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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2015
Course Title: Fundamental of Clinical Medicine
Course Code: FCM- 401 (T)
Full Marks: 55; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any three questions from each section where question number one (1) is compulsory. Use separate answer scripts for each section)

Section-A

1. a) Define Medicine and Veterinary Medicine. Mention the scopes of Veterinary Medicine in a society. 4
b) Write down the objectives and procedures of following tests: 2x3=6
 - i) Skin fold test
 - ii) Endurance test
 - iii) Cough test

2. a) List the components of physical examination. Explain the different types of sound produced at percussion. 6
b) Define diagnosis. Differentiate among tentative, symptomatic and confirmatory diagnosis of a disease/disease condition. 3

3. a) What is bodily condition? Briefly describe the bodily condition of an animal according to pathophysical and nutritional standpoint. 6
b) How will you examine the visible mucous membranes in different animal species? 3

4. a) Classify the causes of diseases. 3
b) How will you diagnose the following conditions using physical examination techniques: 2x3=6
 - i) Fibrous adhesion in thoracic cavity
 - ii) Black Quarter
 - iii) Ascites

Section-B

5. a) Why do we restrain the animal? What are the various methods of restraint used for animal? 3
b) In how many ways we can do palpation and auscultation? Describe palpation and percussion findings in animal. 6

6. a) Define paracentesis. Describe various types of paracentesis techniques used in animal. 4
b) Write in details the clinical and paraclinical examinations of respiratory system. 5

7. a) What will you observe during physical examination of urine? Give the interpretation of urine color in different clinical conditions. 5
b) Mention the clinical manifestations of uremia in dogs and cats. How will you treat uremia in dog? 4

8. Write short notes (any three): 3x3=9
 - i) Clinical propaedeutics
 - ii) Adventitious sounds of lungs and heart
 - iii) Body condition scoring
 - iv) Processing of virological samples

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2015
Course Title: Small Ruminant Medicine
Course Code: SRM- 401 (T)
Full Marks: 35; Time: 2 Hours

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

Section-A

1. a) "California Mastitis Test (CMT) for cow is not a standard test for mastitis diagnosis of doe"- to what extent you agree. Highlights the different forms of clinical mastitis. 3
b) Write down the necessary steps for controlling the FMD in goats from Bangladesh with mentioning the challenges and problems. 2
2. a) Why ruminants are so called "Dead End Host" for rabies? Write down the etiology and epidemiology of rabies. 3
b) Suggest the necessary activities which are friendly to nature to minimize the frequency of dog bite in small ruminants in a locality. 3
3. During an outbreak of anthrax in the northern parts of the country, two individual veterinary service providers have taken separate steps in their working area for controlling the outbreak-
 - i) The first one has taken the decision for vaccinating the whole population of ruminants.
 - ii) The second one has given emphasis on inclusive investigation and massive campaign rather than vaccination to ensure 100% hygienic disposal of carcasses (if any).a) Which one was more appropriate decision? Justify your opinion. 2
b) Write down the necessary steps for hygienic disposal of the carcass of a sheep suspected of anthrax. 2
c) List the infectious diseases which cause abortion in ewe and doe. 2
4. a) A 12 months old Black Bengal goat having 12kg body weight that suffers from fever (106⁰F) with frothy salivation and diarrhea. What is your tentative diagnosis? Write down the prescription for it. 3
b) Quack practitioners use oxytetracycline routinely for the treatment of parturient paresis of ewe and doe. Write down the consequences of the treatment given by quack. 3

