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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2013
Course Title: Agricultural Extension (Theory)
Course Code: AEX-402 (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. Explain the terms of Extension and Agricultural Extension. 3
b. Mention ten principles of Agricultural Extension. 3
c. Agricultural extension is a continuous process. -Explain 4
2. a. Define innovation. State the different types of innovation with examples. 4
b. What are the causes for discontinuance of a technology after its adoption? 5
3. a. Define participation. What are the key features of Participatory Rural Appraisal? 4
b. How people participate in development activities? 5
4. a. Define leader and leadership. Mention the characteristics of a good leader. 3
b. Describe in brief about selection, development and recognition of local leaders. 4
c. Differentiate between 'autocratic' and 'democratic leader'. 2

Section-B

5. a. Define teaching and learning. Differentiate between extension teaching and class room teaching. 3
b. Classify the extension teaching methods based on its use. Distinguish between teaching methods and teaching aids. 3
c. Write down the advantages and limitations of 'farm and home visit'. 3
6. a. What is innovativeness and adopter category? 3
b. Discuss the characteristics of 'innovators'. 6
7. a. Define monitoring and evaluation. 2
b. Write down the steps of project evaluation. 4
c. Discuss the tools of monitoring. 3
8. Write short notes: (any three) 3x3 = 9
 - a. Extension program planning
 - b. Motivation
 - c. Law of exercise
 - d. Leaflet

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2013
Course Title: Veterinary Jurisprudence (Theory)
Course Code: VJR-402 (T)
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer any **two (2)** questions from each section where question **no. 1** is compulsory. Use separate answer scripts for each section.)

Section-A

1. a. What is Jurisprudence? Write down the scope of Jurisprudence. 2
b. What is law and court? Name of the Acts & ordinance prevailing in Bangladesh related to veterinary jurisprudence. 3
c. Classify people's attitude towards animals according to Kellert (1988). 3
2. a. Write down the format of health certificate of animal or bird export. 4
b. Describe common offences against animals. 5
3. a. Define Veterinary ethics? What is the significance of Veterinary ethics? 4
b. As a Veterinarian, what ethics you should obey under the following situations. 5
 - i. Drug use for race horse.
 - ii. Public calling for treatment of a cow which is previously treated by another Veterinarian.
 - iii. Setting up private practice.

Section-B

4. a. Explain different veterolegal wounds. 3
b. Write down the characteristics of death from drowning, lightning & electrocution. 4
c. Why do you need registration for pet animals? 2
5. a. What is Glander's and Fercy Act? Classify criminal courts. 3
b. What will you do when a police officer presses to give a case report? 3
c. Enumerate the signs of death. How will you differentiate primary flaccidity from secondary one? 3
6. Write short notes on :
 - a. Euthanasia 3
 - b. Livestock & livestock products quarantine act. 3
 - c. The Bangladesh Veterinary council regulation-1985. 3

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2013
Course Title: Veterinary Public Health (Zoonoses and Food Hygiene)
Course Code: VPH-402 (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 & 5 are compulsory. Use separate answer scripts for each section.)

Section-A

1. a. What are the domains of Veterinary Public Health? How can a veterinarian play important role to promote public health activities in Bangladesh? 6
b. What do you mean by emerging zoonoses? Classify zoonotic diseases with examples on the basis of ecosystem and direct of transmission. 5
2. a. Describe briefly various methods of food preservation. 6
b. Mention the steps are to be undertaken to preserve of eggs for longer period. 6
3. a. Explain CCP and HACCP. 4
b. How will you collect liquid and surface samples from a food industry for microbial examination? 4
c. Illustrate the design of an abattoir. 4
4. a. Define food additives with example. Write down the characteristics of an ideal antimicrobial preservative. 6
b. Describe the compositional factors of food that influence the microbial activity. 6

Section-B

5. a. Define following groups of bacteria with example I) Thermophilic II) Thermotolerant III) Coliform 6
b. How does oxidation reduction (O-P) potential of a food substance dictate microbial growth? 3
c. Classify food by ease of spoilage. 2
6. a. What are the objectives of meat inspection programme? Narrate the essential values for ante-mortem examination of animals. 6
b. Give your judgment of postmortem examination for following disease / conditions. 6
I) Anthrax II) Black quarter III) Brucellosis IV) Septicemia V) FMD VI) Rabies
7. a. Define meat hygiene. Write down the role of veterinary meat hygienist. 4
b. How can you define carcass yield of cattle? Is there any difference of carcass yield between cattle and pig? 4
c. What are the advantages of resting and watering of animal prior to slaughter? 4
8. a. Define and classify food borne disease. 6
b. What is food borne disease outbreak? How do you investigate a food borne disease outbreak? 6

