

Chattogram Veterinary and Animal Sciences University
DVM 2nd year 2nd Semester Final Examination, 2021
Subject: Poultry Production (Theory)
Course Title: PPR-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 No. **1** and **5** are compulsory. Use separate answer script for each section.)

SECTION-A

1. a) What is feed conversion ratio (FCR)? State the factors affecting FCR in chicken. 5
b) Illustrate the egg formation mechanism in chicken. 6
2. a) Enumerate importance of lighting for poultry. Write down the principles of lighting for poultry. 6
b) "Controlled lighting is essential for layer" – Explain with justification. Mention lighting schedule for layer and broiler. 6
3. a) What is replacement pullet? Mention the characteristics of laying hen. 6
b) Write down the factors affecting the quality of egg. 6
4. a) What do you mean by bio-security in poultry farm? State the basic bio-security and preventive measures that should be taken in a broiler or layer farm. 6
b) Write down the requirements of an ideal poultry house. 6

SECTION-B

5. a) What is specialized fowl, mule duck, caruncle, bean and hytop? 2
b) Mention the egg producing duck breeds with their quantitative traits. 4
c) State the prerequisites of duck cum fish integrated farming systems. 5
6. a) Enlist the breed and varieties of Quail and Chinese fowl. 2
b) State the prospect and problems of rearing Quail in Bangladesh. 5
c) Describe the brooding and rearing management of keet and poult. 5
7. a) What is holiday bird? Classify the breed of Geese with example. 2
b) State the feeding and fattening practices of Geese 5
c) Distinguish between Geese and Swan 3
d) Write the daily feed intakes of duck, geese, guinea fowl, quail, pigeon and turkey. 2
8. Write short note on any four of the following 4 × 3
a) Breeding techniques of Turkey = 12
b) Furnished cage and battery cage
c) Mallard and Muscovy duck
d) Moulting and broodiness traits
e) Productive traits of Ostrich and Pea fowl
f) Breeding techniques of Turkey
g) Migratory bird and water fowl
h) Balut and table egg

Chattogram Veterinary and Animal Sciences University
DVM 2ndYear 2ndSemester Final Examination 2021
Course Title: General Pathology II and Nutritional Pathology(Theory)
Course Code: GNP-202 (T)
Full Marks: 35, Time: 2 Hours

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

SECTION-A

- | | | |
|----|--|---------------------|
| 1. | a) Define following terms:
i) Cytokine ii) Antigen iii) Complement iv) Interferon
b) Briefly elaborate the vascular events of inflammation. | 2
3 |
| 2. | a) Define autoimmunity and immunodeficiency. Name three diseases in each case.
b) Classify inflammation based on duration and exudate. Describe the inflammation seen in case of calf diphtheria. | 2
2×2
=4 |
| 3. | a) Write the name and pathology of the following inflammation:
i) Abscess in skin ii) TB nodules in lung
b) Why and how night blindness occur in newborn calf due to vitamin A deficiency? | 2×2
=4
2 |
| 4. | a) Define and classify shock. Explain the pathogenesis of septic shock.
b) Enlist the types and causes of haemorrhage.
c) Explain the role of vitamin(s) and hormone(s) during wound healing. | 1+2
=3
1
2 |

SECTION-B

- | | | |
|----|--|---------------------|
| 5. | a) Enumerate the injurious agents causing inflammation. Describe the role of macrophages and lymphocytes in inflammation.
b) Compare and contrast granulation tissue and granuloma.
c) What are the factors interfere the wound healing? | 1+2
=3
2
1 |
| 6. | a) Illustrate with diagram the humoral immune responses against extracellular antigens.
b) Discuss the conditions develop in case of liver disease; how and why these changes are occurred? | 3
3 |
| 7. | a) Describe the pathological conditions that are produced in vitamin E deficient chickens. How are they developed?
b) Describe the etiology and pathogenesis of ketosis in cattle. | 3
3 |
| 8. | Write short notes on (any three) | 3×2
=6 |
| | a) Transfusion reaction
b) Elephantiasis
c) Grass tetany
d) Ante-mortem clot | |

Chattogram Veterinary and Animal Sciences University

DVM 2nd year 2nd Semester Final Examination 2021

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 No. 1 and 5 are compulsory. Use separate answer script for each section.)

