

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017
Course Title: Large Animal Production (Theory)
Course Code: LAP-301 (T)
Full Marks: 70; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any three questions from each section where Question no. 1 and 5 are compulsory. Fragmented answers are discouraged. Use separate answer scripts for each section.)

Section-A

- | | | |
|----|---|--------|
| 1. | a) Sketch the development of udder from birth to puberty in cattle. | 3.0 |
| | b) Define Steaming up, Down-calver and Freshening. | 1.5 |
| | c) Briefly describe the care and management of cow before and after freshening. | 4.5 |
| | d) State the procedures of milking. | 2.0 |
| 2. | a) Write down the taxonomy of cattle and buffalo. | 3.0 |
| | b) Describe the influence of climate on the adaptability of buffaloes. | 4.0 |
| | c) Write a note on "Buffalo Nutrition". | 5.0 |
| 3. | a) Make a list of common beef cattle breeds and Breed Associations of different countries. | 2.0 |
| | b) Suppose you are to start beef cattle production business with three of your partners. Now distribute the phases of beef cattle production system among your partners (including you); and describe each of your allocated production phases briefly. | 6.0 |
| | c) What problems you might face during the production of beef cattle in this country? | 4.0 |
| 4. | Write short notes on any three of the followings. | 3×4=12 |
| | a) Breeding between river type and swamp type buffaloes; | |
| | b) Common diseases of HYV dairy breeds in Bangladesh; | |
| | c) Breeding efficiency in buffalo farming; | |
| | d) Symptoms of estrous in cattle and buffaloes; and | |
| | e) Different types of dairy farming practices in Bangladesh; | |

Section-B

- | | | |
|----|---|-----|
| 5. | a) "Economic processing of fermented colostrums is not possible in Bangladesh" – justify. | 3.0 |
| | b) Which stage do you think is the most critical in a dairy cattle's life? Justify your answer. | 2.0 |
| | c) State different weaning systems and make a comparative discussion amongst them. | 4.0 |
| | d) State the considerations for using milk in calf-feeding. | 2.0 |
| 6. | a) List 5 (five) draft breeds of cattle available in Indian sub-continent. | 2.0 |
| | b) State the utility of draft animals in Bangladesh in relation to present context. | 4.0 |
| | c) Write down the training, care and feeding management of a draft cattle. | 6.0 |
| 7. | a) Determine the right timing for insemination during an estrous in a cow. | 3.0 |
| | b) Depict an improvement strategy to improve the milk production of your dairy herd of indigenous cows. | 3.0 |
| | c) State the factors affecting breeding efficiency of a cow. | 3.0 |
| | d) What are the measures that can be taken to improve breeding efficiency of cow in a herd? | 3.0 |
| 8. | a) Distinguish between river and swamp type buffaloes. | 2.0 |
| | b) Write down the breeding and feeding management of a buffalo bull. | 6.0 |
| | c) State the prospects and problems of buffalo farming in Bangladesh. | 4.0 |

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017
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 Six questions from each section of were question no 1 and 5 are compulsory. Use separate answer scripts for each section. Split answer is discouraged)

Section-A

1. a) Define drug and medicine with examples. 2.0
 b) Classify antimicrobials with examples. 3.0
 c) What is drug resistance? How an antibiotic develop resistance to the bacteria? 4.0
 d) Differentiate between chemotherapy and chemotherapeutics. 2.0
2. a) Write the source, dose of duration, mode of action, therapeutic use and side effects of sulphonamides in ruminant. 4.0
 b) Explain the term β -lactamase antibiotic. Mention some β -lactamase resistant antibiotics with their trade, dose, clinical uses and adverse effects in case of cattle. 4.0
 c) Criticize the combination of bacteriostatic with bacteriocidal antimicrobials. List in a tabular form at about synergistic and antagonistic action of (i) amoxicillin (ii) streptomycin (iii) Griseofulvin (iv) Bacitracin 4.0
3. a) Point out the common properties of aminoglycosides. Why streptomycin, gentamicin, amikacin singly are not very effective in treating infectious abscess? 4.0
 b) Write the mode of action, dose, therapeutic use and contraindication of penicillin. 4.0
 c) A 3 years old black bengal goat brought to SAQTVH with a history of profuse diarrhea, dehydration and dyspnoea for last 3 days. Here found diarrhetic feces surrounding the anal region and temperature revealed as 105⁰F. Which antimicrobial is useful for this case? Write its name with trade, dose and explain m/a of that drug. 4.0
4. a) Categorize antifungal drugs with example. Five days old poultry flock is affected with brooder pneumonia. Which drug would you prefer for this case? Write its name with m/a, dose and toxicity. 4.0
 b) How do piperazine and levamisole work against ascariasis in calf? "Levamisole acts as an immune modulator"-Justify the statement. 4.0
 c) Give the adverse effects of tetracyclines. 2.0
 d) How do fluroquinolone drugs work against bacterial disease? 2.0