Section-B

5. a) Enlist the important soil borne diseases of small ruminants with related causal agents. 3
b) A two-months-old kid is suffering from stiffness of limbs after seven days of castration. Clinical examination found locked Jaw and prolapsed of third eyelid. What is your presumptive diagnosis? Write down the line of treatment for this kid that could be effective to resolve the condition. 3
6. a) Write down the common preventive and control measures of coenurosis and hydatidosis in goat. 3
b) Write down the clinical findings, principles of diagnosis and treatment of piroplasmosis in small ruminants. 3
7. a) A three-years-old cross bred doe is suffering from diarrhea for the last 15 days. On owner response he has never given any anthelmintics to his animal, and even not aware about it. Clinical examination revealed rectal temperature of 101⁰F, sub-mandibular edema, icteric mucous membrane and weakness. Write down a prescription for this doe with proper advice for the owner following a presumptive diagnosis. 3
b) A goat fed on boiled rice hugely. Write down the consequences of this and mention the line of treatment in case of bad consequences. 3
8. Write short notes on the followings (Any two): 3×2=6
 - a) Pneumonia in sheep
 - b) Parakeratosis in goat
 - c) Pink eye in goat

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2015

Course Title: Livestock Economics

Course Code: LEC- 401 (T)

Full Marks: 55; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any three questions from each section where question number one is compulsory. Use separate answer scripts for each section)

Section-A

1. a) Distinguish between micro and macro economics? 3
b) Why is the study of livestock economics important for a student of Veterinary Science. 4
c) Why do the demand curve slopes downward. 3
2. a) What is the law of demand? 2
b) How would you determine price of commodity with the help of demand and supply curves? 7
3. a) What are the divisions of labours? 1
b) Briefly discuss the factors influencing efficiency of labour. 3
c) What are the advantages and disadvantages of different divisions of labours? 5
4. a) Define TP, MP and AP. 3
b) At which stage of production a rational producer seeks? 4
c) Define the term MRTS. 2

Section-B

5. a) What is Banking? 2
b) Discuss the functions of Central Bank in Bangladesh. 4
c) Explain the roles of money in a economy of Bangladesh. 3
6. a) Mention the relationship between Mc and Ac curves in a diagram 3
b) Explain the equilibrium of a firm with the help of total revenue and total cost curve. 4
c) Explain the term "Production". 2
7. a) What is national income. 2
b) Distinguish between GDP and GNP. 3
c) Discuss the production methods of measuring national income in a country with their limitations. 4
8. Write short notes on (Any three): 3×3=9
 - a) Variable cost, fixed cost and total cost curve
 - b) Break-even analysis
 - c) Pay-Back period
 - d) Internal Rate of Return (IRR)
 - e) Functions of central bank

Chittagong Veterinary and Animal Sciences University
VM 4th Year 1st Semester Final Examination-2015
Course Title: Veterinary Epidemiology
Course Code: (EP- 40) (T)
Full Marks: 55; Time: 3 Hours

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

Section-A

1. a) Write literal meaning of "Epidemiology". State different distribution patterns of disease in epidemiology with appropriate examples. 3
 b) Explain herd immunity and herd immunity threshold. 3
 c) Distinguish disease epidemic from other disease patterns. 4

2. a) Briefly describe epidemiological tools (measures of disease frequency) to determine disease status in a population. 4
 b) Explain epidemiological triad. 3
 c) Differentiate between observational and non-observational studies. 2

3. a) Write the advantages of incidence rate over incidence risk and write their applications with examples. 4
 b) Define confounder and interaction with examples. 3
 c) Define mortality and case fatality rate. 2

4. a) A researcher follows 200 pet dogs that are exercised regularly and 300 pet dogs that are not exercised regularly. After 3 years of follow-up, 20 of the dogs in the exercised group are diagnosed with osteoporosis while 30 dogs in the non-exercised group are diagnosed with osteoporosis. 6
 i) Draw a 2x2 contingency table showing the disease (outcome) on top and the exposure on left side.
 ii) Calculate the relative risk (RR) of developing osteoporosis between the two groups.
 b) Describe attack rate and secondary attack rate. 3

Section-B

5. a) Define sample and sampling. 2
 b) Describe the steps of simple random sampling. 5
 c) Differentiate between strata and cluster. 3