SECTION-A

- a) Describe McFadayan reaction. Differentiate between properties of *Bacillus anthracis* and *Bacillus cereus* 1+2=3
- b) Explain following terms; i. Acid fast bacteria ii. Inverted fir tree appearance 2+2=4
- c) Enumerate extracellular products of Streptococci with their functions. 4.0
- a) List gram positive anaerobes causing disease in animals and birds. Write down the pathogenic effects of metabolites produced by *Staphylococcus aureus*. 2+4=6
- b) Mention various types of mycotoxin with their sources. Differentiate between two neurotoxic clostridial species causing flaccid paralysis and spastic paralysis. 2+4=6
- a) Describe the procedures of identifying tuberculosis in a cattle herd. Define PPD. 5+1=6
- b) List the major toxins produced by *Clostridium perfringens* type A to E. Write down in vivo and in vitro morphology of dimorphic fungi at 25°C and 37°C. 2+4=6
- a) Describe the Lancefield classification for Streptococci. List coagulase positive Staphylococci of veterinary importance. 3+3=6
- b) Explain Nagler reaction. Briefly describe the cell constituents of Mycobacteria. 2+4=6

SECTION-B

- a) Name Corynebacterium species of veterinary importance. Describe the isolation and identification procedures of organism causing lumpy jaw in cattle. 2+3=5
- b) Name Mycoplasma species causing important diseases in cattle, goat and poultry. 2.0
- c) Describe the growth characteristics of organism causing infectious coryza in poultry. How can you diagnose Brucella in a cattle farm? 2+2=4
- a) Summarize the pathogenic Actinobacteria of veterinary importance and the diseases that they cause. Write down the colony morphology of *Pseudomonas aeruginosa* on blood and brilliant green agar. 4+2=6
- b) Which dermatophytes are responsible for causing dermatophytosis in cattle and dogs. How will you diagnose them? 2+4=6
- a) Name the bacterial pathogens frequently isolated from bovine mastitis. Write down the microscopic appearance of *Corynebacterium renale*, *Clostridium chauvoei*, *Pasteruella multocida* and *Dermatophilus congolensis*. 2+4=6
- b) Which bacterial pathogen is responsible for causing 'pink eye' in cattle? Describe the pathogenic effects of the enzymes and toxins produced by *Staphylococcus aureus*. 1+5=6
- a) Give the comparative features of *Pseudomonas aeruginosa*, *Burkholderia mallei* and *Burkholderia pseudomallei*. Write down the characteristics neurotoxin elaborated by *Clostridium tetani*. 4+3=7
- b) State the identifying characteristics of *Candida albicans* and *Malassezia pachydermatis*. Outline the procedure employed for the isolation and identification of the causal agent of brooder pneumonia in poultry. 2+3=5

Chattogram Veterinary and Animal Sciences University

DVM 2nd year 2nd Semester Final Examination 2021

Subject: General Pharmacology(Theory)

Course Title:GPH-202 (T)

Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer any **Three (3)** questions from each section, where question No. **1** and **5** are compulsory. Use separate answer script for each section.)

SECTION-A

1. a) How will you differentiate between 'Drug' and 'Medicine' as a substance? Name five drugs that act on digestive system. 2
b) Define Pharmacopoeia, Pharmacokinetics, Pharmacodynamics, Therapeutic, Posology and Metrology. 3
2. a) How will you classify the receptors? Write in detail about G protein coupled receptors in the process of Pharmacodynamic. 1+2=3
b) Compare and contrast Phase I and Phase II Biotransformation reactions. Be able to distinguish enzymes and why each phase is important in Biotransformation. 2+1=3
3. a) Describe the principles of drug absorption, drug disposition and drug action. 2
b) Provide detail interaction of drugs with food, minerals and other drugs during drug absorption. 2
c) Describe the branches of pharmacology. 2
4. a) Define and Classify prescription with Example. 3
b) A 2-year-old dog was presented to SAQ Teaching Veterinary Hospital (SAQTVH), CVASU with history of diarrhoea, abdominal pain and anorexia. The diarrhoea was frequent and emit a bad odour. Physical examination revealed a distress and weak dog. Write a prescription in standard format. 3

