

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

Course Title: Systemic Pathology (Theory)

Course code: SPT- 301 (T)

Full Marks: 70, Time: 3 Hours

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

SECTION-A

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|----|----|--|---|
| 1. | a) | Briefly describe the stages of pneumonia. | 3 |
| | b) | List the special types of pneumonia. Describe the pathogenesis of gangrenous pneumonia in animals. | 4 |
| 2. | a) | Enlist ten pathological conditions of digestive system. | 2 |
| | b) | Define choke and mention some causes of choke in livestock. What is the relationship between choke and free gas bloat? | 3 |
| | c) | Write down the pathogenesis of reflux esophagitis. | 2 |
| 3. | a) | What is pericarditis? Briefly describe different forms of pericarditis. | 3 |
| | b) | Write down the pathogenesis of brown induration of lung. | 4 |
| 4. | a) | Define and classify anemia. | 2 |
| | b) | Write down the causes of hemolytic and haemorrhagic anemia. | 3 |
| | c) | Write down the microscopic lesions of anemic blood picture stained with Wright's stain. | 2 |
| 5. | a) | Define orchitis, phimosis, paraphimosis and balanoposthitis. | 2 |
| | b) | What do you mean by sterility and infertility? | 2 |
| | c) | What are the cysts commonly found in ovary and mesovarium? Differentiate follicular cyst from luteal cyst. | 3 |
| 6. | a) | How does vitamin A deficiency cause urolith formation? | 2 |
| | b) | What are the causes and types of glomerulonephritis? | 2 |
| | c) | Describe the pathogenesis and pathology of immune mediated glomerulonephritis. | 3 |

SECTION B

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|-----|----|---|---|
| 7. | a) | What is pyometra? Write down the pathogenesis of pyometra in cows. | 3 |
| | b) | Define abortion and still birth. | 2 |
| | c) | List the infectious agents causing abortion and still birth. | 2 |
| 8. | a) | What is cirrhosis? Briefly describe different forms of cirrhosis. | 3 |
| | b) | Describe the mechanisms of ruminal acidosis. | 4 |
| 9. | a) | Define rickets and osteomalacia. Write down the etiology and pathology of rickets. What is the main difference in pathogenesis of rickets and osteomalacia? | 4 |
| | b) | Write down the pathology and pathogenesis of fibrous osteodystrophy. | 3 |
| 10. | a) | Differentiate between: parakeratosis from hyperkeratosis and erosion from ulcer. | 2 |
| | b) | What is gigantism? Which hormone is responsible for gigantism? | 2 |
| | c) | Write down the pathogenesis and pathology of white muscle disease in a lamb. | 3 |
| 11. | a) | Define pleuritis, pulmonary atelectasis and fetalization of lungs. | 3 |
| | b) | Differentiate pneumonia from pneumonitis, and nasal polyps from bovine nasal granuloma. | 3 |
| | c) | Define bronchiectasis. | 1 |
| 12. | a) | Define gastritis and describe the forms of gastritis. | 3 |
| | b) | Write down the mechanism of traumatic reticulo-pericarditis in cattle. | 3 |
| | c) | Name four parasite that can cause gastritis and enteritis. | 1 |

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

Course Title: Virology (Theory)

Course code: VIR- 301 (T)