6. a) Define basic case reproduction number (R_0) and net case reproduction number (R). In a situation where the population and disease are stable and 95% of the population is immune and 5% susceptible, calculate the basic case reproduction number. 4
 b) Define vaccine efficacy and calculate the vaccine efficacy from the following data. 5

	Cases	Animal years (Animal time at risk)	Rate per a year
Placebo	20	903	10
Vaccine	17	347	2

7. a) What kind of disease surveillance in livestock. Illustrating in Bangladesh. Differentiate different surveillance systems from each other. 4
 b) Write down the importance of disease screening and monitoring. 3
 c) Explain different epi criteria of a diagnostic test that could be used for disease monitoring and surveillance. 2

8. Write short notes (Any three) 3x3=9
 a) Applications of epidemiology in veterinary science
 b) Necessary and sufficient causes
 c) Molecular and spatial epidemiology
 d) Qualitative risk analysis

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2015
Course Title: Small Animal and Avian Medicine
Course Code: SAM- 401 (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)

Section-A

1. a) Name eight sub-clinical diseases which cause drop in egg production in a small scale poultry farm, Sitakundo, Chittagong. 2
- b) Mention the name of important poultry diseases that being transmitted both horizontally and vertically. 2
- c) Write down at least three major components of Bio-security at Zonal Poultry Farm, Pahartali, Chittagong. 3
2. a) Write briefly the prevention and control strategies of *E. coli* infection in chicken. 3
- b) Write in short the management procedures of Pullorum disease and Fowl typhoid of chicken. 3
- c) Write down the diagnosis and treatment of infectious bursal disease. 1
3. a) List four important poultry diseases that cause acute septicemia. 2
- b) Describe the etiology, pathognomonic clinical signs and post-mortem lesions of acute septicemia with treatment, prevention and control of ulcerative enteritis in a Quail farm of Chittagong city. 5
4. a) Write prevention and control measures of Fowl Cholera. 5
- b) Write down the synonyms, clinical signs and post-mortem lesions of Goose parvoviral infection. 2
5. a) Write down the clinical signs, post-mortem lesions, diagnosis and treatment of caecal coccidiosis in a Broiler Farm, Sitakundo, Chittagong. 5
- b) Give the line of treatment of ascariasis in a layer farm. 2
6. a) How do you diagnose Newcastle disease in a poultry farm? 1
- b) Write down the presumptive diagnosis and prescription of the following conditions: 2×3=6
 - i) A layer flock is suffering from respiratory problem and facial edema and these conditions are spreading rapidly in the flock.
 - ii) A flock of 100 young birds of 3 weeks age, suffering from whitish diarrhoea and the vent and surrounding features soaked with loose feces.
 - iii) Ducklings of 4 weeks age having greenish diarrhoea, ocular and nasal discharge with ataxia. On post-mortem, fibrinous exudates are found on serosal surfaces, pericardial cavity and surface of the liver.

Section-B

7. a) How will you diagnose the infectious diseases of dogs and cats using the "Five step methods"? 4
- b) Make a vaccination schedule for a four-month-old Samoyed dog as per OIE guidelines. 3
8. a) Differentiate beta Marek's disease and lymphoid leukaemia. 3
- b) Define Halitosis. Write down the etiology and treatment of halitosis in Montu (dog), SAQTVH, CVASU. 4
9. a) Write the causes, symptoms, important clinical signs, pathognomonic post-mortem lesions and treatment of the following diseases in swine: 3.5×2=7
 - i) Hog cholera
 - ii) Swine flu
10. a) Write down the toxic dose, effects and treatment of paracetamol poisoning in a Tom cat which was brought to the Small Animal Unit of SAQTVH, CVASU. 3
- b) How will you differentiate Canine parvoviral infection from Canine coccidiosis in a puppy? 4
11. a) How will you restrain a dog for clinical examination and medication? 2
- b) Describe the etiology, epidemiology, clinical signs and treatment of Canine Leptospirosis. 5
12. a) Write down the etiology, transmission, clinical signs and treatment of Feline Viral Rhinotracheitis in kitten. 4
- b) Write down the pathognomonic clinical signs and post-mortem lesions with the treatment of Infectious Canine Hepatitis in a Doberman breed. 3

