

Chattogram Veterinary and Animal Sciences University
DVM 2nd year 2nd Semester Final Examination 2019
Subject: General Pathology II & Nutritional Pathology (Theory)
Course Title: GNP-202 (T)
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer three (3) from each section of which question number 1 is compulsory. Use separate answer script for each section.)

SECTION-A

- | | | | |
|----|----|--|--------------|
| 1. | a) | Differentiate between: | 2×2
=4 |
| | | i) Acute and delayed type II hypersensitivity ii) Exudate and transudate | |
| | b) | Sketch the formation of granuloma | 1 |
| 2. | a) | Briefly describe the pathogenesis of following conditions: | 1.5×2
= 3 |
| | | i) Erythroblastosis fetalis ii) Brown induration of lungs | |
| | b) | Briefly describe the vascular events of inflammation. | 3 |
| 3. | a) | Define immune response. Describe the mechanisms of humoral immune response to an extracellular foreign material. | 1+3
=4 |
| | b) | Show in diagram how a virus infected cell is attacked by a cytotoxic T lymphocyte. | 2 |
| 4. | a) | Write down the gross and microscopic lesions of catarrhal inflammation. | 2 |
| | b) | Describe the pathogenesis of | 4 |
| | | i) Parturient paresis ii) White muscle disease / vitamin E deficiency | |

Section B

- | | | | |
|----|----|---|---|
| 5. | a) | Define following terms: i) Interferon ii) Complement III) Antibody iv) Cytokine | 2 |
| | b) | Describe the healing process by scar tissue formation. | 2 |
| | c) | Explain the role of vitamin C and glucocorticoid during healing. | 2 |
| 6. | a) | Describe the sequence of events occur during vascular injury. | 2 |
| | b) | Explain the mechanism of Caisson disease. | 2 |
| | c) | Define and classify haemorrhage and emboli. | 2 |
| 7. | a) | How edema develops in an individual with heavy infestation of intestinal parasites. | 2 |
| | b) | What do you mean by 'Pits on pressure' | 1 |
| | c) | Explain why shock develop in certain bacterial infections and heart disease. | 3 |
| 8. | a) | Define autoimmunity and immunodeficiency. Enumerate five diseases in each case. | 2 |
| | b) | Describe the possible causes of immunodeficiency. | 3 |
| | c) | Enlist different diseases in animals with vitamin A and D deficiency. | 1 |

Chattogram Veterinary and Animal Sciences University
DVM 2nd year 2nd Semester Final Examination 2019
Subject: Pet and Small Ruminant Production (Theory)
Course Title: PSR-202 (T)
Full Marks: 35, Time: 22 Hours

(Figures in the right margin indicate full marks. Answer three (3) from each section of which question number 1 is compulsory. Use separate answer script for each section.)

SECTION-A

- | | | | |
|----|----|--|---|
| 1. | a) | What do you mean by Pet and Ruminant? | 1 |
| | b) | State the feeding habits and nutrient requirements of Black Bengal Goat. | 2 |
| | c) | Briefly describe the productive and reproductive characteristics of Black Bengal goat. | 2 |
| 2. | a) | Enlist five (5) sheep breeds suitable for Bangladesh. | 1 |
| | b) | State origin, distribution and reproductive characteristics of Merino sheep. | 3 |
| | c) | State the nutrient requirements of sheep | 2 |
| 3. | a) | Classify cat breed with examples. | 1 |
| | b) | Briefly describe nutrition and breeding systems of cats | 3 |
| | c) | State the social relation and behaviour of cats. | 2 |
| 4. | a) | Classify dog breeds with examples. | 1 |
| | b) | State the feeding practices of dog. | 3 |
| | c) | Illustrate some common training methods of dog. | 2 |