Section-B

5. a) What are the endocrine drugs? Classify them. 3.0
 b) How will you diagnose hypothyroidism and hyperthyroidism in case of dog? Write down the m/a, dose, indication, contraindication of T3 and T4. 4.0
 c) A cow calved at least 6 weeks ago, behavioral sign is indiscriminate mounting of other cows. Clinical examination and rectal palpation showed that both ovaries enlarged, uterine horns show moderate tone and milk progesterone concentration is low. What is your diagnosis and give a prescription for it. 4.0
6. a) What are the immunosuppressive drugs. How is immuno-suppressive effects occurred by those drugs. 4.0
 b) Differentiate phytobiotics with herbal drugs. 2.0
 c) Differentiate ketoprophen with meloxican. Why clofence and chloramphenicol are banned in food animal practice. 4.0
 d) A cow is suffering from UTI. Select two antibiotics for her stating their mode of action and toxin effect. 2.0
7. a) What is a drug residue? How a drug residue is occurred and writes the fate of drug residue. 4.0
 b) A dog is suffering from severe ectoparasitic infestation. Write the treatment and management of this condition. 4.0
 c) Define autacoids. Briefly describe about histamine. 2.0
 d) How the abuse of steroidal drugs effect in livestock. 2.0
8. Write short notes on (any four) 4×3=12
 (a) Nutritional pharmacology
 (b) Metronidazole
 (c) NSAIDs
 (d) Herbal medicines
 (e) Thrombo-embolic drug

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017
Course Title: Breeder and 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 questions from each section where Question no. 5 (Five) is compulsory. Use separate answer scripts for each section.)

Section-A

1. a) Define incubation. What are the advantages of artificial incubation over natural incubation? 1.5
- b) Mention the incubation period, setting and hatching temperatures; relative humidity of chickens, duck and quail eggs for successful incubation. 3.0
- c) State the essential requirements of artificial incubation for hatching chicken eggs. 1.5
2. a) How will you select and store the chickens' eggs for hatching purpose? 2.0
- b) Briefly discuss the factors that affect fertility of eggs. 4.0
3. Write short notes on any three of the following: 3×2=6
 - a) Rice husk incubation method;
 - b) Fumigation;
 - c) Bio-security of hatching eggs;
 - d) Sexing of DOC; and
 - e) False prolapse.
4. a) What are the factors that affect day-old chick production? 2.5
- b) Mention the nutrient specification for optimizing shell quality of egg. 1.5
- c) State the qualitative feed restricted system for breeder stock management. 2.0

Section-B

5. a) Define blastoderm, internal layer, reciprocal recurrent selection and heterosis. 2.0
- b) Mention the contribution and present condition of commercial poultry industry in Bangladesh. 2.0
- c) What are the traits most often considered in selecting pure line breeder? 1.0
6. a) Mention some pure breeds or varieties that are used to develop modern strains. 1.0
- b) Write down the specific management practices for breeder stock. 2.5
- c) What are the key performance indicators of breeder and layer breeder stock? Explain them. 2.5
7. a) Write down the names of the younglings of goose, swan, turkey, pigeon, peafowl, quail and local duck. 3.5
- b) What is broodiness? Calculate the number of eggs that can be hatched out by natural incubation. 2.5
8. Write short notes any three of the following: 3×2=6
 - a) Great grandparent stock;
 - b) Nest and litter mistrials;
 - c) Scratch feeding system;
 - d) Environmental controlled house; and
 - e) Cannibalism.