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2015
Course Title: Large Animal Medicine-I
Course Code: LAM- 401 (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. Use separate answer scripts for each section)

Section-A

1. a) Write down the epidemiology, clinical signs and line of treatment of Foot and Mouth Disease (FMD) in cow. 7
 b) What do you mean by "Tiger Heart Disease"? 2
 c) Enlist the complications of FMD. How will you prevent this disease by vaccination? 2
2. a) Write down the epidemiological features of Black Quarter (BQ) in cattle. How will you prescribe for a 200kg young bull suffering from acute BQ? 6
 b) What are the etiologies and clinical signs of Pink eye in cattle? 3
 c) Mention pack size and dosing schedule of the following vaccines for large ruminants: 3
 - i) Hemorrhagic Septicemia vaccine
 - ii) Anthrax vaccine
 - iii) BQ vaccine
3. a) Enlist the zoonotic diseases caused by bacteria. Why pulmonary form of anthrax is not common for human in Bangladesh? 4
 b) Describe the epidemiology and control measures of Anthrax in a cattle farm. 6
 c) How will you diagnose Anthrax in field condition? 2
4. Write down the prescription of the following diseases/disease conditions (any three). 3×4=12
 - i) A heifer of 150kg body weight suffering from foot-rot
 - ii) A buffalo of 400kg body weight suffering from TB
 - iii) A calf of 30kg body weight affected with navel ill and arthritis
 - iv) A bull of 150kg body weight seriously affected with bee sting injury

Section-B

5. a) What type of poisoning may occur in cows from the ingestion of green leaf of Cauliflowers? Write down the clinical signs and treatment of this poisoning. 5
 b) Discuss about snake bite in animals. 3
 c) What are the sources and clinical signs of urea poisoning in cattle? 3
6. a) Describe epidemiology, clinical signs and control measures of rabies in animals. 6
 b) Write down the procedure to prepare autogenous vaccine against papillomatosis in cattle. 3
 c) Write down the etiology and line of treatment of strangles in horse. 3
7. a) How will you diagnose subclinical mastitis in cows? Write down clinical signs and line of treatment of per-acute mastitis in buffaloes. 6
 b) Mention three different antibiotics with their doses that can be administered both IM and IV routes. 3
 c) Describe treatment and control of tetanus in horses. 3
8. a) Write down the clinical signs, diagnosis and line of treatment of Bovine Ephemeral Fever. 6
 b) Write down the clinical signs, diagnosis and treatment of Listeriosis in cattle. 6

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2015

Course Title: Preventive Medicine

Course Code: PRM- 401 (T)

Full Marks: 70; Time: 3 Hours

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

Section-A

1. Define the following terminology
a) Transboundary and notifiable diseases 2
b) Emerging and re-emerging diseases 2
c) Endemic and epidemic diseases 2
d) Isolation and quarantine 2
e) Prevalence and incidence 2
f) Morbidity and mortality 1
2. a) What is surveillance? Classify it. 3
b) What are the objectives for surveillance? How risk analysis is made for surveillance? 3
c) Enlist the general recommendations for surveillance. 6
3. a) What do you understand the association of host, agent and environment for production of diseases? 2
b) Classify disease transmission with example. 3
c) Why indirect method of disease transmission is more complex? 2
d) Describe control programs of poultry diseases in Bangladesh. 5
4. a) Write down the major components of disease prevention. Mention the elements of biosecurity. 2
b) Briefly describe the terminal biosecurity program of a broiler farm. 6
c) Discuss prevention and control measures of insect borne disease of animals in Bangladesh. 4