Section B

- | | | | |
|----|----|---|-------|
| 5. | a) | State the goat origin. | 1 |
| | b) | Illustrate the herd management practices of goat. Briefly describe with diagram. | 3 |
| | c) | Illustrate the feeding guide for goats. | 2 |
| 6. | a) | Briefly describe the prospects of goat farming in Bangladesh. | 2 |
| | b) | What are the breeding methods would you prefer for the improving of Black Bengal goat? Briefly describe with diagram. | 4 |
| 7. | a) | State the productive and reproductive characteristics of native sheep. | 3 |
| | b) | Make a concentrate mixture (%) for lambs, pregnant ewes and fattening ewe. | 2 |
| | c) | Why do farmers need to dip sheep? | 1 |
| 8 | | Write short notes (any three) | 3×2=6 |
| | a) | Prospects of sheep farming in Bangladesh. | |
| | b) | Difference between sheep and goat | |
| | c) | Common disease and parasites of goat | |
| | d) | Breeding efficiency | |
| | e) | Care and management of kids | |

Chittagong Veterinary and Animal Sciences University

DVM 2nd year 2nd Semester Final Examination 2018

Subject: Systemic Bacteriology & Mycology (Theory)

Course Title: SBM-202 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer Six (6) questions from each section, where question No. 1 & 5 are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) List the major gram positive organism with the diseases they cause in cattle and poultry. 4
b) Outline the procedure for the isolation and identification of *Staphylococcus pseudintermedius* from a case of pyoderma in a dog. 4
c) Describe the morphological and cultural properties of *Aspergillus fumigatus* 3
2. a) Define bacteria. Describe the criteria for classifying bacteria. 5
b) Discuss the growth and virulence factors for bacteria that shows McFadyean reaction 4
c) Define following terms: 3
i) Serovar ii) Biotype iii) Pathotype iv) strain v) Isolate vi) Species
3. a) Describe the extracellular products of *Staphylococcus aureus* 5
b) Illustrate the grouping of Streptococci based on C substance 3
c) List coagulase positive Staphylococci with their clinical importance in ruminants and pets 4
4. i) List extracellular products of Streptococci with their functions 5
ii) Mention the principal disease conditions caused by *Clostridium perfringens*. Explain Nagler reaction. 3+1=4
iii) Explain following term with causal agents 3
Diamond skin disease ii) Lumpy jaw iii) Wool's sorter' disease iv) Pulpy kidney disease v) Limberneck vi) Lockjaw

SECTION-B

5. a) Define mycotoxin and mycotoxicosis. Present the summary of the important characteristics of mycotoxins. 2+3
b) How can you differentiate *Bacillus anthracis* from *Bacillus cereus*? 2
c) Give the microscopic morphology of the dimorphic fungi in animal tissue and in culture at 25°C and at 37°C 4
6. a) Compare the feature of neurotoxins produced by *Clostridium tetani* and *Clostridium botulinum* 4
b) Name the suitable specimens required from various clinical conditions for the detection of *Listeria monocytogenes* and *Campylobacter jejuni* 2
c) Write down the toxins produced by *Clostridium perfringens* types A to E their biological activities and associated disease 6
7. a) How can a case of acute colisepticemia in a chick be diagnosed in laboratory? 4
b) Explain X and V factors that are required in media of isolation of *Hemophilus* species. How can you screen a cattle herd for brucellosis? 2+2
c) Illustrate the laboratory approaches for the diagnosis of Leptospirosis in animals 4
8. a) State the general features of *Corynebacterium renale*, *Pseudomonas aeruginosa* and *Moraxella* 3
b) Along with examples categorize dermatophyte based on habitat or host preference 2
c) How can a case of dermatophytosis in a dog be diagnosed in laboratory? 7

Chattogram Veterinary and Animal Sciences University
DVM 2nd year 2nd Semester Final Examination 2019
Subject: General Pharmacology (Theory)
Course Title: GPH-202 (T)
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer three (3) from each section of which question number 1 is compulsory. Use separate answer script for each section.)