Full Marks: 70, Time: 3 Hours

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

SECTION-A

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|------------------|----|---|-------------|
| 1. | a) | Define virus. Virus can be in living or non-living phase—justify this statement. | 1+1=2 |
| | b) | Explain the term 'lyophilization' | 2 |
| | c) | Name three lymphotropic viruses in animals and three in birds with respective disease names. | 3 |
| 2. | a) | Describe the outcome of virus replication in host cells. | 2 |
| | b) | List the enzymes that are essential for genomic replication of both DNA and RNA viruses. | 2 |
| | c) | Write down symmetry of virus. | 3 |
| 3. | a) | Illustrate the methods of virus inactivation and preservation. | 4 |
| | b) | Enlist two viruses in each case that cause lesions in following organs: i. Kidneys of chicken ii. Skin of cattle iii. Lungs of birds iv. CNS of dogs v. GI tract of chicken vi. Proventriculus of chicken | 0.5×6
=3 |
| 4. | a) | Define LPAIV and HPAIV. Mention the OIE criteria for HPAIV. | 1+2=3 |
| | b) | Differentiate between; i. Marek's disease virus and lymphoid leukosis virus ii. Infectious bronchitis virus and infectious laryngotracheitis virus | 2+2=4 |
| 5. | a) | Enlist 6 enveloped and 6 naked viruses with diseases they cause in animals. | 3 |
| | b) | Mention the cytopathic changes that are observed during propagating following viruses into the cell culture: i. Foot and mouth disease virus, ii. Duck plague virus, iii. fowl pox virus iv. Marek's disease virus | 4 |
| 6. | a) | Explain biological properties of antiviral chemicals which are secreted by host cell itself in response to virus infection. | 4 |
| | b) | Briefly explain the transcription process of DNA viruses. | 3 |
| SECTION B | | | |
| 7. | a) | Which classification of viruses are the most modern method and what are the basis of this classification? | 2 |
| | b) | What are PrP ^c and PrP ^{sc} ? Mention the disease produced by prion in different animals and human. | 2 |
| | c) | Enlist the different strains of IBDV and NDV. | 3 |
| 8. | a) | Define bacteriophage. Write down the properties of bacteriophage. | 1+2=3 |
| | b) | Mention the family, symmetry, sense and site of replication of the following viruses – blue tongue virus, duck viral hepatitis virus, bovine ephemeral virus and avian leukosis virus | 4 |
| 9. | a) | How do viruses evade the host immune response? | 3 |
| | b) | Mention the physio-chemical properties of IBDV and Rabies virus | 4 |
| 10. | a) | Write down the properties of foot and mouth disease and peste-des-petits ruminants' viruses. List the serotypes of FMDV that are circulating in Bangladesh. | 3+1=4 |
| | b) | Apprise the different groups of bovine papilloma virus with their host response. | 3 |
| 11. | a) | Write down the route of inoculation and the lesions produced in egg embryo following inoculation of following virus; i. duck plague virus ii. Chicken anemia virus iii. Infectious bronchitis virus iv. Fowl pox virus v. Newcastle disease virus | 1×5=5 |
| | b) | Mention the different polypeptide of NDV with their specific roles. | 2 |
| 12. | a) | Name 5 antiviral drugs. | 1 |
| | b) | Write down the laboratory diagnosis of the following viruses—i. Rabies virus ii. Canine parvo virus | 2×3=6 |

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

Course Title: Pharmacology & Therapeutics (Theory)

Course code: PHT- 301 (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 number **1 and 5 is 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 chemotherapy and chemotherapeutics? 3
b) What is drug resistance? How does an antibiotic develop resistance to bacteria? 4
c) Briefly describe the chemotherapeutic triangle. 4
2. a) Differentiate heart tonic from heart stimulant. Write down the pharmacological action of adrenaline. 4
b) Write down the mode of action, doses, indications and contraindication of digitalis in dog. 4
c) What are the uses of heart depressant? Write down the mode of action and dose of quinolone in livestock. 4
3. a) What are necessary precautions you should consider when you use sulfur drug? Write down the mode of action, indications and contraindication of sulfur drugs. 4
b) Classify penicillin with examples. Write down the mode of action and clinical application of penicillin in animal. 4
c) Why tetracycline is contraindicated in production and pregnant animals? Write down the mode of action and doses of tetracycline in cattle. 4
4. a) What does mean by NSAID. Mention five NSAIDs. Write down the mode of action one NSAID which is safe in pregnancy. 4
b) Why should you never consider paracetamol to be prescribed in cats? What are the endocrine drugs? Classify them. 4
c) Describe the proper use of corticosteroid drugs in livestock. Why are they called life saving drugs? 4

SECTION B

5. a) Differentiate quinolone from fluroquinolone? Write down the mode of action, indications and contraindication of ciprofloxacin in poultry. 4
b) Name the immunosuppressive drugs. How do these drugs cause immunosuppression? 3
c) Write down the dose, mode of action, indications and contraindications of macrolide in livestock. 4
6. a) Write down the characteristics of an ideal anthelmintic? How does levamisole act as immune modulatory anthelmintic? 4
b) Briefly describe the mode of action, dose, indications and contraindications of piperazine citrate in calf. 4
c) List the anti coccidial drugs in poultry. Which drug is the best for babesiosis in cattle? Write down the mode of action and doses of that drug. 4
7. a) Define and classify antifungal drugs with examples. Write down the mode of action and indications of griseofulvin in livestock. 4
b) Write down the mode of action, dose, indications and contraindications of colistin sulfate in poultry. 4
c) Enlist the drugs used for tuberculosis. Write down the dose, mode of action and contraindications of isoniazid in cattle. 4
8. Write short notes on (any four) 4×3= 12
a) Acyclovir, b) Oxytocin c) Dexamethasone d) Ivermectin e) Anticancer drug