Section-B

5. a) Define zoonoses. Mention five common zoonotic diseases prevail in Bangladesh. 3
b) What do you understand the emerging factors that expanded the zoonotic diseases in localities. 2
c) Briefly note down the common symptoms of rabies, anthrax and undulant fever in man and animals. 6
6. a) Classify vaccine and vaccination. 2
b) Mention the various routes of administration of poultry vaccine along with dosage and intervals. 4
c) We know vaccination program has three factors, management, animal and biologic. Explain the interaction among these factors in successful vaccination. Enlist the cause of vaccination failure. 6
7. a) Veterinary Medicine is an economic medicine—explain? 2
b) Mention 10 economic important diseases in livestock. 3
c) What is reproductive herd health? Write down the principal objectives of RHH? 2
d) Mention 10 reproductive goals set for maximum reproduction in dairy farm? 5
8. Write short notes on any two; 6×2=12
a) National emergency preparedness.
b) Control of environmental mastitis.
c) Principles of control of disease in plan and policy.

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination, 2015
Course Title: Anesthesiology and Operative Surgery (Theory)
Course Code: AOS-401(T)
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 scripts for each section)

Section-A

1. a. Define anesthetic, hypnotic, tranquillizer and narcotic. 2
b. What do you mean by sedation? Mention four commonly used sedatives with their doses in small animal practice. 4
c. Briefly describe the stages of surgical anesthesia. 5

2. Describe the anesthetic techniques for the following surgical procedures: 4x3=12
a) Dehorning in a bull b) Umbilical hernia in a calf
c) Castration in a kid d) Atresia ani in a newborn calf

3. a. Mention the name of 10 signs and 10 reflexes that are commonly monitored during general anaesthesia in animal. 4
b. Mention the doses of xylazine, ketamine and thiopentone sodium in dog. 3
c. What are the advantages of using muscle relaxants? Mention three commonly used muscle relaxants with their doses in small animals. 5

4. a. Why fluid therapy is important in veterinary surgery? Classify fluids with examples that are commonly used in veterinary surgery. 4
b. How will you calculate the amount of fluid for an adult 20 kg dog with 4% dehydration that has come in our SAQTVH? On the history, it has been estimated that the dog vomited 100ml of fluid overnight. 5
c. How will you perform general anaesthesia for spaying in a bitch? 3

Section-B

5. a. What are the purposes of laparotomy? Describe "Stay Suture Rumenotomy" in an adult cattle suffering from ruminal acidosis. 5
b. How will you do castration in an adult German Shepherd dog? 4
c. Define strabismus, distichiasis, keratitis and blepharitis. 2

6. Write down the clinical signs and treatments of the following surgical affections: 4x3=12
a. Tail gangrene in a cow
b. Gid in a doe
c. Otorrhea in a bitch
d. Dental tartar in a cat

7. a. What are the common surgical affections of the teats and udder? Mention at least four general considerations for teat surgery in a cow. 4
b. How do you perform operation teat fistula of a Jersey cow in the field condition. 6
c. What are the common modalities used in physiotherapy for animal? 2

8. Write short notes on **any four** of the followings: 3x4=12
a) Disbudding in cattle
b) Aural haematoma in a dog
c) Rib resection in a cow
d) Pyorrhoea in a bitch
e) Urolithiasis in goats

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2015
Course Title: General Surgery, Lameness, Soundness and Radiology
Course Code: GSR- 401 (T)
Full Marks: 70; Time: 3 Hours

(Answer 3 (Three) questions from each section of which question no 1 & 5 are compulsory. Use separate answer scripts for each section)