SECTION-A

- | | | | |
|----|----|--|---|
| 1. | a) | Define pharmacy, drug, affinity and efficacy in drug receptor interaction. | 2 |
| | b) | Classify prescription. What are the conditions of good prescribing practice as a clinical veterinarian? | 3 |
| 2. | a) | Define drug incompatibility. Classify drug incompatibilities with example. | 2 |
| | b) | Suppose, you are a pet practitioner. An owner of a Labrador dog has been brought in your clinic with acute systemic bacterial infection. Which route would you choose during prescription of antibiotic? Differentiate between the prescribed route and oral route of drug administration. | 4 |
| 3. | a) | Classify barbiturates based on duration of action. | 2 |
| | b) | What do you know about euthanasia? Why preanesthetic agents are used before any surgery? | 2 |
| | c) | A cow had a problem of gangrenous tail. Surgically to amputate that tail, what kind of anaesthetic agent do you suggest? Write its name with mechanism of action and toxicity. | 2 |
| 4. | a) | Define bronchodilator with example. Illustrate the mode of action of salbutamol. | 2 |
| | b) | A dog is brought to you with complaints of vomiting, burning sensation in the stomach, acid reflux, heartburn and dyspepsia. Interpret the treatment approaches in this condition. | 4 |

Section B

- | | | | |
|----|----|---|-----------|
| 5. | a) | Mention some preparation of rumenototics. | 1 |
| | b) | Ginger and silica both are functional for treating bloat case of a ruminant. Justify the action of both agents with proper dose. | 3 |
| | c) | What is difference between astringents and protectants while using on the case of acute diarrhoea. | 2 |
| 6. | a) | Classify laxative and purgative with examples. | 2 |
| | b) | Justify the use of emetics, anti-emetics, sialagogues and intestinal stimulants. | 4 |
| 7. | a) | Name four diuretics with dose. Explain the mode of action, therapeutic purposes and contraindication of using spironolactone diuretics. | 3 |
| | b) | Do urinary acidifiers and alkalizer are popular in poultry and pet practices? If yes, what are those and how do they works? | 3 |
| 8 | | Write short notes on (any three) | 3×2
=6 |
| | a) | Local anaesthetics | |
| | b) | Drug nomenclature | |
| | c) | Drug interaction | |
| | d) | Biological half life | |

(Figures in the right margin indicate full marks. Answer any four (4) questions from each section where question number 1 and 6 are compulsory. Use separate answer script for each section).

SECTION-A

1. a) Mention the use of statistics in the field of veterinary science? 2
 b) Give an example of qualitative, continuous and discrete variables each with their respective scale of measurement 3
 c) Name three graphs by which quantitative variable can be measured. 3
2. a) 'Arithmetic mean is the best measure of central tendency' Do you agree? Defend your statement. 3
 b) Suppose you are given a data set of the number of eggs consumed by 12 families per week; 10, 11, 15, 11, 17, 7, 9, 16, 15, 10, 15 and 8. Compute any two measures of central tendency. 4
 c) When AM= GM = HM? Explain 2
3. a) Explain the concepts of standard deviation and coefficient of variation. Find the coefficient of variation from the scores of two batsmen in a series of 10 one day international cricket matches; Player A; 75, 81, 59, 78, 102, Player B: 91, 4, 35, 111, 31 Who is more consistent player? 5
 b) Describe the various types of skewness and kurtosis. Give the geographical presentation. You are given $\mu_2 = 8.52$ and $\mu_4 = 89.3$ from a distribution. Find out kurtosis and comment on the shape of the distribution. 4
4. a) What is the relationship between regression coefficients and correlation coefficient? Prove it. 3
 b) Twenty-five pairs of values of the variables X and Y led to the following results: 6
 $n=25, \sum X_i=127, \sum Y_i= 100, \sum X_i^2= 760, \sum Y_i^2=449, \sum X_i Y_i=500$
 Find the correlation coefficient and comment on the result
5. a) Explain principles of design of experiment. 3
 b) Give an example from your field about an experiment and indicate experiment unit, treatment, block and yield from that example. 4
 c) Draw scatter diagram showing positive, negative and no correlation 2