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2013
Course Title: Hides, Skins and Wool Technology (Theory)
Course Code: - HWT- 402 (T)
Full Marks: 55 Time: 3 Hours

902 (P)

(Figures in the right margin indicate full marks. Answer any **three (3)** questions from each section where question **no. 5** is compulsory. Use separate answer scripts for each section.)

Section-A

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|----|----|--|---|
| 1. | a. | Define wool, hair and kemp. Briefly discuss the virtues of wool. | 4 |
| | b. | Discuss the factors affecting the quality of wool. | 3 |
| | c. | Mention the relationship between condition and shrinkage of wool. | 2 |
| 2. | a. | Define curing and tanning. Classify the different methods of curing hides and skins. Write down the advantages of brine curing. | 4 |
| | b. | Mention the methods of curing hides and skins which the rural traders including the Fariahs and Beparies generally follow. Why do they prefer that method? | 3 |
| | c. | What do you mean by tensile strength of leather? | 2 |
| 3. | a. | List the edible and inedible slaughter house by-products. | 3 |
| | b. | Briefly discuss the commercial uses of slaughter house by-products. | 3 |
| | c. | Differentiate among fleshing, meating and fatting. | 3 |
| 4. | a. | Briefly discuss the structure and functions of different layers of carpet wool. | 4 |
| | b. | Define wool. Briefly describe the faults of wool due to genetic and inherited defects. | 3 |
| | c. | Write short notes on grading of cattle hides in Bangladesh | 2 |

Section-B

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|----|--|--|----|
| 5. | Differentiate the following (any five) | 5x2 | 10 |
| | a. | Fallen hide and country hide | |
| | b. | Grease, suint and yolk | |
| | c. | Felting, weaving and knitting | |
| | d. | Upholstery leather and wet blue leather | |
| | e. | Abattoir and slaughter house | |
| | f. | Scouring and carbonizing | |
| | g. | Staple length and spinning count | |
| 6. | a. | State microscopic structure of cattle hide with a neat diagram. | 4 |
| | b. | Differentiate cattle and buffalo bull hide in a tabular form. | 3 |
| | c. | Why khari salt is more preferable to curing raw hides and skins during monsoon? | 2 |
| 7. | a. | Classify tanning agent. Mention the chemical and physical changes in hides and skins during conversion to leather. | 4 |
| | b. | List the steps in chromium tanning. Briefly describe the Tanyard operations of chromium tanning that you have experienced from tannery visit. | 3 |
| | c. | Differentiate chromium tanning from vegetable tanning. | 2 |
| 8. | a. | Mention the possible damage and defects of hides and skins during flaying in Eid-ul-Adha by non-professional butchers. How could you minimize those defects? | 4 |
| | b. | Briefly describe the chemical composition of raw goat skin. | 3 |
| | c. | Briefly describe the role of a Veterinarian to produce better quality hides and skins. | 2 |

(Figures in the right margin indicate full marks. Answer three (3) questions from each section, where question no.1 & 5 are compulsory. Use separate answer scripts for each section.)

Section-A

1. a. Classify myiasis. Which type of myiasis is clinically significant and why? 3
b. Describe diagnosis and treatment of mange in cattle 3
c. What do you mean by summer sore in equine? Describe its clinical signs, diagnosis and treatment? 5
2. a. Write down the important blood sucking intestinal parasite. Write the line of treatment of haemonchosis in calf. 6
b. Write the treatment of schistosomiasis in cattle. 2
c. Differentiate between fascioliasis and paramphistomiasis. 2
d. Write down four anthelmintics against fascioliasis with generic and trade name and dose.
3. a. Write down the differential diagnosis of babesiosis from other similar diseases. 3
b. Write down the clinical pathology and treatment of anaplasmosis in cattle. 4
c. Write down the causes and disease manifestation of deg-nala-disease in calves. 3
d. Describe gutteromycosis in horse. 2
4. a. Describe epidemiology of contagious bovine pleuropneumonia (CBPP) with special emphasis on transmission. 4
b. Write down the diagnosis, prevention and control of CBPP. 5
c. Name rickettsicidal and babesicidal drugs with generic and trade name with doses. 3