SECTION-B

5. a) Classify parasympatholytic drugs on the basis of sources. 2
b) Describe the different clinical stages of anaesthesia. 2
c) Define i) Narcotics ii) Sedative 2
6. a) Classify purgatives. Explain the mechanism of action of irritant purgative. Cite the examples of few naturally available purgative agent in Bangladesh. 1+1+1=3
b) Define i) alkaloid ii) biotransformation iii) first pass effect iv) placebo v) astringent vi) clearance vii) glycoside viii) plasma half-life ix) BP x) demulcent 3
7. a) The unnecessary use of diuretics towards a healthy horse, can lead to dehydration, hypokalaemia and hypotension- justify the mechanism of action of this adverse effect. 3
b) Differentiate between loop diuretics and carbonic anhydrase inhibitors diuretics 3
8. a) Describe the centrally and peripherally acting antitussive preparation available for treating pet animals. 2
b) How many types of expectorants are there? 2
c) Describe the role of potassium iodide and prednisolone in respiratory disorder. 2

Chattogram Veterinary and Animal Sciences University
DVM 2nd year 2nd Semester Final Examination, 2021
Subject: Pet and Small Ruminant Production (Theory)
Course Title: PSR-202 (T)
Full Marks: 35, Time: 2 Hours

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

SECTION-A

1. Briefly discuss the problems and prospects of goat rearing in Bangladesh. 5
2. a) Classify cat with example. 2
b) Briefly discuss the common management procedure of cat rearing. 4
3. a) Briefly discuss the domestication of dogs. 3
b) What are the common management practices for the prevention of disease in dogs? 3
4. Write short notes any three 6
a) Importance of sheep rearing in Bangladesh
b) Housing of cat
c) Infectious diseases of cat
d) Zoological classification of sheep

SECTION-B

5. a) What is lordosis? Describe mating behaviour of cat. 3
b) What are the points to be considered while taking care of a new born Kitten? 3
6. a) Describe the signs of estrous and mating behaviour of dog. 3
b) Enlist the points to be considered while performing exercise and training of dogs. 3
7. a) Briefly describe the ONBS breeding system of goats with neat diagram. 3
b) Tabulate a routine of daily activities in a goat farm at semi-intensive system of management. 3
8. a) Sketch a sheep shed with specific measurement of each particular. 3
b) Tabulate the strategy of feeding sheep at different stages of their life. 3

Chattogram Veterinary and Animal Sciences University

DVM 2nd Year 2nd Semester Final Examination 2021

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 (5)** questions from each section. Use separate answer script for each section.)

SECTION-A

1. a) Write down the superfamily of parasitic Nematoda of veterinary importance categorized with bursate and non-bursate. 4
b) Write down the typical features (any three) of i) Trichostrongylus, ii) Syngamus, iii) Thelazia, iv) Strongyloides 3
2. a) Differentiate the life cycles among *Ascaris suum*, *Toxocara canis* and *Neoascaris vitulorum* 3
b) Illustrate the factors associated with the transmission of nematode infection in animals. 4
3. a) Mention the risk factors associated with "Muscle worm disease" in man and animal. 3
b) Sketch the pathogenesis of "Haemonchosis" in sheep. 4
4. a) What is parasitic zoonosis? Enlist the zoonotic importance nematode species. 3
b) Briefly describe the life cycle and pathogenic significance of "Nodular worm disease" in goats. 4
5. a) State the life cycle and public health significance of "*Trichinella spiralis*". 4
b) "Poultry cecal worm plays vital role of causing blackhead disease" -explain. 3
6. a) Write down the name of three anthelmintics which are mostly resistance to nematodes. 2
b) Design the control measures against public health significant nematodes. 3
c) Write down the name of the parasitic nematodes species which are found in poultry in Bangladesh. 2