Section B

6. a) Which tests will you perform under the following conditions: 5
 i) $n_1=10, n_2=12, \delta =0.02$, ii) $n=45, s=0.36$, iii. $n=10, \delta=0.014$
 iv. Population variance with a specific value
 v) Independence of attributes
 b) Define level of significance, test statistic and power of test 3
 7. a) Write down a simple regression model stating the necessary assumption involved and mention the method to estimate the parameters of the model. 3
 b) The following data give the weight (kg) and ages (day) of the following chickens from a poultry farm: 6
 Weight: 1.3, 1.5, 1.2, 1.4
 Age: 2.6, 33, 24, 25
 i) Fit a regression equation of weight on age of chicken
 ii) What will be the weight of chicken on age their age will be 40 days
 8. a) Distinguish between Completely Randomized Design (CRD) and Randomized Block Design (RBD). When RBD will turn into CRD? 3
 b) The following table shows the result of inoculation against disease 6
- | Status | Disease | |
|----------------|--------------|----------|
| | Not attacked | Attacked |
| Inoculated | 360 | 25 |
| Non inoculated | 212 | 15 |
- Examine the effectiveness of inoculation in controlling susceptibility to bird flu. ($\chi^2_{1,0.05}=3.84, \chi^2_{2,0.05}=5.99$)
9. a) Write down the normal distribution. How many parameters in a normal distribution? Write the properties of it. 5
 b) Draw a normal curve. How do you convert a normal variable into a standard normal variable? 4
 10. a) Name a distribution whose mean is greater than variance with some properties. 4
 b) Indicate in each case whether true or false: 5
 i) In a positively skewed curve, mean < median < mode.
 ii) The second central moment does not indicate the variance.
 iii) The first central moment is always zero
 iv) The coefficient of variation is not a relative measure of dispersion
 v) While calculating variance every observation in a series is considered.

Chattogram Veterinary and Animal Sciences University
DVM 2nd year 2nd Semester Final Examination 2019
Subject: Systemic Bacteriology and Mycology (Theory)
Course Title: SBM-202 (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) Name for Gram positive bacterial pathogens responsible for most cases of bovine mastitis. Write down the pathogenic effects of the enzymes and toxins produced by *Staphylococcus aureus*. 2+4=6
- b) Explain McFadyean reaction. Give the characteristics microscopic appearance of *Corynebacterium renale*, *Clostridium tetani* and *Campylobacter jejuni* 2+3=5
2. a) What is the causative agent of 'Wooden tongue' in cattle? How will you diagnose the pathogen in laboratory? 1+5=6
- b) Write down the types of hemolysis caused by Streptococci on blood agar. Describe the identification criteria for *Brucella abortus* isolates. 2+4=6
3. a) What are the principal serovars of *Leptospira* associated with leptospirosis in domestic animals? Sketch the diagnostic procedures for *Leptospira*. 3+3=6
- b) Define mycotoxin. Enlist five different types of mycotoxin with their source, pathogenesis and clinical syndrome. 1+5=6
4. a) Define PPD. Discuss the procedure of screening a cattle herd for tuberculosis. List five (5) zoonotic bacterial diseases with causal agents. 1+4+1=6
- b) Name the organisms that produce the following diseases:
 i) Kennel cough in dog ii) Pink eye in cattle iii) Lumpy wool in sheep iv) Hemorrhagic septicaemia in buffalo v) Foot rot in sheep vi) Black disease in sheep 1×6=6