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

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 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 pathognomonic signs, lesions, primary disease, exotic disease, emerging disease and contagious disease 6
b) Differentiate the following term; 2
i. Clinical propedeutics and clinical manifestation ii. Tentative and confirmatory diagnosis
2. a) Make a checklist of useful equipment for clinical examination of animal. 2
b) Describe inspection and auscultation techniques of clinical examination. 4
c) Write down the palpation findings and tracheal sounds with interpretation. 3
3. a) What is paracentesis? Write down the standard procedure of subcutaneous centesis and abdominal paracentesis with interpretation. 4
b) Interpret the disease (s) and condition (s) for the following symptoms: 2
i. Cold ears ii. Sunken eyes iii. Chewing her cud iv. Pale mucous membrane
c) What do you mean by capillary refill time? How can you perform this test for a dog? 3

SECTION B

4. a) List of routes of administration of drug. What do you mean by drug abuse and drug dependency? 3
b) Write down the standard procedures of taking vital signs of common species with normal values. 2
c) Describe the excitation and depression states of an animal. 4
5. a) What is diagnosis, prognosis and advice? Briefly describe the relationships between prognosis and advice. 3
b) Write down the sequential steps of gastro-intestinal system examination. 3
c) Write down the procedure and interpretations of clinical examination / tests used to detect postural abnormalities. 3
6. a) As a clinician, how will you collect and transport of specimen of blood and feces from field to laboratory? 3
b) How can you diagnose traumatic reticulo-peritonitis in field condition? Describe any two of them. 3
c) Write short notes on body condition score and skin fold test. 3

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

Subject: Dairy Microbiology (Theory)

Course Title: 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 number **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) | State the name of important bacterial families found in milk and milk products. | 1 |
| | b) | Classify the family Enterobacteriaceae with common characteristics and examples. | 3 |
| | c) | Write about the bacteria belonging to genus Lactobacillus. | 2 |
| 2. | a) | Define lactic acid bacteria and state its function in cheese preparation. | 2 |
| | b) | Mention the microbiological characteristics of good quality market milk. | 1.5 |
| | c) | Briefly describe the cleaning and sanitization procedure of permanent pipelines. | 2.5 |
| 3. | a) | 'The cow is a basis of possible source of pathogen'- explain it | 2 |
| | b) | What are the problems of coliform bacteria in the field of dairy industry in Bangladesh and how will you control it? | 2 |
| | c) | Discuss the microbiology of cultured butter. | 2 |
| 4. | a) | Classify lactic culture with example. | 1.5 |
| | b) | Briefly discuss the common defects of market dahi culture. | 3.5 |
| | c) | What is lyophilization? | 1 |

SECTION B

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|----|----|---|-----------|
| 5. | a) | What are the different ways and sources of contamination of milk and milk products? Briefly discuss them. | 2 |
| | b) | Discuss how will you ensure milk hygiene? | 3 |
| 6. | a) | State the microbiology of butter and cheese. | 2 |
| | b) | Write down the microbiological standard of market milk, table cream, Grade A raw milk and Grade A pasteurized milk. | 2 |
| | c) | State the causes of developing inadequate acidity in starter culture. | 2 |
| 7. | a) | State the processes of destroying microorganisms found in milk and milk products. | 2 |
| | b) | Enlist the milk-borne disease with their preventive and controlling measures. | 2 |
| | c) | Discuss a method with which you can supply pathogen free dairy products. | 2 |
| 8. | | Write short notes (any four) | 1.5×4 = 6 |
| | a) | Probiotics | |
| | b) | HACCP | |
| | c) | Thermoduric bacteria | |
| | d) | Syneresis | |
| | e) | Food poisoning | |

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

Course Title: Breeder & Hatchery Management (Theory)

Course code: BHM- 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 number **5 is compulsory**. Use separate answer script for each section. Fractions of the questions must be answered together.)