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017
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 (5) questions** from each section.
 Use separate answer scripts for each section.)

Section-A

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|----|----|---|-----|
| 1. | a) | Define choke. What are the causes and significance of esophageal obstructions? | 3.0 |
| | b) | Briefly describe causes and pathogenesis of ruminal acidosis. | 4.0 |
| 2. | a) | Define anemia. Classify it along with the etiology of each kind. | 5.0 |
| | b) | Write down the causes of splenomegali. | 2.0 |
| 3. | a) | Write down the causes of toxic myopathy. | 4.0 |
| | b) | Describe the pathology and pathogenesis of a nutritional deficiency disease of skeletal muscle. | 3.0 |
| 4. | a) | Define pneumonia and pleuropneunomia . | 2.0 |
| | b) | Describe briefly the stages of pneunomia. | 3.0 |
| | c) | Write short notes on Bronchietasis and atlectasis. | 2.0 |
| 5. | a) | Define glomerulonephrilis. Write down the pathogenesis and pathology of nephrosclerosis. | 4.0 |
| | b) | Briefly describe the causes and pathogenesis of urolithasis in ram. | 3.0 |
| 6. | a) | What do you mean by infertility and sterility? | 2.0 |
| | b) | Define phimosis, paraphimosis and balanoposthitis. | 3.0 |
| | c) | Write short notes on free martin. | 2.0 |

Section-B

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|-----|----|---|-----|
| 7. | a) | Define gastritis. Describe different types of gastritis. | 3.0 |
| | b) | What is traumatic reticulo-pericarditis? Write down pathogenesis and pathology of it. | 4.0 |
| 8. | a) | What is the consequence of persistent right aortic arch? | 3.0 |
| | b) | Define cardiac failure, acute and chronic cardiac failure. | 2.0 |
| | c) | What is nutmeg liver? | 2.0 |
| 9. | a) | Define abortion and still birth. | 2.0 |
| | b) | Write down the pathogenesis of pyometra in cows. | 3.0 |
| | c) | Write Short notes on orchitis and metrites. | 2.0 |
| 10. | a) | Define different types of fracture. | 3.0 |
| | b) | Write down the difference between renal rickets and bran disease. | 2.0 |
| | c) | Enlist some significant microscopic lesions of rickets. | 2.0 |
| 11. | a) | Write down the etiology of ulcer in GIT. | 2.0 |
| | b) | Define intussusceptions and volvulus. | 2.0 |
| | c) | Write down the causes of cirrhosis. | 3.0 |
| 12. | a) | What is horse shoe kidney? Briefly describe the pathogenesis of ascending pyelonephritis. | 4.0 |
| | b) | Define the gross cutaneous lesions: vesicles, papules, spongiosis. | 3.0 |

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017
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 three questions from each section of which question no 1 is compulsory. Use separate answer scripts for each section. Split answer is discouraged)

Section-A

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|----|--|-----|
| 1. | a) Write the objectives for Animal Breeding study. | 1.0 |
| | b) Narrate how Robert Bakewell derives the three basic principles of animal improvement from his experiment. | 3.0 |
| | c) Distinguish between qualitative and quantitative traits. | 1.0 |
| 2. | a) Write down the meaning of population genetics. | 2.0 |
| | b) State Hardy-Weinberg law and its importance in population genetics. | 2.0 |
| | c) For a trait of choice, draw a normal distribution curve showing all its properties. | 2.0 |
| 3. | a) Distinguish between crossbreeding and inbreeding. | 1.0 |
| | b) What is heterosis? Mention the causes and gene action involve in heterosis. | 2.0 |
| | c) Show heterosis value in F_1 generation is double than F_2 generation in the case of dominant gene action. | 3.0 |
| 4. | a) List the selection schemes those are useful in dairy development. Write how will you select a elite bull in consideration of progeny testing breeding scheme. | 3.0 |
| | b) Describe how you will develop a layer strain. | 3.0 |