Section B

5. a) Name the important species of *Pasteurella* and *Avibacterium* with diseases they could cause to poultry. Briefly describe the toxins elaborated by *Clostridium perfringens*. 2+4=6
- b) Explain the antigenic features that are used for serotyping *Escherichia coli*. List the pathotypes of *E. coli* which produce enteric and extraintestinal clinical conditions in animals. 3+2=5
6. a) State the general features of *Actinomyces*, *Nocardia*, *Trueperella* and *Dermatophilus* species 6
- b) Write down the colonial characteristics of the bacterial pathogens causing circling disease in sheep. Explain the potential public health significance of *Erysipelothrix rhusiopathiae* and *Brucella melitensis*. 2+4=6
7. a) List the most important species of mycoplasmas and the diseases that cause in poultry. Name the genera of the order Rickettsiales of veterinary importance and the types of cell parasitized in host. 3+3=6
- b) Which organism is responsible for causing Q fever? Explain the developmental cycles of *Chlamydia*. 1+5=6
8. a) Outline the laboratory diagnostic approaches for the isolation and identification of *E. coli* and *Salmonella*. 6
- b) Write down the clinical conditions associated with *Aspergillus fumigatus*, *Candida albicans* and *Malassezia pachydermatis* in domestic animals. How can you isolate and identify *Malassezia pachydermatis* in dogs? 3+3=6

Chattogram Veterinary and Animal Sciences University

DVM 2nd year 2nd Semester Final Examination 2019

Subject: Poultry Nutrition and Feed Milling Technology (Theory)

Course Title: PNT-202 (T)

Full Marks: 70, 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).

SECTION-A

1.
 - a) Define essential and limiting amino acids. List the essential amino acids for poultry. 3
 - b) Define poultry and poultry nutrition. Discuss the principles of poultry nutrition. 4
 - c) What is phase feeding? Discuss the strategy for reducing feed costs in layer farms. 4

2.
 - a) Define feed additive and feed supplement. Classify feed additives with example. 4
 - b) Briefly discuss the physical, chemical and biological procedures for evaluation of feed ingredients. 4
 - c) What are the merits and demerits of using animal protein supplements and soybean meal in poultry feed 4

3.
 - a) Discuss the prospects and constituents of using unconventional feeds in poultry industry. 4
 - b) What are the acidifiers? Discuss their mode of action in poultry. 4
 - c) Why do bio-availability of plant phosphorus is poor in poultry? What strategy will you adopt to resolve the problem. 4

4. Write short notes on (any three) 4×3 =12
 - i. Calorie-protein ratio
 - ii. Interrelationship between Se and vitamin E
 - iii. Feeding standard for poultry
 - iv. Interrelationship of amino acids

Section B

5.
 - a) Why do age specific commercial broiler and layer nutrient requirement are sharply contrasting particularly for energy and protein. 3
 - b) Do you think use of prebiotics and probiotics are well justified? 4
 - c) Why do summer and winter nutrition differ for laying hen? Why should you use tranquilizers in poultry diet? 4

6.
 - a) Why feed milling is required? Compare and contrast different types of grinders and mixers used in modern feed mills. 4
 - b) Discuss the relative merits and demerits of mash, crumble and pellet feeds. Which type is best for commercial broiler and layer? 4
 - c) How should you minimize wastage of feed in a broiler farm? 4

7.
 - a) Discuss the specific deficiency symptoms of water-soluble vitamins in poultry. 4
 - b) Discuss the interrelationships among Ca, P and vitamin D. 4
 - c) Discuss the dietary factors that affect the quality of meat and egg in poultry. 4

8.
 - a) What are the specific lethal effects of mycotoxins in poultry? How should ameliorate them? 6
 - b) Discuss the guidelines for preservation and storage of poultry feed? 6

Chittagong Veterinary and Animal Sciences University

DVM 2nd year 2nd Semester Final Examination 2018

Subject: Poultry Production (Theory)

Course Title: PPR-202 (T)

Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer **Three (3)** questions from each section where question no. **1 and 5** are compulsory. Use separate answer script for each section. Fractions of the questions must be answered together)