Section-A

1. a) Classify wounds and discuss the fact of nature of open wound. 3
b) What are the general treatment procedures of open wound? 4
c) What are the clinical uses of cold and warm application and anodyne preparation in Veterinary Surgery? 4
2. a) How will you prepare yourself for performing laparotomy in a bitch? 5
b) What are the components of a general surgical pack? 2
c) How will you sterilize instruments for surgery? 5
3. a) Describe the roles of inflammatory stage of wound healing in a goat. 5
b) How will you treat maggot wound in a goat? 3
c) What do you mean by stitch abscess? What are the consequences or termination of an abscess if it does not treat? 4
4. Write notes (Any four) 4×3=12
 - a) Contusion
 - b) Ulcer
 - c) Tumor
 - d) Shock
 - e) Abscess
 - f) Avulsion

Section-B

5. a) What are the treatment options for benign and malignant tumors and how will you confirm a swelling under the skin that is tumor? 4
b) How will you correct contracted tendon in a calf? 3
c) What are the principles for treatment of fracture? Briefly describe the anatomical reduction technique in closed fracture and also mention the internal fixation techniques for fracture management in a dog. 4
6. a) How will you differentiate infectious arthritis from bursitis or hygroma? Mention the technique for joint drainage in a calf suffering from infectious arthritis. 4
b) How will you correct cranio-dorsal hip dislocation in a goat by closed reduction technique and what are the other options can be applied for that? 4
c) How will you permanently treat upward fixation of patella in a cow? 4
7. a) What are the common imaging techniques used in Veterinary Surgery. Describe briefly the mechanism of X-ray production. 6
b) Write down the soundness certificate of a horse. 6
8. Write notes (Any four) 3×4=12
 - a) Foot-rot
 - b) Paralysis
 - c) Canker
 - d) Contrast Media
 - e) Navicular disease
 - f) Green stick fracture

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2015

Course Title: Animal Breeding

Course Code: ABR- 401 (T)

Full Marks: 55; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer 3(Three) questions from each section where question number **one is compulsory**. Use separate answer scripts for each section)

Section-A

1. a) Who was Robert Bakewell? Write down his contribution to animal improvement. 4
b) What is trait? Distinguish between quantitative and qualitative traits. 3
c) Write the functions of breeders association in order to develop the breeds of cattle. 3
2. a) Write down the meaning of population genetics. State Hardy-Weinberg Law and its importance in population genetics. 3
b) Briefly describe how selection and migration changes gene frequency in an animal population. 3
c) What is effective population size? Indicate its importance for a strain development. 3
3. a) What do you mean by term "Heterosis"? Illustrate different kinds of heterosis with examples. 4
b) Proof that heterosis value is higher in F₁ generation than subsequent generations in case of dominant gene action. 5
4. a) What is response to selection? Write down the factors those enhance the response to selection for a trait. 3
b) Estimate the genetic gains for milk yield using cow to bull and bull to cow pathways considering the genetic standard deviation for milk yield is US\$ 10. 4
c) Define Genetic Lag. How will you calculate the genetic lag from indigenous cattle improvement programme of Bangladesh? 2

Section-B

5. a) What is Variance? Partition the phenotypic variance into its components. 3
b) Describe additive genetic variance for estimating the breeding values for a particular trait. 3
c) Environment is an important factor for the expression of a genotype –Explain it. 3
6. a) Define heritability. Write in detail about a method for the estimation of heritability of milk yield with its limitation. 5
b) Write down the importance of heritability in Animal Breeding. 2
c) List the values of heritability and repeatability of different criteria under the objective of the increase of milk production. 2
7. a) What is selection? Explain different kinds of selection with examples. 3
b) What do you meant by "Aids to selection"? Discuss the most important aid used to make dairy bull selection. 3
c) Give a brief note on the methods of selection for more than one trait. 3
8. a) Distinguish between inbreeding and crossbreeding. 2
b) What is inbreeding co-efficient? Write the steps for computation of inbreeding co-efficient using Sewell Wright formula. 3
c) List the methods of crossbreeding. For the dairy development of Bangladesh which method will you choose and why? Discuss about the method with its limitations. 4