver buffalo cow for milking? 4
4. a) What care should be taken for the buffalo cow at and immediately after calving? 4
b) State the special care required for the management of buffalo bull calves. 3
5. a) Describe the following factors of the reproductive performance of buffalo: gestation period, calving interval, and reproductive efficiency. 6
b) Write a short note on silent heat in Buffalo. 1
6. a) Differentiate the term Heritability from Repeatability. 2
b) Tabulate the heritability and repeatability values of the following parameters of cattle – Birth weight, Weaning weight, Milk yield, Butter fat content, and Calving interval. 5

SECTION-B

7. a) Calculate the appropriate insemination time within the heat period of a cow considering the reproductive physiological parameters. 4
b) Point out the factors to be considered for selecting the appropriate genotype of the dairy cow for profitable dairy farming in Bangladesh condition. 3
8. a) What are challenges and opportunities for beef production in developing countries like Bangladesh? 4
b) Discuss the nutritional requirements of milch cow. 3
9. a) What are constraints and prospect of dairy buffalo farming in Bangladesh? 3
b) What parameters to be considered for determining the time of weaning a buffalo calf? 4
10. a) List the direct climatic influence on dairy cows in Bangladesh condition. 4
b) What is drying off? State the principles of drying off. 3
11. a) Discuss the ancestors of the following dairy breeds – Jersey, Holstein Friesian, Ayrshire, and Brown Swiss. 4
b) State the dairy breeders' associations with their publications. 3
12. a) State the main feeding problems of draft animals. 2
b) What are the points to be checked to make sure a draft animal is healthy? 5

Chattogram Veterinary and Animal Sciences University

DVM 3rd Year 1st Semester Final Examination 2023

Course Title: Dairy Microbiology (Theory)

Course Code: DMC-301 (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. **one (1)** and **five (5)** are compulsory. Use separate answer script for each section.)

SECTION-A

1. a) What is Dairy Microbiology? Write down the significance of Dairy Microbiology. 2.0
b) Classify *Lactobacteriaceae* family with example. 2.0
c) Outline the role of microorganisms in dairy industry. 1.0
2. a) Define dairy starter culture with examples. 1.0
b) Give a flow chart for the culture preparation. 2.0
c) Enlist the common culture defects. 1.0
d) What are the bacterial cultures used in fermented milk product manufacture? 2.0
3. a) Define milk-borne disease with classification. 1.5
b) State one most important organism for milk-borne disease with their sign, symptoms, prevention and control. 3.0
c) How to prevent milk-borne infectious diseases? 1.5
4. Write short notes (any 3) : 3 x 2=6
a) Microbiology of Butter b) Microbiological defect of milk c) Microbiological standards of Grade-A milk and milk products. d) Undesirable fermentation of milk.

SECTION-B

5. a) What are the steps should be taken for the safe milk production? Briefly describe it. 2.0
b) What are the various sources of contamination of milk and milk products? Briefly describe with schematic diagram. 2.5
c) Illustrate the physical and chemical agent used for destruction of microorganism in dairy microbiology. 1.5
6. a) Define Thermotolerant bacteria with examples. 1.0
b) Write down the sources and significance of Thermotolerant bacteria in milk and milk products. 3.0
c) Write down the effect of Thermotolerant bacteria on self-life of milk at room temperature in Bangladesh. 2.0
7. a) Define Probiotics with example. 1.0
b) Briefly describe the health benefits of Probiotics. 3.0
c) What is the significance of Coliform bacteria in milk and milk products? 2.0
8. a) What is HACCP? 1.0
b) What are the 7 principles of HACCP? 2.0
c) Illustrate the HACCP description chart for fluid milk. 3.0

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DVM 3rd Year 1st Semester Final Examination-2023

Course Title: Virology

Course Code: VIR-301(T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer three (3) questions from each section where question number 1 and 5 are compulsory. Use separate answer script for each section. Fractions of the questions are encouraged to answered together.)