Section-B

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|----|---|-----|
| 5. | a) What is variance? Partition total phenotypic variance in to its components. | 2.0 |
| | b) State the uses of correlations for animal improvement. | 1.0 |
| | c) Estimate breeding value of a trait in consideration of gene frequency information when the gene action is dominant. | 3.0 |
| 6. | a) What is heritability? State its importance in animal improvement. | 2.0 |
| | b) Write in detail for the estimation of heritability value of egg production in intra-class correlation with its limitation. | 4.0 |
| 7. | a) Define selection. Indicate selection methods with example. | 1.0 |
| | b) Distinguish between selection objective and selection criteria. | 1.0 |
| | c) Construct multi-trait selection index for selecting breeding bull in order to increase milk production. | 4.0 |
| 8. | a) Differentiate between grading up crossbreeding. What are the reasons of using crossbreeding? | 2.0 |
| | b) "Inbreeding increases homozygosity"- Prove it. | 2.0 |
| | c) What do you mean by community based livestock breeding system? Briefly describe such a scheme for the development of local breeds. | 2.0 |

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017
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 questions from each section where Question no. 1 (One) and 5 (Five) is compulsory. Use separate answer scripts for each section.)

Section-A

1. a) Briefly mention the injuries effects and control measures of flea infestation in animals. 4.0
b) Explain the transmission and feeding mechanism of lice and flea. 2.0
2. a) Distinguish between hard ticks and soft ticks. 3.0
b) Sketch the life cycle of a three host tick. 3.0
3. a) How will you differentiate Amblycera from Ischnocera? 3.0
b) How will you recognize the stable and tsetse fly on the basis of its morphology? 3.0
4. a) What do you understand by burrowing mite and non-burrowing mite? 3.0
b) How would you differentiate Sarcoptes, Psoroptes, Chorioptes and Demodex species? 3.0

Section-B

5. a) Define arthropod. Mention different parts of the arthropod reproductive system. 2.0
b) What is metamorphosis? Classify and describe with example. 3.0
6. a) List the diseases transmitted by mosquitoes to human and animals. How will you attempt to prevent them? 3.0
b) Mention the morphology, life cycle and pathogenic effects of stomoxys sp. 3.0
7. a) What is a long nose louse of cattle? Enlist the lice recorded in Bangladesh. 2.0
b) Mention the three principal epidemiologic factors of cutaneous myiasis describe with example. 4.0
8. Write short note on (any three): 3×2=6
 - (a) Tick paralysis
 - (b) Scaly leg mite in poultry
 - (c) Strike
 - (d) Siphonaptera

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2016
Course Title: Fundamentals 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 questions** from each section of which question No.1 is compulsory. Use separate answer script for each section.)

Section-A

1. a) Define clinical medicine and population medicine. 1.0
b) Classify diseases with examples according to clinical manifestations. 5.0
c) What are the various routes of drug administration? 2.0

2. a) List the components of physical examination. State the different consistencies of organs felt at palpation. 4.0
b) Differentiate between: 3×1=3.0
 i) Pleurisy and pneumonia
 ii) Fat and obesity
 iii) Mania and frenzy
c) Name the physical examination techniques that can be used to diagnose following conditions: 0.4×5=2.0
 i) A cow with hardware disease
 ii) A lamb with ascites
 iii) A horse with cardiac insufficiency
 iv) A cow with udder edema
 v) A bull with snoring disease

3. a) What is prognosis? Describe its importance in treatment. 2.0
b) What is pulse? Briefly discuss the quality of pulse. 5.0
c) How do murmurs develop? Show in a diagram. 2.0

Section-B

4. a) Categories shock with brief explanation of those. 4.0
b) What is paracentesis? In how many ways you can do paracentesis? 3.0
c) What is advice and when it should be provided? 2.0

5. a) What are the techniques of inspection and auscultation? Describe palpation and percussion findings. 4.0
b) Define and classify dehydration. 3.0
c) Briefly discuss the types of partial control of animals. 2.0

6. Write short notes on **any three** of the followings: 3×3=9
 i) Role of corticosteroid in shock treatment
 ii) Body Condition Scoring (BCS)
 iii) Clinical propaedeutics
 iv) Diagnosis

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017
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 questions** from each section where **Question no. 5 (Five)** is compulsory. Use separate answer scripts for each section.)

