Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
Course Title: Small Ruminant Medicine (Theory)
Course Code: SRM – 401 (T)
Full Marks: 35. Time: 2 (Two) 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.

Section-A

1. a) Write down the etiology, epidemiology, clinical findings, line of treatment and control measures of Contagious ecthyma in goats. 3
   b) How will you manage a case of Foot – and – mouth disease in goat? 2

2. a) Define mastitis with possible etiological agents. Write down the types of mastitis you handled during your regular clinical hours at TVH of CVASU. 3
   b) What is mange? Write down the etiology and clinical findings of mange in sheep and goats. 3

3. a) What is Colibacillosis? Write down its etiology, clinical findings and line of treatment of colibacillosis in small ruminants. 3
   b) Write down the name of nutritional diseases in sheep and goats. Describe any one of them. 3

4. How will you diagnose the following diseases: 1.5 X 4= 6
   a) Sheep pox
   b) Anthrax in small ruminants
   c) Pregnancy toxemia in ewe
   d) Toxoplasmosis in small ruminants

Section-B

5. a) Mention a name of disease that is caused by Rickettsiales order with the complete etiology. Write down the epidemiology and line of treatment of that disease. 3
   b) An 18 months old native sheep having 20 kg body weight that suffers from fever (105^0F) with purulent nasal discharge and diarrhea. What is your tentative diagnosis? Write down the prescription for it. 3

6. a) A buck of 30 kg body weight with 101^0F body temperature, poor body condition and anorexia. Owner complains that "The animal is voiding cooked rice – like materials in the feces for a week." What is your presumptive diagnosis? Write down a prescription for this buck. 3
   b) Explain the relationship between fascioliasis and black disease of small ruminants. How do you prevent them? 3

7. a) Is it possible for you to differentiate rabies from other diseases that may confuse with it during diagnosis? 3
   b) How can you differentiate babesiosis from other diseases causing related symptoms? Highlights the points in a tabulated form. 3

8. a) What do you mean by Pink eye disease? Write down the etiology and line of treatment of infectious keratoconjunctivitis in goats. 3
   b) Give the prescription of the following diseases: 1.5 X 2= 3
   (i) Foot rot in sheep
   (ii) Hemonchosis in goats

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
Course Title: Preventive Medicine (Theory)
Course Code: PRM -401 (T)
Full Marks: 70, Time: 3 Hours

Figures in the right margin indicate full marks. Answer any **three (3)** questions from each section of which questions 1 and 5 are compulsory. Use separate answer scripts for each section.

Section-A

1. a. What is immunization? How do you differentiate killed vaccine from live vaccine (by immunization)? 2
   b. Write down the name, route and dose of vaccines produced by the DLS in Bangladesh for livestock and poultry. 4
   c. Mention the causes of vaccination failure in post-inoculation in animals and birds. 5

2. a. What are the components of chain model of disease causation? How can a chain model of a disease be utilized for preventing that specific disease? 5
   b. Draw the chain model for controlling Newcastle disease in Poultry and PPR in goat. Indicate the most efficient points of prevention in those two models. 5
   c. Surveillance is a basic tool for prevention the disease – explain. 2

3. a. What do you mean by transboundry and notifiable animal diseases? 3
   b. Enlist the transboundry animal diseases of category–A, endorsed by OIE that impose trade embargo on live animals and their products. 6
   c. What is quarantine? Who and how it applies for disease prevention in animals? 3

4. a. Mention the name of major tools applied for disease prevention in livestock. 2
   b. How do you differentiate the steps of biosecurity form sanitation–hygiene in disease control programme? 5
   c. Briefly describe the general principles of controlling avian influenza in Bangladesh. 5

Section-B

5. a. Why zoonoses are very important in Veterinary Medicine? Mention 10 common zoonotic diseases prevailing in Bangladesh. 5
   b. How do you control anthrax and rabies in animals of Bangladesh? 3
   c. Mention the name of five national and five international organizations that work on animal disease prevention. 3