SECTION-A

1. a) Differentiate Marek's disease virus from Lymphoid leukosis virus. 3.0
b) Explain pathogenesis of Marek's disease. 3.0
c) What are the signs and lesions found in duck plague? 3.0
d) What is prion? What is the molecular basis of pathogenesis of prion diseases? 2.0
Enlist some prion diseases.
2. a) What are the changes produced by following virus inoculation in embryo: fowl pox virus, infectious bronchitis virus, duck plague and avian encephalomyelitis virus. 12
3. a) Enlist different pathotype of Newcastle disease virus with example and what is the basis of classification? 3.0
b) Illustrate the mean death time and intracerebral pathogenicity index of embryo in case of Newcastle disease virus 4.0
c) What are the polypeptides found in NDV and mention their role? 5.0
4. a) How many segments are found in case of avian influenza virus? Explain the role of segments 9, 2 and 3 in avian influenza virus. 5.0
b) Explain the criteria of OIE in determining HPAIV. 4.0
c) Differentiate between Orthomyxovirus and Paramyxovirus. 3.0

SECTION-B

5. a) Describe different effect of viral infections in the host cells. 4.0
b) Describe the viral replication process. 7.0
6. a) Classify the strains of infectious bursal disease virus. 3.0
b) Enlist viral diseases of animals having public health significance. 4.0
c) Describe the diagnostic procedure of avian influenza. 5.0
7. a) Enlist viral diseases of poultry with their family, name, symmetry, sense, genome (DNA/RNA), presence of envelop and site of replication. 12.0
8. a) Mention the serotypes of FMD virus. 2.0
b) Briefly explain the clinical signs seen in FMD. 4.0
c) How will you prevent and control Newcastle disease in poultry? 4.0
d) Enlist viral diseases of dog and cat. 2.0

DVM 3rd Year 1st Semester Final Examination-2023**Course Title: Systemic Pathology****Course Code: SPT-301 (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 are encouraged to answer together.)

SECTION-A

1. a) Describe the pathology of stomatitis in domestic animals. 4
b) What do you understand by ranula and salivary mucocele? 3
2. a) Write down the pathogenesis of white muscle disease. 3
b) Differentiate rickets from osteomalacia. Enlist the pathology of rickets in calves. 3
c) What do you understand by fibrous osteodystrophy? 1
3. a) Describe morphologic classification of anemia with examples. 4
b) Write a short note on splenomegaly. 3
4. a) How will you differentiate bovine nasal granuloma from nasal polyp? 2
b) Briefly describe different stages of pneumonia. 3
c) What is fetalization and cornification of lungs? 2
5. a) What is early embryonic death? 1
b) Write down the pathogenesis of formation of follicular, luteinized and cystic corpora lutea cysts in cows. 4
c) Explain why uterus becomes more susceptible to infections during luteal phase. 2
6. Write short notes on any two (2) of the following. 3.5×2=7
i) Developmental anomalies of reproductive system ii) Nutmeg liver
iii) Traumatic reticulo-pericarditis

SECTION-B

7. a) Define bloat and vagus indigestion. 2
b) Write down the common causes and consequences of choke in animals. 2
c) Suppose a mature cow is suddenly died with the history of ingesting of a large volume of cooked rice and rice gruel. What are the probable causes of death and what would be the necropsy findings in this cow? 3
8. a) Suppose a horse died after exercising in morning following holidays with a history of providing full work ration. What is the probable cause of death and what gross and microscopic lesions you might expect during necropsy and examination of histopathological slides prepared from the affected tissue? 3
b) Write down the pathology of solar dermatitis and hump sore. 3
c) Enlist five pathological conditions of joints. 1
9. a) What is volvulus and intussusception? 2
b) Define and classify cirrhosis on the basis of cause. 2
c) Write down the types of gastritis and enteritis. 2
d) How do you diagnose toxic hepatitis microscopically? 1
10. a) Enlist the etiologies of encephalitis. 2
b) What do you understand by 'Gitter cell' and 'Wallerian degeneration'? 2
c) Write down the pathogenesis and pathology of simple goiter. 3
11. a) What is Pyelonephritis? Which breed of cat has a higher prevalence of polycystic kidney disease? 2
b) Write down the microscopic lesions of interstitial nephritis. 2
c) Describe briefly the predisposing factors that facilitate urolithiasis. 3
12. a) Define abortion, stillbirth, phimosis and paraphimosis. 2
b) Enlist infectious diseases that cause abortion and stillbirth in animals. 2
c) Why does retention of placenta occur commonly in brucellosis? 3