Section-B

5. a. Write two injectable anthelmintics with their generic name and trade name as well as dosage, route and course. 3
b. Write down the name of diseases, transmitted by tick. Prescribe for the treatment of tick infestation in Bull. 3
c. What are the precautionary measures adopted by the owner during spraying or deeping by insecticide. 2
d. Enlist the intestinal parasites those causes diarrhoea. Write down the treatment with a specific drug for gastro intestinal parasites. 3
6. a. Write down some zoonotic important parasitic, fungal, protozoal and rickettsial diseases in cattle. Write notes on the most important zoonotic fungal disease of cattle. 4
b. Write line of treatment of Mycotic Mastitis in dairy cow. 2
c. Write the mode of transmission of hook worm disease in calf. 3
d. Write the etiology of Moniziasis in calf. Write the line of treatment of Moniziasis. 3
7. a. What are the methods of tick control? Describe vaccination against tick infestation. 3
b. Describe clinical signs and control measures against coccidiosis in calves 5
c. How will you diagnose and treat cryptosporidiasis in young ruminants. 4
8. a. What is surra? 1
b. What are the clinical manifestations of surra in horses? 3
c. How immune evasions affect an effective vaccine production in trypanosomiasis? 4
d. How will you manage parasitic infestation in a dairy farm? 4

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2013
Course Title: Livestock Marketing (Theory)
Course Code: LMR-402 (T)
Full Marks: 70, Time: 3 Hours

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

Section-A

1. a. Distinguish between livestock market and livestock marketing. 3
b. What are the essential elements of a livestock market? 3
c. Discuss the importance of livestock marketing in our national economy. 5
2. a. What is meant by physical functions of marketing? 3
b. Distinguish between standardization and grading by using suitable example of livestock products. 5
c. Do you support adoption of grading system by the layer farmers in Bangladesh? Explain your arguments. 4
3. a. What is marketing research? State the importance of marketing research. 3
b. Briefly discuss the procedures for conducting marketing research. 6
c. Write the limitations of marketing research. 3
4. a. What is meant by marketing system? 2
b. Write the special features of raw hides and skins. 3
c. Briefly discuss the marketing system of hides and skins in context of Bangladesh. 7

Section-B

5. a. Define marketing channel. Write the elements of a marketing channel. 2
b. What factors govern the choice of marketing channels of livestock products? 4
c. How a trade channel is disrupted? 5
6. a. What is cooperative marketing? 2
b. Explain the problems in marketing of livestock. 4
c. Would you suggest adoption of cooperative marketing by the broiler farmers in Bangladesh? 6
7. a. Define marketing approach. 2
b. Discuss the commonly used marketing approaches for the marketing of livestock products. 7
c. Why marketing is treated as the delivery of standard of living. 3
8. Write short notes: (any three) 4 x 3 = 12
 - a. Marketing margin
 - b. Marketing MIX
 - c. Marketing management
 - d. Market promotion

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(Figures in the right margin indicate full marks. Answer **three (3)** questions from each section, where question **no. 5** is compulsory. Use separate answer scripts for each section.)

Section-A

1. a. Differentiate zoo Medicine from wildlife Medicine. 3
b. Write down the scope of zoo Veterinarians in Bangladesh. 3
c. Briefly describe different restraining methods used in zoos and Safari parks in Bangladesh. 3
2. a. Describe the clinical signs, post-mortem lesions, treatment and control of Salmonellosis in Juvenile Kangaroo. 3
b. Write down the etiology, clinical signs, postmortem lesions, treatment of Tyzzer's disease in weaning rabbit. 3
c. Write short note on Nipah virus infection by fruit bat in the world. 3
3. a. What do you understand by the term Mycobacterium Avian Complex (MAC) in Tapir? Describe its clinical signs, post-mortem lesions, diagnosis and treatment. 26
b. How will you prevent zoo birds from avian influenza? 3
4. a. List the chemical used as immobilizing agents with their dose, route and antidote for zoo and wild animals. 5
b. Write down the etiology, symptoms clinical findings, diagnosis and treatment of pyometra in a Gaur. 4