SECTION-B

7. a) What is "roundworm". Briefly mention the common morphological features of a "roundworm". 4
b) Describe the pathogenic significance of "Lungworm" infection in cattle. 3
8. a) Enlist the helminths of horses with their predilection sites. 3
b) Illustrate the life cycle and pathogenic significance of a parasite causes "Equine strongylosis". 4
9. a) Explain why it is difficult to treat "Canine heart worm" disease by anthelmintics? 3
b) How will you diagnose "Dirofilariasis" and differentiate it with *Dipetalonema* species infection? 4
10. a) How will you diagnose the following parasitic infections in a parasitology laboratory? 0.5×
i) *Toxocara vitulorum*, ii) *Trichuris vulpis*, iii) *Stroglyoides westeri*, iv) *Oxyuris equi*, 6=3
v) *Ostertagia ostertagi*, vi) *Diocotophyma renale*
b) Write down the scientific name/causal agents against the following names/conditions: 0.5×
i) Lymphatic filariasis, ii) Robles disease, iii) Lumber paralysis, iv) Pimply gut in pig, 8=4
v) Sweat bleeding, vi) Gunea worm, vii) Human hook worm, viii) African eye worm
11. a) Define neglected tropical disease. Mention five (5) important neglected tropical parasitic diseases found in Bangladesh. 3
b) Briefly explain the life cycle and pathogenic significance of "Spirocercosis" in dogs. 4
12. Write short note on any two of the following diseases/conditions: 3.5×
a) Cutaneous larval migrans
b) Thorny-headed worms
c) Onchocercosis 2=7

Chattogram Veterinary and Animal Sciences University
DVM 2nd year 2nd Semester Final Examination 2021
Subject: Poultry Nutrition and Feed Milling Technology (Theory)
Course Title: PNT-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 No. **1** and **5** are compulsory. Use separate answer script for each section.)

SECTION-A

- | | | |
|----|---|---------|
| 1. | a) Define feeds, feeding and diet. | 3 |
| | b) Write down the effects of diet on egg quality and egg production. | 4 |
| | c) State the conventional and unconventional poultry feeds with importance and limitations. | 4 |
| 2. | a) Illustrate feed conversion ratio of broiler and layer with importance | 4 |
| | b) Discuss the effects of anti-nutrients on poultry production. | 4 |
| | c) Discuss the logical steps for evaluation of poultry feed in a feed mill. | 4 |
| 3. | a) Classify poultry feeds on the basis of nutritional point of view. | 4 |
| | b) List the essential, limiting and critical amino acids for laying hen. | 4 |
| | c) Explain mycotoxins in poultry feeds with occurrence and safety. | 4 |
| 4. | Write short notes (Any four) on: | 4x3= 12 |
| | a) Feeding standard for poultry | |
| | b) Factors affecting feed conversion ratio | |
| | c) Feed additives. | |
| | d) Curled toe paralysis | |
| | e) Cage layer fatigue | |

SECTION-B

- | | | |
|----|---|---|
| 5. | a) Define phase feeding. Discuss the importance of phase feeding in a high yielding commercial laying flock. | 3 |
| | b) Discuss the calorie protein ratio (CPR). What is the ultimate consequence of widening or converging CPR in a broiler finisher diet? | 4 |
| | c) Discuss the factors regulating nutrient requirement of poultry. | 4 |
| 6. | a) What do you mean by feed milling? What are the most important benefits of feed pelleting? | 4 |
| | b) Compare the merits and demerits of different types of grinders and mixers used in a modern feed mill. | 4 |
| | c) What are the usual types of conveyors used in pellet mill? How should you overcome the adverse effects of steaming on heat sensitive delicate nutrients? | 4 |
| 7. | a) Define essential amino acid. List the essential amino acids required for different species of commercial poultry. | 4 |
| | b) Justify the concepts of semi-essential amino acids with example. Discuss the synergistic antagonistic relationships of amino acids for poultry with example. | 4 |
| | c) 'Plant' or 'animal' which sources of proteins are best for poultry and why? Justify your answer with arguments. | 4 |
| 8. | a) Demonstrate a precise guideline for feeding commercial broiler from 1 st to 28 th day. | 4 |
| | b) What are the precautions of feeding replacements pullet? How should you minimize wastage of feed in poultry? | 4 |
| | c) Which strategy could be adopted to reduce feed cost in poultry? | 4 |

(Figures in the right margin indicate full marks. Answer any Four (4) questions from each section, where question No. 1 and 6 are compulsory. Use separate answer script for each section.)