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2023
Course Title: Fundamental of Clinical Medicine (Theory)
Course Code: FCM-301 (T)
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer 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 medicine, clinical medicine, presenting sign and physical sign. 2
 b) Classify prognosis. Write down the findings you may find in palpation and percussion of an organ. 1+2=3
2. a) Differentiate between pleurisy and pneumonia. Describe the principles of diagnosis. 1+2=3
 b) Briefly explain the clinical and paraclinical examination of rumen and reticulum of an animal. 3
3. a) Enlist various routes of drug administration. 1
 b) Classify disease according to genesis and clinical manifestation. 3
 c) What are the normal ranges of vital signs of cattle, goat, horse & dog? 2
4. a) Discuss the clinical examinations you can perform in the head region of an animal. 3
 b) Briefly describe the diagnostic procedures of ascites through physical examination. 3

SECTION-B

5. a) Define demeanour. Enlist different demeanour in animals with appropriate example of disease. 0.5+2.5=3
 b) Define ballottement. Note down the examination procedures of eye in cattle. 1+2=3
6. a) What do you mean by vascular permeability, bleeding time and clotting time? How would you detect them? 3
 b) Define & classify treatment. Write down the general principles of treatment of an animal. 1+2=3
7. a) Define & enlist various types of paracentesis. Briefly describe subcutaneocentesis with interpretation of different types of fluid you may find in this procedure. 1+2=3
 b) Define and classify reflex. Illustrate the clinical signs and measurement procedures of degree of dehydration in different species. 1+2=3
8. Write short notes on (any three): 3×2=6
 - a) Sending samples in laboratory
 - b) Tracheal percussion
 - c) Key abnormality method of diagnosis
 - d) Anamnesis

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2023
Course Title: Veterinary Entomology
Course Code: VEN-301 (T)
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer three (3) questions from each section where question number 1 is compulsory. Use separate answer script for each section. Fractions of the questions are encouraged to answer together.)

SECTION-A

1. a) Define 'Veterinary Entomology'. Mention the significance of 'Veterinary Entomology' for better animal health. 3
b) Classify 'Diptera' with examples. 2
2. a) Differentiate the features of 'soft tick' and 'hard tick' with examples. 3
b) Discuss the general life cycle of 1, 2 and 3 host tick with examples. 3
3. a) Briefly discuss the life cycle and pathogenic significance of 'horseflies' in animals. 3
b) Write down the scientific name of vector(s) of the following diseases/conditions. 0.5×6=3
i) Dengue ii) Chandipura virus disease iii) Habronemiasis
iv) Dipylidiasis v) Sleeping sickness vi) Bovine onchocerciasis
4. Write short note on any two (2) of the following. 3×2=6
i) Flea allergy dermatitis in pets
ii) Scabies in animals
iii) Warble fly infestation in cattle

SECTION-B

5. a) What are the possible methods of disease transmission by an arthropod vector? 3
b) How does the salivary secretion of a tick facilitate blood sucking activities on a host? 3
6. a) - Write down the vector importance of the following arthropods. 0.5×6=3
i) *Hyalomma truncatum* ii) *Culex pipens* iii) *Xenopsylla cheopis*
iv) *Culicoides* spp v) *Tabanus striatus* vi) *Haematopinus suis*
b) Briefly describe the life cycle and pathogenic significance of '*Gasterophilus intestinalis* infestation' in a horse. 3
7. a) How will you morphologically identify the following arthropods in a clinical parasitology laboratory? 0.5×6=3
i) *Knemidocoptes mutans* ii) *Boophilus annularis* iii) *Tabanus rubidus*
iv) *Lipeurus caponis* v) *Phlebotomus argentipes* vi) *Pulex irritans*
b) 'Brachyceran' are more efficient mechanical vector than 'Nematoceran'-justify. 3
8. a) Briefly describe the bionomics of 'flea' and 'sandfly' in Bangladesh. 3
b) Write down the management, control and prevention of myiasis in a calf. 3

Chattogram Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2023
Course Title: Breeder and Hatchery Management
Course Code: BHM-301(T)
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer **three (3)** questions from each section where question number **one (1)** and **five (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). | What is hatchery supply flock and elite line? Mention the qualitative and quantitative traits of elite or pure line chicken. | 4.0 |
| | b). | List ten breeder hatcheries of chicken available in Bangladesh. | 2.0 |
| 2. | a). | Write the pre-requisites of managing breeder flock under environmental control house. | 3.0 |
| | b). | Differentiate broiler parent stock from commercial layer stock. | 3.0 |
| 3. | a). | What is spiking and SSF? Mention the ideal ratio of male and female and their mixing procedure in broiler parent stock farm. | 3.0 |
| | b). | What is fertility? Mention how would you increase the fertility of a breeder flock. | 3.0 |
| 4. | a). | What is broodiness? Write the procedure of selecting broody hen for hatching egg. | 3.0 |
| | b). | Briefly discuss a breeding policy for the improvement of our local chicken breed. | 3.0 |