SECTION-A

1. a) Define Poultry and Poultry Science. 2
b) Describe briefly the prospects and problems of broiler and layer production in Bangladesh. 6
c) Discuss the characteristics of chicken breeds (White Leghorn and Plymouth Rock) in a nutshell. 3
2. a) What is photoperiod and light intensity?. 2
b) Explain the lighting schedule for layer strain (ISA-white). 5
c) Suppose the area of a layer house is 7000 sq. ft and 2 foot candle (fc) is required for illuminate the house, calculate the no. of incandescent bulb require for this house 5
3. a) Briefly discuss the advantage and disadvantages of duck farming in Bangladesh. 6
b) Classify breeds of duck on the basis of utility with examples. 3
c) State the production characteristics of two egg producing breeds of duck. 3
4. Distinguish between: 6×2=12
a) Varsity and strain.
b) Pullet and hen.
c) Clutch and pause.
d) Brooding and rearing.
e) Capon and breeder male.
f) Parent stock and commercial stock.

SECTION-B

5. a) What is litter and nesting materials. ? 1
b) State the properties, problems and recycling processes of litter materials. 5
c) Discuss the poultry behaviour and welfare system. 5
6. a) What is broiler & meat chickens? 1
b) Sketch the lay-out of poultry processing plant. 4
c) Discuss the main steps of broiler processing. 5
d) 'Breast meat is the best meat'---Explain. 2
7. a) What is poultry feeding? Discuss the different feeding systems of poultry with its merits and demerits. 6
b) Write short notes on (any two): 3×2=6
i) Litter and litter management in poultry farm.
ii) Factors affecting egg production
iii) Fattening of geese.
8. Write short note (Any six): 6×2=12
a) Male duck
b) Animal crop
c) Lean meat
d) Egg shell mechanism
e) Egg Quality
f) Watch dog
g) Run
h) Toulouse
i) Swan
j) Local duck

Chattogram Veterinary and Animal Sciences University
DVM 2nd year 2nd Semester Final Examination 2019
Subject: Veterinary Nematology (Theory)
Course Title: VNM-202 (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 script for each section. Fractions of the questions must be answered together).

SECTION-A

- | | | |
|----|---|-------------|
| 1. | a) What is bursa? Enlist the genera under bursate and non-bursate nematodes. | 4 |
| | b) Classify esophagus of nematodes with examples. | 3 |
| 2. | a) Why the nematode is called roundworm? Describe the general morphology of ascarids. | 3 |
| | b) Illustrate the harmful effects in horses by the larval stages of <i>Strongylus</i> spp. | 4 |
| 3. | a) Illustrate the life cycle and pathology of bovine Ostertagiosis. | 5 |
| | b) Enlist the hookworms of domestic and pet animals. | 2 |
| 4. | a) Elaborate the biology and pathology of <i>Neoascaris vitulorum</i> . | 4 |
| | b) Formulate an effective control of strategy against filaroids. | 3 |
| 5. | a) Diagnose the following parasites in the laboratory through coprological examination- (any five) | 1×5
=5 |
| | <i>i. Haemonchus contortus</i> ii) <i>Trichostrongylus axei</i> iii) <i>Capillaria</i> spp iv) <i>Trichuris trichiura</i> v) <i>Ascaris suum</i> vii) <i>Dictyocaulus viviparus</i> | |
| | b) 'Poultry cecal worm plays vital role in the epidemiology of blackhead disease'- Justify | 2. |
| 6. | Write notes on any two of the following disease conditions. | 3.5×2
=7 |
| | a) Dracunculosis b) Summer sore c) Barber's pole worm | |