SECTION-A

- | | | | |
|----|----|--|-----|
| 1. | a) | Define pure line, grand parent stock and strain. | 2 |
| | b) | State the lighting programme for a breeder flock. | 1.5 |
| | c) | What is uniformity? Mention the process of measuring uniformity in a breeder flock. | 2.5 |
| 2. | a) | State the management practices for broiler breeder stock. | 3 |
| | b) | What is biosecurity? How would you maintain biosecurity in a breeder flock? | 3 |
| 3. | a) | How can you improve egg shell quality? Discuss the factors that affect egg shell quality of hatching eggs. | 3 |
| | b) | State how would you store hatching eggs for incubation? | 3 |
| 4. | a) | State the nutritional requirement of male broiler parent stock. | 3 |
| | b) | Discuss the embryonic development of a chick. | 3 |

SECTION B

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|----|----|---|-----------|
| 5. | a) | What is hatchability? Mention the factors which are responsible for poor hatchability of egg. | 3 |
| | b) | Distinguish between rice husk incubator and modern incubator. | 2 |
| 6. | a) | State the hormones responsible for ovulation of egg formation. | 3 |
| | b) | Discuss the factors that affect chick quality. | 3 |
| 7. | a) | State the factors which are required for selecting of hatching egg. | 3 |
| | b) | What is feed restriction? Discuss the quantitative method of feed restriction for a breeder flock | 3 |
| 8. | | Write short note (any four): | 1.5×4 = 6 |
| | a) | Spiking | |
| | b) | Disposal of hatchery wastes | |
| | c) | Cannibalism and egg production | |
| | d) | Taking off hatch | |
| | e) | Stressor on egg quality and hatchability | |
| | f) | Challenge feeding | |

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

Subject: Large Animal Production (Theory)

Course Title: LAP- 301 (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 number **1 and 5 are compulsory**. Use separate answer script for each section. Fractions of the questions must be answered together.)

SECTION-A

1. a) Classify beef breeds according to origin. 3
b) Explain the suggested feeding standard of Bangladesh Livestock Research Institute (BLRI). 8
2. a) Discuss the different economic traits of buffaloes. 3
b) Discuss the factors that affect the quality and quantity of milk in buffaloes. 4
c) Describe the prospects and constraints of buffalo farming in Bangladesh. 5
3. a) What are the hurdles of commercial dairying in Bangladesh and how will you overcome those? 6
b) What are the existing feeding and housing practices of backyard dairying in Bangladesh? 6
4. a) How will you select a pair of bullocks for tillage operation? 6
b) Explain the husbandry practices of draught cattle. 6

SECTION B

5. a) How do the high temperature and high humidity affect the temperate type cattle in Bangladesh? 8
b) Why the *Bos indicus* is well adapted in Bangladesh? 3
6. a) What do you mean by 'drying off'? What are the consequences of not making a cow dry? 4
b) Discuss any one of the drying off procedures suitable in Chattogram. 5
c) What should be the nutritional composition of ration during drying period? 3
7. a) Explain the reproductive features of river type buffalo. 8
b) Discuss the adaptability mechanism of buffaloes in the nature. 4
8. a) What are the guidelines you want to provide to the commercial dairy farmers of Chattogram for achieving one calf every year from each cow? 6
b) Milk marketing time of 'Liza Dairy Farm' is at 8.30 AM. Make a schedule of daily activities for the mentioned farm. 6

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

Course Title: Veterinary Entomology (Theory)

Course code: VEN- 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 number **5 is compulsory**. Use separate answer script for each section. Fractions of the questions must be answered together.)

SECTION-A

1. a) Define arthropod. Briefly illustrate the structure of body of a typical arthropod. 3
b) Morphologically differentiate the suborder Nematocera, Brachypera and Cyclorrhapa with examples. 3
2. a) Write down the vector importance of the following arthropods: 3
i) *Rhipicephalus evertsi*
ii) *Xenopyslla cheopis*
iii) *Phlebotomus argentipes*
iv) *Simulium sp*
v) *Anopheles sp*
vi) *Hematopineus*
b) Write down the life cycle and pathogenic significance of *Gasterophilus intestinalis* infection in Equids 3
3. a) Define vector competency. Classify biological vectors with appropriate examples. 3
b) Write down the scientific name of vector(s) of the following diseases / conditions. 3
i) Sleeping sickness ii) Bluetongue iii) Tuberculosis iv) Leucocytozoonosis v) Red water fever
vi) Bubonic plague
4. a) Differentiate 'myiasis' from 'strike'—Briefly describe the risk factors associated with them. 3
b) Illustrate the non-therapeutic measures of tick control. 3

