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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
Course Title: Animal Biotechnology (Theory)
Course Code: ABT-402 (T)
Full Marks: 55; Time: 3 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 script for each section.

SECTION-A

1. a) What do you mean by the term "Animal Biotechnology"? Write down the scope of animal biotechnology for animal improvement. 5.0
b) Give a list of different sub-sector of gene technology and reproductive technology. 3.0
c) Indicate the objectives of Animal Biotechnology study. 2.0
2. a) What is Artificial insemination? Indicate how many cows can be inseminated from a Reference bull? 2.0
b) Mention the methods of semen collection. Which method is the best and why- describe it. 5.0
c) Write down the principles for frozen semen preservation. 2.0
3. a) What is MOET? Write down the advantages and disadvantages of MOET. 3.0
b) Write down the procedure of MOET in cow. 6.0
4. a) Distinguish between cloning and recombination. 2.0
b) Write down the procedure of cloning in sheep. 5.0
c) How embryonic stem cells are utilized for creating transgenic animals? 2.0

SECTION-B

5. a) What do you mean by IVF? Write down the advantages and disadvantages of IVF? 3.0
b) Describe the procedure of IVF with reference to cow. 6.0
6. a) What is sex selection? Indicate the merit of sex selection. 3.0
b) List the method of sexing of sperm and embryo. Describe any one of them with its limitation. 6.0
7. a) What is genetic engineering? Write down the application of genetic engineering in animal improvement. 5.0
b) Write down the importance of artificial insemination for dairy development in Bangladesh. 4.0
8. Write short notes on (any three) from the followings: 3×3=9
 - (a) Gelelectrophoresis
 - (b) Genotypically modified organism
 - (c) Semen preservation
 - (d) Cattle breeding policy in Bangladesh
 - (e) Bioinformatics

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
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 questions from each section of which question no. 1 is compulsory. Use separate answer script for each section.

SECTION-A

1.
 - a) Define extension and agricultural extension. 2.0
 - b) Enlist the principles of agricultural extension. 3.0
 - c) Extension is working in harmony with culture of the people-Justify the statement. 5.0

2.
 - a) State the objectives of the Department of Livestock Services (DLS) of Bangladesh. 3.0
 - b) Describe the management functions of an extension organization. 3.0
 - c) Illustrate the organizational chart of the Department of Livestock Services in Bangladesh. 3.0

3.
 - a) Define communication. 1.0
 - b) Explain the basic functions of communication. 4.0
 - c) Criticize the Berol's model of communication. 4.0

4.
 - a) What is leadership? 2.0
 - b) Describe the forms or styles of leadership. 3.0
 - c) Describe the importance of local leaders in livestock extension services. 4.0

SECTION-B

5.
 - a) Define learning. Enlist the elements of learning process. 2.0
 - b) Choose the most important element of learning process and give reasons. 3.0
 - c) State the law of exercise with its implications in livestock extension work. 4.0

6.
 - a) Define extension programme and extension programme planning. 2.0
 - b) Discuss the steps of extension programme planning. 7.0

7.
 - a) Classify extension teaching methods based on use. 4.0
 - b) Differentiate between method demonstration and result demonstration. 5.0

8. Write short notes (any three) 3×3=9
 - (a) Technology transfer
 - (b) Personality development
 - (c) Monitoring and evaluation
 - (d) Dimensions of agricultural extension

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
Course Title: Veterinary Jurisprudence and Ethics (Theory)
Course Code: VJE-402 (T)
Full Marks: 35; Time: 2 Hours

(Figures in the right margin indicate full marks. **Answer any two questions** from each section where **Question no. One (1)** is compulsory. Fractions of the questions must be answered together. Use separate answer script for each section.)