Section-B

5. a. Name two important viral diseases of pheasant in which pathognomonic post-mortem lesion is hepatomegaly. How would you differentiate them? 4
b. Write down the etiology, clinical signs, post-mortem lesions and treatment of Chlamydophillosis in Myna. 3
c. How will you treat a Royal Bengal Tiger suffering from Feline Panlenkopenia at Dulhazara Safari park, Chokoria, Cox's Bazaar? 3
6. a. Mention the etiology, clinical findings, post-mortem lesions of bacterial enteritis in Gorilla. 3
b. How will you reduce the incidence of cannibalism in crocodiles at Reptiles Farm Valuka, Mymensingh? 3
c. How will you administer subcutaneous (s/c) and intra-muscular (i/m) injection to a snake? 3
7. a. Briefly describe the etiology, clinical findings, post-mortem lesions, diagnosis and treatment of Johne's disease in Giraffe. 4
b. How will you control and prevent big-head disease in hare/rabbit? 2
c. Describe the mode of transmission and clinical findings of gray patch disease in green sea Turtle. 3
8. Write down the prescriptions of the followings (any six) : 1.5×6=9
 - a. A Lion of 120 kg body wt suffering from ascariasis
 - b. An Ostrich of 50 kg body wt suffering from malnutritional roup
 - c. A Zebra of 350 kg body wt suffering from glanders
 - d. A five year old Camel of 400 kg body wt suffering from pox
 - e. A Rabbit of 300g body wt suffering from snuffles
 - f. A Goose of 2 kg body wt suffering from mycoplasmosis
 - g. A Parakeet of 100g body wt suffering from chlamydophillosis
 - h. A Tiger of 100 kg body wt suffering from feline pnemonities

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2013
Course Title: Animal Breeding -II (Theory)
Course Code: ABR- 402 (T)
Full Marks: 55, Time: 3 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 scripts for each section.)

Section-A

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|----|----|--|---|
| 1. | a. | What is biotechnology? Mention the different biotechnological approaches used in livestock industry. | 4 |
| | b. | Write down the importance of biotechnology in animal improvement. | 3 |
| | c. | What is sex selection? Write down the importance of sex selection in animal breeding. | 3 |
| 2. | a. | How will you preserve bull semen for long term use? Write the advantages of frozen semen. | 3 |
| | b. | Write in details semen preservation procedure in liquid N ₂ . | 6 |
| 3. | a. | What is genetic engineering? Write down the principles of genetic engineering. | 3 |
| | b. | Describe the procedure of transgenic animal production. | 6 |
| 4. | a. | What is a primer? Describe in brief the reaction steps in PCR. | 5 |
| | b. | Describe the procedure of embryo sexing with its limitations. | 4 |

Section-B

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|----|----|--|-------|
| 5. | a. | What is embryo transfer? Write the objectives for embryo transfer in cow. | 3 |
| | b. | Write in details the steps for embryo transfer in cow. | 6 |
| 6. | a. | What is estrus? Write down the timing guide for insemination of cow in a tubular form. | 3 |
| | b. | Write down the semen deposition site, semen volume and number of motile sperm for the cow, Doe, Sow, and Mare. | 3 |
| | c. | Write down the impact of MOET in animal improvement. | 3 |
| 7. | a. | Define in vitro fertilization (IVF). Write down the application of IVF. | 4 |
| | b. | Describe the steps of IVE for cow. | 5 |
| 8. | | Write short notes on any 3 (three). | 3×3=9 |
| | a. | Semen extender | |
| | b. | DNA sequencing | |
| | c. | Super Ovulation | |
| | d. | Genetically modified organism (GMO) | |

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2013
Course Title: Metabolic Diseases (Theory)
Course Code: MTD-402 (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 & 5** are compulsory. Use separate answer scripts for each section.)