SECTION B

5. a) Write down the life cycle, breeding sites and distribution of 'sandflies' in Bangladesh. 3
b) What are the possible methods of disease transmission by an arthropod vector? 2
6. a) How will you morphologically identify the following arthropods in a laboratory? 3
i) *Phlebotomus paptosi*
ii) *Aedes albopidus*
iii) *Hematopinus bispinosa*
iv) *Demodex canis*
v) *Culicoides imicola*
vi) *Tabanus striatus*
b) 'Brachyceran' is more efficient mechanical vector than 'Nematoceran'-- Justify 3
7. Write short note on any two of the following: 2×3
=6
i) Tick paralysis
ii) Pediculosis
iii) Flea infestation in dogs
8. a) Write down the life cycle and pathogenic significance of 'Gadfly' infestation in sheep. 3
b) List available lice, ticks and flies of livestock and poultry in Bangladesh. 3

Chattogram Veterinary and Animal Sciences University

DVM 3rd year 1st Semester Final Examination 2019

Course Title: Animal Breeding (Theory)

Course code: ABR- 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 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 Breeding? State the objectives for Animal Breeding study. 1
b) Distinguish between qualitative and quantitative traits with examples. 1
c) Narrate how Robert Bakewell derives the three basic principles of animal improvement from his animal breeding experiment? 3
2. a) What is breeding value? Write down the importance of breeding value estimation. 3
b) How will you partition phenotypic variance? Additive genetic variance is more important and effective than the other genetic variances- explain. 3
3. a) What is heritability? Explain why the repeatability value is higher than the heritability value for a trait. 3
b) How will you estimate the heritability value for daily milk yield of cows using intra class correlation methods? 3
4. a) What is inbreeding? Write down the effects of inbreeding depression in animal breeding. 3
b) Describe how will you develop a layer strain using breeding strategies. 3

SECTION B

5. a) Explain the term gene and genotype frequency with examples. 1
b) State the factors under systemic process those changes the gene and genotypic frequencies of a population. Proof selection does not create new genes just it change the gene frequencies. 3
c) A population are in equilibrium if it holds all the necessary condition of Hardy-Weinberg law- proof it. 2
6. a) What do you mean by response to selection? State the factors those are responsible for enhance the genetic gain. 2
b) What is selection? Explain different kinds of selection with examples. 2
c) Illustrate genetic lag for dairy development in Bangladesh. 2
7. a) Explain the term hybrid vigour. Write down the application of heterosis in animal breeding. 3
b) Show heterosis value in F₁ generation is double than F₂ generation in case of dominant gene action. 3
8. a) State the current cattle breeding policy in Bangladesh. Explain its affects on dairy development in Bangladesh. 3
b) How will you select a proven bull for milk production in consideration of progeny testing breeding scheme? 3

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017
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 two questions** from each section of which question no **1 is compulsory**. Use separate answer scripts for each section. Fractions of the question must be answered together)

Section-A

1. a) Define anamnesis. Classify it. Briefly explain the way of asking questions while taking the clinical history. 3.0
- b) Enlist the recommended supplies for conducting physical examination of an animal. 2.0
- c) Write down the clinical manifestations of diseases. 3.0

2. a) Enumerate the key abnormality methods for making diagnosis of diseases. 2.0
- b) What are the sites of mucous membrane examination? Interpret the changes of the color of mucus membrane with exact causes. 3.0
- c) What do you mean by vital signs? How will you measure the important vital signs from animals? 4.0

3. a) Write down the anatomical location for following physical examination. 0.5×4=02
 - (i) Rumen motility test
 - (ii) Auscultation of lungs
 - (iii) Skin fold test
 - (iv) Palpation of superficial lymph node
- b) Write down the clinical and para-clinical examination of the following organs or system. 4×1=4
 - (i) Reticulum
 - (ii) Muscular-skeletal system
 - (iii) Liver
 - (iv) Eye
- c) Define clinical restraining. Enumerate one method of restraining of each of the following species. 3×1=3
 - (i) Cattle
 - (ii) Horse
 - (iii) Dog