Section-A

1. a) Define law, Act and Ordinance in the light of Veterinary Forensic Medicine and Jurisprudence? 3.0
b) Write down the aims and scope of veterinary Forensic medicine and Jurisprudence. 2.0
c) What is veterinary Ethics? Illustrate the Ethics that should be maintained by a veterinarian. 1+2=3
2. a) Describe common offences against animals. 5.0
b) How can you accuse a human in a case of bestiality? 2.0
c) What are the veterinary legislations available in Bangladesh? 2.0
3. a) In Bangladesh which animals should be brought under insurance policy and why. 3.0
b) How can you identify animals died due to drowning and lightning electrocution? 6.0

Section-B

4. a) Name the common frauds in the sale of livestock and livestock products. 2.0
b) Write down a health certificate for a dog intended to be taken for a foreign trip. 4.0
c) Name the methods for adulteration of milk used as frauds in the sale of milk? How will you diagnose the adulterated milk? 3.0
5. a) Outline the constraints of establishing legislations against animals and their diseases in Bangladesh? 3.0
b) What is the penalty if any person contravenes any provisions of "Bangladesh animal Diseases Act 2005"? 2.0
c) Two dogs have been admitted in the CVASU Teaching veterinary Hospital where one dog has history of gunshot wound and the other one has stabbed wound. How will you differentiate between them? 4.0
6. Write short notes: 3×3=9
 - (a) Criminal courts
 - (b) Evidence and witness
 - (c) Veterolegal report writing

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
Course Title: Large Animal Medicine-II (Theory)
Course Code: LAM-402 (T)
Full Marks: 70; Time: 3 Hours

Figures in the right margin indicate full marks. Answer any three questions from each section.
Question 1 and 5 are compulsory. Use separate answer script for each section.

SECTION-A

1. a) Write down the epidemiology and clinical signs of coccidiosis in calf. 3.0
b) Briefly describe the treatment of dermatophytosis in calves. 3.0
c) What do you mean by summer sore in equine? Describe the clinical signs diagnosis and treatment of summer sore in equine. 5.0
2. a) What are the samples you will collect for laboratory diagnosis of CBPP? 2.0
b) Explain details about diagnosis of CBPP. 5.0
c) Write down the line of treatment of deg-nala disease. 5.0
3. a) What do you mean by polyarthritis? How will you treat a case of bovine kerato conjunctivitis of seven days duration? 3.0
b) How mycoplasmal mastitis is transmitted in dairy farms? 2.0
c) Discuss the zoonotic risks of Q-fever in human. 3.0
d) How will you diagnose and control of cutaneous myiasis in cattle? Write down the effect and control strategies of tick infestation. 4.0
4. a) Name the important intestinal parasites. Describe the line of treatment of intestinal parasitic infestation in bovine. 6.0
b) Write down the treatment of rhinosporidiosis in buffaloes. 2.0
c) What are the effects of lice infestation in cattle? 2.0
d) How will you diagnose anaplasmosis in cattle? 2.0

SECTION-B

5. a) Discuss your drugs of choice against different stages of fascioliasis. 4.0
b) What do you know about vaccination against helminth parasites? 3.0
c) Mention the identifying characteristics of four helminth parasites egg with pictures. 4.0
6. a) How the juvenile amphistomes are pathogenic? 2.0
b) Mention the line of treatment of paramphistomiasis in buffalo. 3.0
c) What are the parasitic diseases can be diagnosed by rectal palpation? 1.0
d) Discuss nasal schistosomiasis. 4.0
e) Mention the clinical significance of stomach bot infestation in horse. 2.0
7. a) Describe the procedure of babesia diagnosis in cattle by Giemsa's stain in dourine in horse. 4.0
b) Discuss the phases of clinical signs in dourine in horse. 4.0
c) Mention some anthelmintics with their generic names and doses in nematode and trematode infestation in ruminant. 4.0
8. Mention the line of treatment (any three) of the following diseases- 4×3=12
 - i) Giardiasis
 - ii) Habronemiasis
 - iii) Ascariasis in buffalo calves
 - iv) Moneziasis in calves