SECTION-B

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|----|-----|---|-----|
| 5. | a). | How would you measure uniformity in parent stock? Write the outcomes of good or bad uniformity in laying flock. | 3.0 |
| | b). | List the factors that affect the uniformity of breeder flock. | 2.0 |
| 6. | a). | Discuss the feeding system of layer parent stock. | 3.0 |
| | b). | List the major nutrients required in formulation of layer ration. | 3.0 |
| 7. | a). | Give the names of parents of a cross-bred progeny. | 2.0 |
| | b). | Write the differences in egg production performances among broiler breeder, layer breeder and strain breeder. | 3.0 |
| | c). | What is the production differences between breeder stock and commercial strain? | 1.0 |
| 8. | a). | Write the essential requirements of incubation and hatch of an egg. | 3.5 |
| | b). | Give the formula in determining fertility and hatchability. | 2.5 |

Chattogram Veterinary and Animal Sciences University

DVM 3rd Year 1st Semester Final Examination-2023

Course Title: Pharmacology and Therapeutics

Course Code: PHT-301 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **three (3)** questions from each section where question number **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the questions are encouraged to answer together.)

SECTION-A

1. a) Classify antibiotics according to their mode of action. 4
b) Describe the different mechanism of developing antimicrobial resistance against common pathogen in veterinary medicine. 2
c) Define bacteriostatic and bactericidal antibiotics. 2
d) Define therapeutics, therapy and therapeutic triangle. 3
2. a) Mention the antibacterial spectrum of tetracycline. 4
b) Describe the side effects of cephalosporin in dogs and small animals. 4
c) Aminoglycosides exert antibacterial action by irreversible binding to one or more receptors protein on the 30S subunit of the bacterial ribosome and thereby interfering with mRNA translation process. Mention the ways of these antibacterial action. 4
3. a) Enlist some precautionary measures that you should follow during sulfur drug administration. Write down the mode of action, indication and contraindication of sulfur drugs. 4
b) Point out the common properties of macrolides. Write down the mode of action, pharmacokinetics and adverse effects of macrolides. 4
c) Mention five NSAID. Write down the mode of action of one NSAID which is safe in pregnancy. 2
d) Differentiate phytochemicals with herbal drugs. 2
4. a) Classify endocrine drug. Mention the endocrine drug that are used for repeat breeder cow and cystic ovarian disease with specific dosage. 4
b) What are the therapeutic indications of progestins and thyroxin in cattle and dog, respectively? 4
c) How will you use Fartagyl and Receptal for reproductive abnormalities in cattle? 4

SECTION-B

5. a) Classify antineoplastic drugs with examples. 2
b) Do you know about AWaRe? Why Chloramphenicol and nitrofurantoin are detrimental for human health? 3
c) Describe the absorption, distribution and excretion pathways along with biotransformation mechanism of digoxin. 3
d) Suppose, A female goat of 2 years old was admitted to SAQTVH with the history of anorexia. After clinical examination, the duty doctor confirmed this goat was suffering from hepatitis. Mention two antibiotics that are not suitable for the patient with specific reason. 3
6. a) Mention two anticestodal drugs that are commonly used in empty and full stomach, respectively. 2
b) Which antihistaminic drugs are commonly used in veterinary practices? Mention their generic name, trade name, dosage and indications. 3
c) Classify drugs that act against roundworm infestation. 4
d) Describe the pharmacodynamic of albendazole against ascarids and hookworm infection in ruminants. 3
7. a) Classify penicillin based on source, route of administration, resistant to hydrolyzing enzyme and resistant to acids. 4
b) Define probiotic, antibiotic and prebiotic. 3
c) What is the impact of rapid intravenous injection of enrofloxacin in horses? 2
d) Which antibiotics inhibit topoisomerases enzyme? Mention the pharmacokinetic interaction of this antibiotic. 3
8. a) Why should you never consider paracetamol to be prescribed in cat? Briefly discuss about it. 3
b) Briefly describe the mode of action, dose, indications and contraindications of piperazine citrate in calf. 4
c) Topical and systematic drugs are commonly used for ectoparasitic infection. Mention at least two highly effective topical and systematic drugs with trade name and dosage. 3
d) Enlist some properties of ideal antiseptics and disinfectants. 2