6. a. Define screening of diseases, Mention the purposes of screening test. 4
   b. How do you differentiate screening test from diagnostic test? What are the properties of an ideal screening test? 4
   c. What do you understand the sensitivity and specificity of a test used in the laboratory? 4

7. a. How do you differentiate the word "Herd Health" from "Reproductive Health"? 2
   b. Briefly state the role of routine functions of Veterinarians that increase the production and reproduction of dairy animals. 5
   c. Mention 10 common reproductive goals that help get one calf per cow per year. 5

8. a. Differentiate emerging disease from re- emerging disease with examples. 2
   b. What do you mean by early warning of diseases? Who are the persons involved in early warning of an emerging disease? 5
   c. Write down the list of 10 vectors borne, five soil borne and 5 air borne diseases of animal in Bangladesh. 5

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
Course Title: Small Animal and Avian Medicine (Theory)
Course Code: SAM-401 (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

1. a. Write down the etiology, transmission, clinical signs, postmortem lesions, treatment and control of necrotic enteritis in chickens. 5
   b. What is "Bacillary White Diarrhea"? Write its pathognomonic clinical signs and post-mortem lesions. 2

2. a. State the etiology, mode of transmission, clinical manifestations and control of avian influenza in a commercial broiler farm. 5
   b. Is vaccine strategy effective against avian influenza in Bangladesh? Explain 2

3. a. Prepare a vaccination schedule for a commercial layer farm. 2
   b. Mention risk factors, mode of transmission, clinical features and line of treatment of avian mycoplasmosis. 5

4. a. Mention the name of diseases that produce "hepatomegaly" in chicken. How would you diagnose hepatomegaly on post-mortem examination? 5
   b. How will you prevent and control duck plague in Bangladesh? 2

5. a. How would you diagnose Newcastle disease? 3
   b. Enlist horizontally and vertically transmitted diseases in poultry. 2
   c. Name the immuno-suppresive diseases in poultry. 2

6. a. Write down the etiology, transmission, clinical signs, postmortem lesions, treatment and prevention of brooder pneumonia in 10 days old chicks. 5
   b. Mention the etiology, clinical signs and post-mortem lesions of blackhead disease in Turkey. 2

Section-B

7. a. What is hard pad diseases? Briefly describe its clinical signs, diagnosis, treatment and prevention. 5
   b. Define cutaneous and visceral larval migrans in cat. 2

8. a. What is kennel cough in dog? Name the etiology, clinical signs, post-mortem lesions and line of treatment. 4
   b. What is panleukopenia in cat? Write down the etiology, pathognomonic clinical signs and post-mortem lesions of it. 3

9. a. Briefly state the etiology, mode of transmission, pathogenesis, clinical findings, treatment and prevention of "parvovirus infection" in puppies. 7

10. a. How do you differentiate scabies from mange? 1
    b. Provide the line of treatment of the following events: 3x2=6
    (i) Hook worm infestation in dog
    (ii) Ascariasis in swine
    (iii) Toxoplasmosis in queen cat

11. a. What is the most common skin disease in rabbit? Provide the line of treatment of it. 3
    b. State the etiology, clinical signs, diagnosis, treatment and control of glasser's disease in Pig. 4

12. Write short notes on: 3.5x2=7
    (i) Leptospirosis in dog
    (ii) Canine Rabies

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination, 2014
Course Title: Livestock Economics (Theory)
Course Code: LEC-401
Full Marks: 55, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **3 (three)** questions from each section of which **question no. 8 is compulsory**. Use separate answer script for each section.)

Section-A

1. a) Differentiate economics, livestock economics, and animal health economics. 4
   b) Give a brief account of economic losses caused by animal disease in context of Bangladesh. 5

2. a) Define utility and consumer's surplus. 2
   b) Distinguish between Marshallian utility analysis and indifference curve analysis. 2
   c) What does the law of diminishing marginal utility? Illustrate graphically the law of diminishing marginal utility with its limitations. 5

3. a) Define market. Classify market based on time period. 3
   b) State the comparison between perfect competitive and monopoly market. 3
   c) Why farm managers operate the farm business having losses at short run period under perfect competitive market? 3