Section-A

1. a) State the taxonomy of bacteria –*Streptococcus lactis*. 2.5
b) State the common bacteria present in milk illustrating those responsible for milk-borne diseases. 2.5
c) What are the bacteria responsible for gas production in milk? 1.0
2. a) State the concept of associative actions of bacteria in milk and milk products. 2.0
b) Describe the relations with at least two examples in each case. 4.0
3. a) State the common factors involved in growth of bacteria. 2.0
b) State the principles of destruction of microbes. How will you destroy by physical agents? 4.0
4. Write short notes any 3 (three) of the followings: 3×2=6
 - (a) Thermal death point;
 - (b) Starter culture;
 - (c) Mesophilic bacteria;
 - (d) *Lactobacillus acidophilus*; and
 - (e) HACCP

Section-B

5. a) List the families of microorganisms which have dairy importance. 2.0
b) Describe briefly the role of Dairy Microbiology in the control of milk spoilage. 2.0
c) State the organisms responsible for flavor production. 1.0
6. a) State the importance of the family *Enterobacteriaceae*. 2.0
b) State the significance of Coliform bacteria in pasteurized milk. 2.0
c) Enumerate the common precautions to reduce Coliform counts in raw milk 2.0
7. a) Classify organisms on the basis of oxygen requirement with examples. 2.0
b) Differentiate the homofermentative and heterofermentative lactic acid bacteria. 2.0
c) State the groups of *Streptococcus* with examples. 2.0
8. Write short notes on any three of the followings: 3×2=6
 - (a) Coliform standards;
 - (b) Cleaning and sanitation;
 - (c) Vat pasteurization;
 - (d) Actions of microbes in milk and milk products;
 - (e) Probiotic;

Chittagong Veterinary and Animal Sciences University
DVM 3rd Year 1st Semester Final Examination-2017

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 scripts for each section. Split answer is discouraged)

Section-A

1. a) What is virus? Are viruses living? Justify statement. 2
b) Illustrate the scopes of virology. 2
c) How are viruses classified lately? 3
2. a) Briefly describe the steps of virus replication. 5
b) Name six (6) viruses causing epithelial tissue infection in animals and birds with disease name. 2
3. a) How can you precipitate virus? 2
b) Mention the biological properties of interferon. 3
c) How viruses are originated? 2
4. a) Define capsid, virion, tegument and envelop. 2
b) Name 6 lymph tropic viruses of animals and birds. 2
c) Describe the cell free and cell to cell mode of virus spread between host cells. 3
5. a) Describe reverse transcription. Mention 3 viruses that possess this property. 2+1=3
b) What do you mean by + sense and - sense RNA virus. 2
c) Differentiate between Marek's disease virus and lymphoid leukemia virus. 2
6. a) Illustrate contribution of six (6) scientists in the field of virology. 3
b) Explain virus spread within host. 4

Section-B

7. a) Articulate mechanism of interferon against virus infection. 4
b) Explain biological properties of interferon. 3
8. a) Review the list of viral disease of sheep and goat with mentioning their family, nucleic acid type, strandness, symmetry, symmetry and presence of absence of envelop. 7
9. a) Avian influenza virus undergoes lots of mutation. Underpin the causes of mutation. 2
b) Explain the role of 6, 7 and 8 segment of AIV. 3
c) Make contrast Avian influenza virus from Newcastle disease virus. 2
10. a) Write the physico-chemical properties of Infectious bursal disease, foot and mouth disease virus, Newcastle disease virus and list the tissue samples will be collected from above mentioned diseases for diagnosis in the laboratory. 7
11. a) What are the changes will be found in avian embryo after following virus inoculation: fowl pox virus, infectious bursal disease virus, infectious bronchitis virus, avian encephalomyelitis virus and duck plague virus. 7
12. a) List egg borne disease virus, tumor forming virus, immuno-suppression disease virus, secer borne disease virus. 7

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 lymphnode
- 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

- | | | |
|----|--|--------|
| 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 | |