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
Course Title: Veterinary Public Health (Zoonosis and Food Hygiene)
Course Code: VPH-402 (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) What is synanthropic and exanthropic zoonoses? 2
b) List important bacterial and viral zoonotic diseases. 2
c) What will you do to control avian influenza in poultry farms? 3
2. Define the following terms:
a) D-value, Z value, thermal death time and thermal death point. 4
b) Write down the properties of an ideal antimicrobial preservative. 3
3. a) What are the principles of food preservation? 3
b) Write down the factors affecting the heat resistance of microorganisms in food? 4
4. a) Describe biological causes of spoilage of canned food. 5
b) Which factors determine the efficiency of milk pasteurization? 2
5. a) Define food borne disease outbreak and classify food borne illness. 4
b) Differentiate food infection from food intoxication. 3
6. Sketch the source of contamination and critical control point before and after milk processing unit. 7

SECTION-B

7. a) Define one health and veterinary public health. As a veterinarian how can you help to solve public health problems? 4
b) What is spillover zoonosis? Classify zoonoses based on direction of transmission, evolution and ecosystem. 3
8. a) Write down the importance of pre-slaughter practices. 3
b) Give an outline of an abattoir. 4
9. a) Define BOD and BOD₅₀. 1
b) Mention the significance of ante-mortem inspection of food animals. 2
c) Mention your judgment with cause(s) after diagnosis of animals having following diseases: 4
i.) Bird flu ii) Tuberculosis iii. FMD iv. coligranuloma
10. a) Transport stress has a major effect on the meat quality of animal- explain in relation to PSC and DFD. 5
b) What are the principles of slaughtering of animals for food? 2
11. a) Enlist gas forming bacteria and lactic acid forming bacteria in food. 3
b) Discuss about the preservation and spoilage of meat. 4
12. a) Natural inhibitory substances of food play an important role to prevent food spoilage- explain it with example. 4
b) What are the techniques used for high temperature food preservation? Write down the procedure of canning. 3

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
Course Title: Theriogenology (Theory)
Course Code: THL-402 (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) Mention the name of hormone originated from ovary and hypothalamus 3.0
b) Define the therapeutic uses of the following hormones 4.0
i) PGF₂ α ii) GnRH iii) Oxytocin iv) Cortisol
2. a) Briefly describe the breeding soundness evaluation of female cattle. 5.0
b) Mention the criteria of puberty. Write down the age at puberty of the following animal: cattle, sheep, goat and dog. 2.0
3. a) How will you measure the fertility of a dairy herd? 2.0
b) Write down the line of treatment and management of the following problems 2.5x2= 5.0
i) Subclinical endometritis in a cow
ii) Anoestrus in a cow
4. a) A 300kg multiparous dairy cow admitted at SAQTVH with the history of anoestrus that was bred about 3 months back. What might be your possible diagnosis? How will you proceed to diagnose this condition? Describe briefly. 4.0
b) A 4 years aged Jamunapari goat registered at SAQTVH with the history of over gestation period (>160 days) have no signs of parturition. What might be your possible diagnosis? How will you treat this condition? Describe briefly. 3.0
5. a) How will you understand a cow attempt to parturition describe briefly. 2.0
b) Sketch out the events occurred during parturition normally. 5.0
6. Write short notes on any two of the followings 3.5x2= 7.0
i) Silent heat
ii) Method of oestrus detection
iii) Abortion in a goat

SECTION-B

7. a) Mention the quality of semen for AI in a cow. How will you thaw frozen semen for AI? 3.0
b) Name the methods of AI. Describe the procedure of AI in a cow. 4.0
8. a) Enumerate the causes of dystocia. 3.0
b) How will you manage any types of dystocia in a cow? Describe briefly 4.0
9. Write down the treatment and management of the following obstetrical cases 3.5x2= 7.0
i) Retained placenta in a cow
ii) Uterine prolapse in a cow
iii) Mastitis in a cow
10. a) Write down the site of incision and anesthetic protocols for cesarean section in cow, goat and dog. Briefly describe the procedure of C-section in a cow. 4.0
b) Describe the danger of post partum period. 3.0
11. a) Describe the factors influencing post partum involution in a cow. 3.0
b) Mention the duration of the following in cow and goat- 4.0
i) Oestrus ii) Ovulation iii) Gestation period iv) AI time
12. Write short notes on any two of the followings. 3.5x2= 7.0
i) Certification of a bull for breeding soundness evaluation
ii) Semen born diseases
iii) Post partum involution

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
Course Title: Hides, Skins and Wool Technology (Theory)
Course Code: HWT-402 (T)
Full Marks: 55; Time: 3 Hours

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Figures in the right margin indicate full marks. Answer three questions from each section of which question no. 5 is compulsory. Use separate answer script for each section.