4. a) What do you mean by project? 2
   b) Write the characteristics of a livestock development project. 3
   c) Discuss discount–based project appraisal technique. 4

Section-B

5. a) How do you define price elasticity of demand? Distinguish between elastic and inelastic demand. 3
   b) Quantity demanded of eggs falls from 100000 dozens to 80000 dozens due to rise in the egg price from Tk. 88 to Tk. 80. Calculate the price elasticity of demand and interpret result. 4
   c) Do you think the price elasticity for price is greater than the price elasticity for eggs? Why or why not? 2

6. a) Define indifference curve. 2
   b) Suppose a consumer's consumption basket contains only two livestock products chickens and beef. Now draw an indifference curve from a hypothetical indifference schedule for the consumer. 2
   c) Show with the help of diagram how a consumer reaches in equilibrium? 5

7. a) What do you mean by production and production function? 2
   b) Discuss in brief the three stages of production. 5
   c) Distinguish between MRS and MRTS 2

8. Write short notes on (any four of the followings): 2.5x4= 10
   i. Point elasticity of demand
   ii. Explicit and implicit cost
   iii. Efficiency of labour
   iv. Relationship between MC and AC
   v. Break-even- analysis

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
Course Title: Fundamental of Clinical Medicine (Theory)
Course Code: FCM-401 (T)
Full Marks: 55, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer three **(3)** questions from each section, where question number **1 is** compulsory. Use separate answer scripts for each section.)

Section-A

1. a. Define clinical Medicine. How would you differentiate clinical Medicine from population Medicine? Write down the scope of clinical Medicine. 6
   b. What do you mean by physical examination? Write down the principles of physical examination for the diagnosis of a patient. 4

2. a. What are the parenteral route of administration of drug? What do you mean by drug abuse and drug dependency? 5
   b. Briefly describe about one restraining method for Horse, Cat, and Deer. 4

3. a. How will you diagnose with various test of the following conditions: 3x3= 9
   (i) Acidosis in cow.
   (ii) Abomasal displacement of ruminant.
   (iii) Dehydration of dog.

4. a. Briefly describe the methods of diagnosis of foreign bodies in reticulum. 4
   b. Write down the procedures of collection, preservation and shipment of different biological samples from live animal to the laboratory. 5

Section-B

5. a. Define clinical propedutics. How will you differentiate pleurisy from preumonia through physical examination? 4
   b. What is ethology? Classify the demeanor. Briefly describe mania, syncope and aimless wandering of a cow. 5

6. a. Mention the normal temperature, pulse and respiration rate of goat, cow, cat, dog and chicken. 4
   b. How do you differentiate the following: (any two) 2.5x2= 5
   (i) Toxemia and septicemia.
   (ii) Fever and Hyperthermia.
   (iii) Epistaxis and hemoptysis.

7. a. Write down the objective and procedures of the following physical examination techniques with anatomical locations. 3x2= 6
   (i) Prescapular and prefemoral lymph nodes.
   (ii) Test of Hematomegaly and spleenomegaly.
   (iii) Rumen motilily test.
   b. Briefly describe the important modified techniques of physical examination for the detection of ascites in a goat. 3

8. Write short notes on any three of the following: 3x3 = 9
   (a) Paracentesis
   (b) Breathing inhibition test
   (c) Abnormal sounds of lungs
   (d) Reticular pain

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
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 (3)** questions from each section of which questions 1 and 5 are compulsory. Use separate answer scripts for each section.