Section-A

1. a. What is complete metabolic profile test? How do you differentiate metabolic disease from production diseases? 2
- b. Write down the synonyms of parturient paresis. How do you differentiate it from downer's cow syndrome? 4
- c. A dairy cattle of about 400kg body weight brought to SAQTVH with a history of recent parturition, unable to stand. After delivery the animal was normally walked and took straw. But after complete expulsion of colostrum milk, animal was unable to stand up and kept her head on the flank region. What is your diagnosis? Prescribe the treatment of it. 5

2. a. What is Ketosis? How it developed in lactating cow? 2
- b. Briefly describe the clinical findings, laboratory diagnosis and line of treatment of hypoglycemia in dairy cattle. 5
- c. A Jamunapari Doe of 60 kg body weight brought to SAQTVH with a history of late pregnancy. The Doe was unable to walk and eat. After examination it was found sub-normal body temperature. What is your diagnosis? Prescribe the treatment of it. 5

3. a. Enlist the animal factors should be considered to diagnose the metabolic diseases. Which tests should be performed to diagnose metabolic disease? 4
- b. How do you differentiate grass tetany from tetanus? 2
- c. How will you diagnose and treat a case of hypomagnesemic tetany in a bull? 4
- d. Mention the name of precursors of carbohydrate (CHO) digestion in ruminants. Cite the name of anti-ketogenic VFA in CHO digestion. 2

4. Give the line of treatment of the following (any four): 4×3=12
 - a. Rickets in puppy
 - b. Night blindness of calf
 - c. Curled toe paralysis in chick
 - d. Exudative diathesis in broiler
 - e. Urea poisoning in bullock.

Section-B

5. a. What is vitamin-B complex? What are the functions of it in animal and man. 3
- b. Briefly describe the etiology, clinical manifestations and line of treatment of "Polioencephalomalacia" (cerebrocortical necrosis) in feed lot calves. 8

6. a. What are trace minerals that affects immunity and growth of animals? 2
- b. Mention the principal pathologic and metabolic defects occur in animals due to deficiency of copper, zinc, selenium and ferrus. 6
- c. Briefly describe the diabetes mellitus in dog. 4

7. a. What are the metabolic and deficiency diseases you may observe in horses? Describe the cause, mechanism and treatment of bran disease in horse. 6
- b. Enlist the disease condition found in livestock and poultry due to deficiency of vitamin-E. Write down the clinical signs and treatment of white muscle disease affecting the weight bearing muscle in a calf. 6

8. Write short notes on any two of the followings: 6×2=12
 - a. An acute myoglobinuria in race horse
 - b. A parturient hemoglobinuria in lactating cattle
 - c. A white muscle disease in lamb

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2013
Course Title: Reproductive Diseases and Obstetrics (Theory)
Course Code: RDO-402
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any 5 (five) questions from each section. Use separate answer script for each section)

Section-A

1. a. Define hormone and classify the major hormones of reproduction. 2
b. Write down the clinical uses of PGF₂α, GnRH, oxytocin and oestradiol 17B with their trade names and dose rate in cows, goats and mares. 5
2. Briefly describe about breeding soundness examination of female cattle (cow). 7
3. a. Define maternal recognition of pregnancy. 2
b. Describe with sketch the development of conceptus from oögenesis to implantation. 5
4. a. What are the methods of estrus detection? Describe briefly how will you improve estrus detection rates in a farm? 4
b. Define retained placenta. How will you diagnose and manage this condition? 3
5. a. Classify gestation period with duration. Mention the gestation length in the cow, mare, ewe, buffalo and bitch. 2
b. Mention the extra-embryonic membranes of pre-attached embryo with their origin. Differentiate among placenta of cow, mare, bitch and non-human primates. 5
6. a. Differentiate between puberty & sexual maturity. 2
b. Write down the tabular form of the age of puberty, estrus cycle, time of ovulation & time of AI in cow, doe, ewe, dog & cat. 5

Section-B

7. a. A dairy cow having dystocia about 4 hours before and failure to delivery after applying mutation and traction. What types of operation perform on this case with their management? 5
b. Briefly describe carpal flexion posture. 2
8. a. Mention the normal and abnormal presentation, position and posture of a fetus in a cow. 2
b. Write down about the diagnosis and correction for the delivery of a fetus in a cow due to- 5
(i) Oblique ventro-vertical presentation.
(ii) Lateral deviation of herd
9. a. Describe the techniques of artificial insemination (AI) in a cow. 4
b. How will you evaluate semen for using artificial insemination? 3
10. Differentiate between semen borne and venereal diseases. How will you prevent and control the venereal and semen borne diseases in a dairy herd? 7
11. a. Define fertility and sterility. 1
b. Enlist the physiological and pathological condition of a cow, when the CL found in the ovary. How will you manage these pathological conditions? 6
12. Write short notes on any two of the followings :- 3.5×2 =7
i. Post-Partum involution
ii. Silent heat
iii. COD