Section B

- | | | |
|-----|---|-------------|
| 7. | a) Mention the risk factors associated with 'humpsore' and 'muscle worm' infection | 3 |
| | b) Illustrate the life cycle of 'canine hookworm' | 4 |
| 8. | a) Enlist nematodes that are transmitted through 'skin penetration', 'trans-mammary' and 'transplacental'. | 3 |
| | b) Write down the life cycle, pathogenic significance and diagnosis of 'gapeworm' infection in turkey. | 4 |
| 9. | a) Contrast the life cycles of <i>Ascaris suum</i> , <i>Toxocara canis</i> and <i>Neoascaris vitulorum</i> . | 3 |
| | b) Write short note on 'hypobiosis' and 'PGE' | 4 |
| 10. | a) Explain why it is difficult to treat 'Dirofilariasis' in dog by anthelmintic? | 3 |
| | b) Write down the pathogenesis and clinical findings of 'Spirocercosis' in stray dogs. | 4 |
| 11. | a) How will you morphologically identify the following parasites in a clinical pathology laboratory? | 0.5×6
=3 |
| | <i>i) Haemonchus contortus</i> ii) <i>Ancylostoma tubaeformis</i> iii) <i>Trichuris globulosa</i> iv) <i>Strongylus equinus</i> v) <i>Macracanthorhynchus hirudinaceus</i> vi) <i>Dirofilaria immitis</i> | |
| | b) State the life cycle and public health significance of ' <i>Trichinella spiralis</i> ' infection | 4 |
| 12. | a) Enlist cuticular modifications of nematodes with appropriate examples. | 3 |
| | b) Write down the scientific name / causal agent against their below mentioned common name / condition | 4 |
| | i. Poll evil ii. Summer sore iii. Calabar swelling iv. Pinworm (man) v. Redworm (horse) vi. Fork worm vii. Whipworm (dog) vii. Eyeworm (poultry) | |

Chittagong Veterinary and Animal Sciences University
DVM 2nd Year 2nd Semester Final Examination-2015
Course Title: Veterinary Nematology (Theory)
Course Code: VNE- 202 (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.)

Section-A

1. a) Draw and label a longitudinal section of a typical male nematode. 3
b) Illustrate with diagram the different types of esophagus of nematode parasites. 4
2. a) List the definitive hosts with the predilection sites of any three of the following 3 nematodes.
i) *Toxocara vitulorum*, ii) *Heterakis gallinarum*,
iii) *Oesophagostomum radiatum*, and iv) *Syngamus trachea*.
b) Compare the morphological features between Ascaridia and Strongyloidea. 4
3. Describe the pathologic significance of the followings: 7
(a) Anchylostomiasis in dogs, and
(b) Lung worm infestation in calves.
4. a) Sketch the life cycle of canine ascarid worms. 3
b) How verminous aneurysm and verminous colic are produced in horse? 4
5. a) Describe the life cycle and pathologic significance of canine heart worm infection. 4
b) Explain the pathologic effect of *Spirocerca lupi* infection in dog. 3
6. a) Describe the life cycle of *Trichinella spiralis*. 3
b) Enlist eight nematodes causing diarrhoea and/or anaemia in animals. 4

Section-B

7. a) Name six bursate and six non-bursate nematodes. 3
b) How will you differentiate between type-I and type-II ostertagiasis? 4
8. a) Name the parasitic nematodes of ducks with their predilection site in the hosts and their brief significance. 3
b) Write brief notes on:
(i) Hypobiosis, and (ii) Periparturient rise. 4
9. a) Draw and label the cuticular modifications of nematodes. 3
b) What do you mean by following conditions? 4
i) Summer sore, ii) Sweating blood, iii) Humpsore, and iv) Nurse cell.
10. a) Show the nematodes of dogs according to predilection site in a diagram. 4
b) Design the control measures against public health significant nematodes. 3
11. a) Write down the life cycle and pathologic significance of *Haemonchus contortus* infection in a heifer. 4
b) Write down the pathologic significance of kidney worm of pig. 3
12. State the important morphological characteristic of the following nematodes. 7
a) *Trichuris suis*, b) *Syngamus trachea*,
c) *Toxocara vitulorum*, d) *Strongylus vulgaris*,
e) *Stephanofilaria assamensis*, f) *Ascaridia galli*, and
g) *Oesophagostomum radiatum*.