SECTION-A

1. a) Write down the economic importance of hides and skins production in Bangladesh. 2.0
b) Mention the biological functions of hides and skins. What are the different reasons for the putrefaction of raw hides and skins? 3.0
c) Give a policy how to protect the environmental pollution by tannery waste and dirt produced by animal slaughtering during Eid-ul Azha. 4.0
2. a) Briefly describe about different damages and defects found in hide or skin during live and after slaughtering the animal. 2.0
b) Mention the name of different tools and equipments of flaying. Shortly describe about the flaying of small ruminants. 3.0
c) Write down the name of different animal and bird species which hides and skins are tanned regularly or occasionally in different parts of the world. 4.0
3. a) Define curing. Write down the name of bacteria and mould which are responsible for the putrefaction of raw hides and skins. 2.0
b) Compare between khari salt and denatured salt. Describe dry salting with khari salt. 3.0
c) Shortly describe about the different process of curing of hides and skins. 4.0
4. a) What are the different types of proteins and non-protein substances found in raw hide or skin? Describe shortly. 2.0
b) Compare microscopically between wool sheep skin and hair sheep skin. 3.0
c) Define tensile strength. Briefly describe why and how physical properties are important for measure the quality of a finished leather? 4.0

SECTION-B

5. a) Define following terms (any ten) 10×1=10
(i) Bating (ii) Pickling (iii) Soaking
(iv) Woolen (v) Virgin wool (vi) Leather
(vii) Putrefaction (viii) Gouges (ix) Upholstery leather
(x) Shrinkage (xi) Clip
6. a) Mention the role of you as a vet to improve the quality of hides and skins of Bangladesh contributing as a national income. 2.0
b) State shortly about the effluent treatment plant (ETP) that you have visited at Riff leather Ltd, kalurghat, Chittagong. Mention the importance of ETP considering public health concern. 3.0
c) Give a clear idea about the problems and prospects of tannery industries in Bangladesh based on your tannery tour. 4.0
7. a) Define wool compare with hair. Give a short detail about different types of cell layers of wool with their functions. 2.0
b) What are the different factors that affect the price of wool? 3.0
c) Write down the importance of sheep in Bangladesh. How can you improve the wool quality of our native breeds of sheep? 4.0
8. a) State shortly (any three): 3×3=9.0
(i) Grading system of wool.
(ii) Durability and felts naturally of wool fiber.
(iii) Impurities of wool.
(iv) Weaning, knitting or felting of wool manufacturing process.

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
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 questions from each section. Question 1 and 5 are compulsory. Use separate answer script for each section.

SECTION-A

1. a) What do you mean by Metabolic disease and production disease? 2.0
b) Criticize the method of outcome interpretation of Compton Metabolic Profile Test (CMPT). Predict the feasibility of CMPT at current field veterinary hospital condition of Bangladesh. 5.0
c) Write the pathogenesis of grass tetany in calf graze on latevite pasture. 4.0
2. a) Enlist the disease conditions produced in animals due to Ca and Mg deficiency. 3.0
b) Give the prescription of the following conditions- 9.0
 (i) Pregnancy toxemia in ewe of 30kg body weight.
 (ii) Hypomagnesemic tetany in a bull of 350kg body weight
 (iii) Diabetes Malitus in a bitch of 25kg body weight
3. a) Define the line of treatment of downer cow syndrome based on management and therapeutic option. 4.0
b) Outline the causes of impaired energy metabolism in ruminants. 4.0
c) Briefly describe how ketosis is developed in ruminants. 4.0
4. Write short notes on any two of the followings:- 6×2=12
 a) Pregnancy toxemia
 b) Rickets
 c) Allergic dermatitis