Section-A

1. a. Define anesthesia, analgesia, narcosis and sedation. 2
   b. What are the basic components of general anesthesia? Why is general anesthesia essential for small animal surgery? 4
   c. Briefly describe different stages of general anesthesia. 5

2. a. Why premedication is important during anesthesia? What kinds of preanesthetics are commonly used during anesthesia? 4
   b. Mention at least five tranquilizers that are commonly used in Veterinary anesthesia. 5
   c. Mention at least three true muscle relaxants with their doses that are commonly used for animal anesthesia. 3

3. a. List the important general anesthesia used in small animals. 3
   b. Mention the doses of xylazine, ketamine and diazepam in dogs and cats. 4
   c. What are the advantages of premedication? Mention the names of 4 premedicants with their doses in dogs and cats. 5

4. a. What is the importance of fluid therapy in veterinary surgery? Mention the types of crystalloids that are used in SAQTVH during surgery. 5
   b. How will you calculate the amount of fluid required for an adult 25kg dog with 5% dehydration? On the history it was evaluated that the dog vomited 200 ml of fluid overnight. 5
   c. How quickly is fluid administered in animal body during fluid therapy? 2

Section-B

5. a. What are the aims of operative surgery? 2
   b. Mention the name and sites of incision for at least 5 abdominal surgeries in cattle. 5
   c. How will you treat a case of dog with aural hematoma in our veterinary hospital? 4

6. a. What are the indications for rumenotomy in cattle? 2
   b. Briefly describe the common techniques for rumenotomy in animal. 4
   c. How will you treat a cow suffering from frothy bloat due to the sudden ingestion of huge leguminous feed? 6

7. a. Mention the indication of castration in the bull and buck. 2
   b. Briefly describe the clinical signs and treatment of scrotal hernia in a dog. 5
   c. A two-month old male calf is brought to you with the complaint of non- painful reducible swelling of the umbilicas. What is your diagnosis and how will you treat the case? 5

8. Write short notes on any four of the followings: 4x3=12
   a. Correction of atresia ani in a calf
   b. Disbudding and dehorning in cattle
   c. Urolithiasis in buck
   d. Dermoid cyst in a new born calf
   e. Supernumerary teat in a cow

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
Course Title: Animal Breeding (Theory)
Course Code: ABR-401 (T)
Full Marks: 55, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer three **(3)** questions from each section, where question **no.1** is compulsory. Use separate answer scripts for each section.)

Section-A

1. a. What is Animal Breeding? Write down the importance of Animal Breeding study. 3.0
   b. Write the name of 3 (three) scientists with their contribution in Animal Breeding. 4.5
   c. "Variation is the raw material for a breeder"- Explain it. 2.5

2. a. Define breeding value. Distinguish between true and estimated breeding value. 3.0
   b. What is the relationship between breeding value and transmitting ability? 2.0
   c. Mention the different methods used to estimate breeding values. How will you calculate the breeding value from family performance record? 4.0

3. a. Distinguish between gene frequency and genotype frequency. 2.0
   b. State Hardy-Weinberg law. Briefly discuss the steps for proof the Hardy-Weinberg law. 5.0
   c. Write down the application of Hardy-Weinberg equilibrium. 2.0

4. a. What is heterosis? Write about different type of heterosis. 3.0
   b. Mention the application of heterosis in animal breeding. 2.0
   c. Explain with example how dominance gene action is responsible for the expression of heterosis. 4.0

Section-B

5. a. What do you mean by the term "population" and "idealized population". 3.0
   b. Write in detail how you will develop a broiler strain from the available breeds of chicken. 6.0

6. a. Define selection. Mention the scheme(s) those are used for dairy animal selection. 2.0
   b. Construct a selection index for selecting a dairy cow in considering the traits: milk yield and calving interval. 7.0

7. a. What is genetic gain? Write down the factors those control the genetic gain of a trait. 3.0
   b. Estimate genetic gain for milk yield by using cow to cow and bull to cow pathway. 6.0

8. Write short notes on any 3 (three) $3 \times 3 = 9$
   a) Genetic and phenotypic correlations
   b) Marker Assisted Selection (MAS)
   c) Genotype × Environment interaction
   d) Grading-up

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
Course Title: General Surgery, Lameness, Soundness and Radiology (Theory)
Course Code:GSR-401 (T)
Full Marks: 70, Time: 3 Hours

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

Section-A

1. a) What do you mean by surgery? Classify it on the basis of nature of surgery with example? 3
   b) What are the basic principles applied for modern surgery? 2
   c) Do you feel that inflammation is necessary for wound healing? Explain it? 2
   d) What are the possible causes of inflammation ? Briefly mention the line of treatment of an acute inflammation. 4