SECTION-A

1. a) Suppose there are 4 sheds in a poultry farm raising layers of 1 year. Each shed has 50 layers. How would you draw a sample from that poultry farm? Explain. 4
- b) Indicate the type and measurement scale of the following variables- 4
 - (i) Weight of cows of a dairy farm.
 - (ii) Number of chickens affected by Colibacillosis in a poultry farm.
 - (iii) Temperature of cattle in a farm.
 - (iv) Size of a goat in a farm.
2. a) Discuss the measures of central tendency. Which one is the best and why? 5
- b) Calculate the mean and the median of the following data set. What evidence is there for concluding that the following data (body) are or are not symmetrically distributed? 4
Body weights of 16 weanling female mice in grams:
54.1 49.8 24.0 46.0 44.1 34.0 52.6 54.4 56.1 52.0 51.9 54.0 58.0 39.0 32.7 58.5
3. a) Distinguish between i) Primary and Secondary data; ii) census and sample survey 5
- b) What is meant by a representative sample? State some possible sources of data collection. 4
4. a) Suppose you are given a data set on average buffalo milk production (in million) in different countries in 2018. Name the graphs you can use to display this data. 5
- b) A medium scale farmer pays his hourly workers wage 16.50 BDT, 19.00 BDT and 25.00 BDT per hour. There are 26 hourly workers, 14 of which are paid at the 16.50 BDT rate, 10 at the 19.00 BDT rate and 2 at the 25.00 BDT rate. What is the mean hourly rate paid to the 26 workers? 4
5. a) "Co-efficient of variation is the best measure of dispersion"- Justify. 4
- b) The second quartile of a distribution of weights of 50 goats is 15 kg. Interpret this statement. 2
- c) From the above statement which measure of the central tendency is obtainable? Explain. 3

SECTION-B

6. a) Explain treatment, block, experimental unit and yield with an example in your field. 4
- b) Compare and contrast among CRD, RBD and LSD. 3
- c) In what circumstances RBD will turn into CRD? 1
7. a) Explain level of significance in hypothesis. 2
- b) Certain drug is effective in curing cold. In an experiment on 500 poultry farmers suffering from cold, half of them were given sugar pills and half of them were given a drug. Test the reaction of the treatments on curing cold at 5% level of significance: 7

	<u>Helped</u>	<u>Harmed</u>	<u>No Effect</u>
Sugar Pills	130	40	80
Drug	150	30	70

Use any one $\chi^2_{0.05,1} = 3.841$, $\chi^2_{0.05,2} = 5.991$ $\chi^2_{0.025,2} = 7.378$

8. a) Explain the concept of 'correlation' and 'regression'. Why do you need scatter diagram in correlation analysis? 3
- b) Suppose 'r' is the correlation coefficient between X and Y; b_1 is the regression coefficient of Y on X and b_2 is the regression coefficient of X on Y. Comment on the following sets of values: 6
 - i) $b_1=1.2$ and $b_2=1.4$
 - ii) $b_1=0.6$ and $b_2=-0.8$
 - iii) $b_1=-0.2$; $b_2=-0.8$ and $r=-0.4$
 - iv) $b_1=0.8$ and $b_2=0.4$
9. a) Explain empirical probability with an example. 4
- b) In and 30 due to FMD a farm of 40 cows 35 died due to mastitis and 25 due to both. A cow is randomly selected from the farm. What is the probability that the selected cow died due to – 5
 - (i) Only Mastitis
 - (ii) Mastitis and FMD
 - (iii) T least one disease
 - (iv) FMD
 - (v) What is the conditional probability of FMD given Mastitis?
10. a) Calculate any three relative measures of dispersion from the following data set of the family size of small scale dairy farmers and comment: 3, 6, 1, 4, 7, 3, 4, 4, 12, 6, 8, 7 6
- b) Explain the principles of experimental design with an example. 3