Section-B

4. a) What do you mean by clinical management of an individual animal? What would be your advice for following diseases? 3X1=3
 - (i) Aspiration pneumonia
 - (ii) Acidosis
 - (iii) Traumatic reticuloperitonitis
- b) Differentiate among hunger, inappetance and anorexia. 3.0
- c) Briefly explain the method of diagnosis of pain, dehydration, malnutrition and deafness through physical examination. 3.0

5. a) A 4 years old high yielding cow brought to SAQTVH with complain of inappetance distended abdomen, diarrhea, and dehydration. 3×2=6
 - (i) What physical examination would you do for the diagnosis of this patient?
 - (ii) What samples would you collect and what paraclinical procedures would you recommend for it?
 - (iii) How would you interpret all findings for the diagnosis of this patient?
- b) What do you mean by capillary refill time? Briefly explain the findings you may get from palpation and percussion of an organ or tissue. 3.0

6. a) What are the differences between percussion and auscultation technique? 1.0
- b) How will you differentiate fever from hyperthermia? 2.0
- c) What are the different methods of restraining? Describe briefly. 6.0

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination 2016
Course Title: Breeder and Hatchery Management (Theory)
Course Code: BHM-301
Full Marks: 35; Time: 2 Hours

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

Section-A

1. a) Define grandparent stock, parent stock and hybrid. 1.5
b) Discuss the cock management system in a breeding flock. 2.5
c) Distinguish between broiler breeding parent stock and layer breeding parent stock. 1.0
2. a) What is control feeding program? How would you maintain control feeding program in a breeder flock? 4.0
b) State the phase feeding and challenge feeding systems in poultry. 2.0
3. a) What is selection? Mention the selection criteria of breeding stock? 3.0
b) Mention the importance and measuring system of uniformity in a breeding flock. 3.0
4. Write short note (**any four**) (1.5×4)=6.0
 - a) Nest box;
 - b) Precocity;
 - c) Spiking;
 - d) Sexually Separate Feeding (SSF);
 - e) Rearing system of breeding flock; and
 - f) "Taking off" hatch

Section-B

5. a) Mention the incubation period of chicken, pigeon, duck, quail, ostrich, turkey, goose and peafowl. 1.5
b) Define fertility, hatchability, pause and clutch. 1.5
c) State the factors that affect fertility and hatchability of eggs. 3.0
6. a) What is quality chick? How would you evaluate them? 2.0
b) What factors would you consider for setting up a hatchery? 2.0
c) What is fumigation? State the fumigation procedures for hatching eggs. 2.0
7. a) Briefly discuss the embryonic development of hatching egg. 3.0
b) Mention the steps of hatching duck eggs by rice husk incubation method. 3.0
8. Write short note (**any three**) 2.0×3=6.0
 - a) Sexing day old chicks;
 - b) Natural incubation;
 - c) Stocking density;
 - d) Balut;
 - e) Bio-security; and
 - f) Pure line

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination 2016
Course Title: Animal Genetics (Theory)
Course Code: AGN-301(T)
Full Marks: 70; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **three** questions from each section of which **question nos 1 and 5 are compulsory**. Use separate answer scripts for each section)

Section-A

- | | | | |
|----|----|--|-----|
| 1. | a. | Define animal genetics, gene, genome and phenotype. | 3.0 |
| | b. | Briefly describe the application of genetics in animal agriculture. | 4.0 |
| | c. | Explain " Mendel's Law of Segregation " with example in animal. | 4.0 |
| 2. | a. | What is meant by diploid? Mention the diploid chromosome numbers in goat, sheep, dog, horse, chicken and buffalo (river type). | 4.0 |
| | b. | Briefly describe the changes in chromosome structure with neat diagram. | 6.0 |
| | c. | Enlist special type of chromosomes that are found in eukaryotes. | 2.0 |
| 3. | a. | What is epistasis? Explain non-epistatic intergenic genetic interaction. | 4.0 |
| | b. | Distinguish between epistasis and dominance. | 2.0 |
| | c. | Write down about the sex chromosome mechanism in sex determination. | 6.0 |
| 4. | a. | Distinguish between incomplete dominance and co-dominance. | 2.0 |
| | b. | Describe different types of linkage with significance. | 6.0 |
| | c. | Discuss example (s). Why linkage is an exception to " Mendel's' Second Law "? | 4.0 |