2. a) What are the factors responsible for different colored pus in abscess? 2
   b) What is consequence of incision of immature abscess? How will you differentiate abscess from both truma and hematoma? 5
   c) How will you treat an abscess in the neck of a cow? 5

3. a) How will you manage a third degree burn of a dog affecting 20% of the body surface affected by petrol bomb? 5
   b) How does stress affect wound healing? 2
   c) How will you manage avulsion of a horn of a cow? 5

4. Write short notes on any three of the followings: 3x4=12
   a) Sinus in a cow; b) Burns and scalds
   c) Diabetes wound healing; d) Gangrene in leg and F) Shock

Section-B

5. a) What do you mean by paralysis, paresis, specific paralysis and flaccid paralysis? 2
   b) What are the possible causes of paralysis? Mention the line of treatment of paralysis in a goat? 5
   c) What are the common types of hip dislocation in cattle and clinically how will you diagnose it? 4

6. a) Enumerate the types of factures with brief description. 3
   b) How will you diagnose fracture in a dog? 3
   c) What is the pathognomic sign of upward fixation of patella? How will you surgically correct such an affection in a cow? 6

7. a) Define Radiograph, grid, contrast media and radiopague. Write down the application of Radiology in Veterinary Science? 3
   b) What are the preparations of the patient for radiography? Mention the basic radiation safety rules for diagnostic radiology. 5
   c) Define soundness and its classification. 1
   d) What are the conditions considered for unsoundness in horse including vices during soundness examination? 3

8. Write short notes on any four of the followings: 3x4=12
   a) Foot rot in cattle; b) Navicular disease in horse;
   c) Hygroma: d) Hemostate techniques in Veterinary Science
   e) Suture and f) Pain Killer

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
Course Title: Veterinary Epidemiology (Theory)
Course Code: VEP – 401 (T)
Full Marks: 55. Time: 3 (Three) 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.

Section-A

1. a) Write down the scope and objectives of epidemiology. 3
   b) Write down the relationship among host, agent and environment. 4
   c) Differentiate between determinants and risk factors. 3

2. a) What are the tools of measures of disease frequency in population and enlist the pre-requisites to calculate the measures of disease frequency. 4
   b) Write down the advantages of rate over risk. 2
   c) Define proportionate prevalence. mortality rate and case fatality rate. 3

3. a) Sketch intervention study design and list the advantages and disadvantages of it. 4
   b) The effect of "time varying risk factor" cannot be evaluated in cross sectional study -Explain why? 2
   c) List the measures of frequency and measures of effect can be calculated from different study designs. 3

4. a) Write down the merits and demerits of open and closed ended questionnaire. 4
   b) The sensitivity and specificity of e-ELISA for the diagnosis of brucellosis in dairy cows were estimated as 92% and 96%, respectively. Interpret the parameters. 3
   c) Define positive predictive and negative predictive values. 2

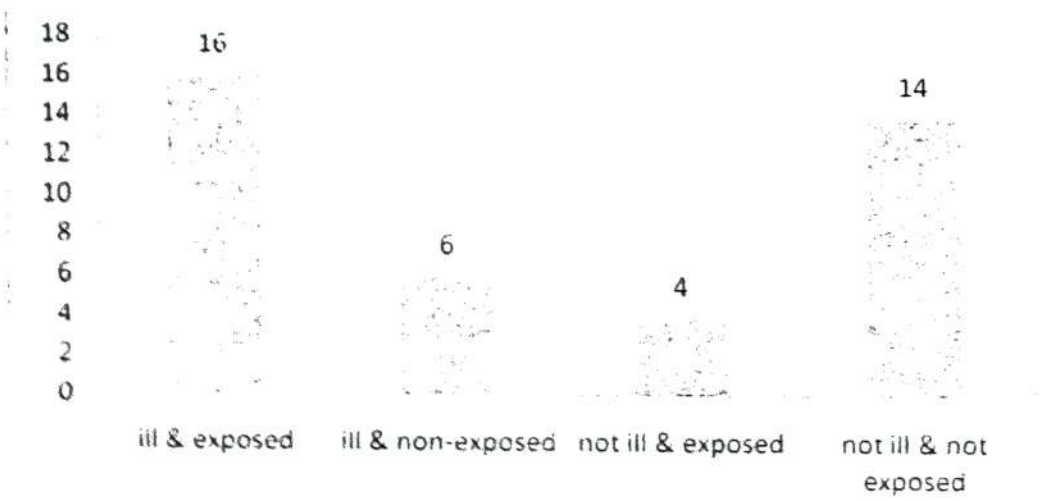
Section-B

5. a) Differentiate among sampling error, systemic error and random error. 3
   b) Write down different types of sampling techniques along with merits and demerits. 3
   c) What is the assumptions that you should consider to calculate sample size to investigate a prevalence of disease from a population. 3

6. a) What are the tools for measuring effect of risk factors on outcome? Mention the data needed to measure each kind of measures of effect. 5
   b) Define the terms of latent period, incubation period, sampling frame and confounding factor. 4

7. a) What do you mean by spatio-temporal patterns of disease occurence? Briefly explain different types of temporal pattern observed in infectious diseases. 5
   b) Explain herd immunity threshold with an appropriate example. 4

8. a) Constract a 2x2 table from the following graph and calculate the appropriate graph and calculate the appropriate measures of association and interpret the results.



Chittagong Veterinary and Animal Sciences University
DVM 4th Year 1st Semester Final Examination-2014
Course Title: Large Animal Medicine (Theory)
Course Code: LAM -401 (T)
Full Marks: 70, Time: 3 Hours

Figures in the right margin indicate full marks. Answer any **three (3)** questions from each section of which questions 1 and 5 are compulsory. Use separate answer scripts for each section.

Section-A

1. a. Enlist five different antibiotics with their generic and trade names, does as per body weight, routes of administration, duration of application along with their withdrawal period in food animal practice . 5
   b. Write down the epidemiology, clinical manifestations, public health significance and line of treatment of anthrax. 6

2. a. Enlist the vaccines of cattle produced by the DLS of Bangladesh. 1
   b. Name important bacterial diseases in buffaloes which affect respiratory system with the line of treatments. 4
   c. How will you differentiate the swollen dewlap due to HS from the swollen Jaw due to parasitic diseases. 3
   d. Enlist the vesicle forming viral diseases of ruminants. Provide the line of treatments. 4

3. a. Which bacterial disease in animals may be transmitted to veterinarians during handling those cases without necessary precautions and produce orchitis? 2
   b. Write down the clinical findings, diagnosis and economic importance of brucellosis in dairy cattle. 5
   c. How do you prevent and treat brucellosis in dairy farm? 5

4. a. Describe the epidemiology of black leg. 3
   b. How do you differentiate BQ from the other lameness diseases of cattle? 3
   c. Write a prescription for a young bull calf having body weight of 150kg that suffers from BQ. 3
   d. Discuss how will you prevent this disease in a cattle farm? 3

Section-B

5. a. Mention the common sources of poisoning in large animals. 2
   b. Write down the clinical signs and line of treatment of urea poisoning in cattle. 5
   c. Write a prescription of poisoning with a history of ingestion of diazinon with salivation in a cattle of about 300kg body weight. 4

6. a. What is BSE? How do you diagnose it in a cattle farm? 3
   b. Write down the epidemiology, cause and clinical signs of bovine ephemeral fever of a heifer. 5
   c. Mention the name of vesicular diseases of cloven hoof animals. Discuss the sequelae of post infection of FMD in cattle. 4

7. a. In which disease of horse causes lymphadenitis? Write down the clinical signs and line of treatment of lymphadenitis 5
   b. What are the postmortem lesions of TB and para TB affected animals. 3
   c. Define dermatophilosis? Provide the line of treatment of it. 4

8. Write down the detailed diagnosis procedures of the following diseases: 4x3=12
   a. Glanders in horse
   b. Strangle in mule
   c. Bovine viral diarrhea
   d. Collibacillosis in calf