Section-B

- | | | | |
|----|----|---|-----|
| 5. | a. | What is mutation? How do gene mutations arise? | 2.0 |
| | b. | Briefly describe the molecular basis of gene mutation. | 6.0 |
| | c. | Write in short about factors affecting mutation rate. | 3.0 |
| 6. | a. | Distinguish between sex-linked and sex-limited traits. | 2.0 |
| | b. | Briefly explain how sex is determined by the sex chromosome mechanism. | 5.0 |
| | c. | Describe the sex-pili mediated genetic recombination in bacteria. | 5.0 |
| 7. | a. | Define exon and intron. | 2.0 |
| | b. | Write down the bio-chemical reactions in DNA replication. Mention the " Chargaff's rule ". | 5.0 |
| | c. | Enlist different types of RNA with their key functions. | 5.0 |
| 8. | | Write short notes on any three of the followings: | |
| | a. | Genetic disorder | |
| | b. | Test cross and back cross | |
| | c. | Use of genetic engineering in animal improvement | |
| | d. | Aneuploidy | |

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination 2016
Course Title: General Pharmacology (Theory)
Course Code: GPH-301
Full Marks: 70; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **three** questions from each section of which question no. **1 and 5** are compulsory. Use separate answer script for each section.)

Section-A

- | | | |
|----|---|-----|
| 1. | a) How do you explain “ Pharmacology ”? Write down the allied disciplines of pharmacology. | 3.0 |
| | b) Describe the following terminologies: | 5.0 |
| | i) Drug | |
| | ii) Poison | |
| | iii) Side effect | |
| | iv) Toxic effect | |
| | c) Why is bio-transformation needed for drugs in biological bodies? | 3.0 |
| 2. | a) Define and classify expectorants with examples. | 3.0 |
| | b) Write down the doses, mode of action, indications and contraindications of saline expectorant in livestock. | 3.0 |
| | c) Suppose, an adult cattle was brought to TVH with the problem of acute diarrhea and dehydration. What kind of drugs will you consider treating the animal and write down the mode of action, doses, route of administration and side effects. | 6.0 |
| 3. | a) Define and classify diuretics. Enlist the indications of diuretics commonly used in animals. | 4.0 |
| | b) Write down the mode of action, doses, therapeutic purposes, and contraindications of high ceiling diuretics. | 4.0 |
| | c) Are urinary acidifiers and alkalizer commonly used in veterinary practices? If yes, what are those and how do they work? | 4.0 |
| 4. | a) Differentiate between alkaloids and glycosides with examples. | 4.0 |
| | b) Which drugs do stimulate heart and how? Write their mode of action and doses. | 4.0 |
| | c) Is heart tonic different from heart stimulant? | 4.0 |

Section-B

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|----|--|--------|
| 5. | a) Explain the terms with examples: Carminatives, Antizymotics, Emetics and Antiemetic. | 4.0 |
| | b) Define and classify purgatives with examples. Write down the doses, mode of action, indications and contraindications of direct irritant purgative in cattle. | 3.0 |
| | c) Mention five antidiarrheal preparations with their mechanism of actions and doses. | 4.0 |
| 6. | a) Classify NSAIDs with examples. How does meloxican work during analgesia? | 3.0 |
| | b) Differentiate autacoids from hormones. What are the pharmacological actions and therapeutic uses of H ₁ and H ₂ receptor blockers? | 5.0 |
| | c) Explain mechanism of action, indications and adverse effects of using steroidal drugs in livestock. | 4.0 |
| 7. | a) Classify general anesthetics with examples. Mention the characteristics of an ideal anesthetic. | 4.0 |
| | b) A goat had been facing a problem of abscess at naval region. You are realized that surgical operation requires removing pus from that abscess. What kind of anesthetic agent will you suggest for that operation? Mention its name with required dose, mechanism of action and contradiction. | 4.0 |
| | c) Define and classify parasympathomimetic and anticholinergic drugs with examples. Write down the clinical uses of those agents. | 4.0 |
| 8. | Write short notes (any four). | 4×3=12 |
| | a) Bioavailability | |
| | b) Biological half life of drug | |
| | c) Drug potentiation | |
| | d) Pharmacokinetics | |
| | e) General mode of action of drugs | |