SECTION-B

5. a) Justify laminitis in feed lot cattle is a metabolic disease. 4.0
b) Explain the carbohydrate and fat metabolism in ruminants. 3.0
c) Integrates the clinical findings of equine exertional rhabdomyolysis with its pathophysiology. 4.0
6. a) In a commercial layer farm egg production is decreasing gradually and the sizes of eggs are also decreasing. What might be the causes and how you will manage this problem? 4.0
b) Mention the conditions produced in poultry due to deficiency of Vit E. Write down their clinical signs. 6.0
c) How you will diagnose and treat a case of nutritional roup in commercial layer birds? 2.0
7. a) What is cerebrocortical necrosis? Discuss the etiology and risk factors of cerebrocortical necrosis. 4.0
b) Identify the conditions that may develop due to the deficiency of copper in animal. 4.0
c) Write down the symptoms of Vit. B complex deficiency in animals. 4.0
8. Write short notes on any three of the followings:- 4×3=12
 i) Milk fever in a cow
 ii) Ruminant acidosis
 iii) Low milk fat syndrome in cow
 iv) Hypoproteinemic anemia in a calf
 v) Peap scour

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
Course Title: Zoo and Lab Animal Medicine (Theory)
Course Code: ZAM-402 (T)
Full Marks: 55; Time: 3 Hours

(Figures in the right margin indicate full marks. Answer any three questions from each section where Question no. Five (5) is compulsory. Fractions of the questions must be answered together. Use separate answer script for each section.)

Section-A

1. a) Define wild life Sanctuary, Zoo and Safari Park with examples. 2.0
b) Enlist and define the categories for classification of wild life according to IUCN. 3.0
c) Write down the role of field vets for the conservation of wild life in Bangladesh. 4.0
2. a) Enlist five infectious diseases of spotted deer. 1.0
b) Write down etiology, clinical findings, diagnosis, treatment and control of tuberculosis in spotted deer in national zoos in Bangladesh. 4.0
c) Enlist five important zoonotic diseases in human wildlife interface in Bangobondhu Safari park, Gazipur and how will you prevent transmission of zoonotic diseases in Safari Park both in human and animal. 4.0
3. a) Mention the generation period, weaning period, litter size, average birth weight and life span of Royal Bengal Tiger, Asiatic Elephant, African Lion, Asiatic Black bear, Giraffe, Zebra and spotted deer in captivity. 6.0
b) Write down the clinical signs, diagnosis, and line of treatment of strangle in Zebra. 3.0
4. a) How will you differentiate crocodile from ghorial? 1.0
b) What are the methods used to restrain reptiles and describe the chemical method of restraining for reptiles. 1.5
c) Enlist common bacterial, viral and fungal diseases of reptiles? Write down the clinical findings and line of treatment of dermatitis and amoebiasis in python. 3.0
d) Enlist common viral and parasitic diseases of feline. Write down clinical sign, diagnosis, treatment and prevention of feline panleukopenia in captive tigers. 3.5

Section-B

5. a) Mention the etiology, transmission, clinical signs, postmortem findings, diagnosis, treatment and prevention of listeriosis in Royal Bengal Tiger at National Zoo, Dhaka. 4.0
b) Prescribe the following diseases 1.5×4=6
(i) Ear cancer in 1.5kg body wt. rabbit
(ii) FMD in a 100 body wt. sambar deer
(iii) Mycoplasmosis in a 2 kg body wt. goose
(iv) Myiasis in a 200kg body wt. tigress
6. a) What is musth? How will you restrain an excited elephant at the time of musth at Bangobondhu Shekh Mujibur Rahman Safari Park Dulahazra, Cox's Bazar. 3.0
b) What do you mean by the term "Mycobacterium Avium complex (MAC)" in tapir? 2.0
c) Describe its clinical signs, postmortem findings, diagnosis and treatment in tapir. 4.0
7. a) Write down the etiology, clinical signs, treatment and control of lumpy jam in Kangaroo. 5.0
b) Explain the term "EIDs" and discuss the role of wild life veterinarians in prevention of "EIDs" in South Asian region. 4.0
8. a) Enlist the important bacterial disease of primates. 1.0
b) Write down the etiology, clinical findings, diagnosis, treatment and control measures against anthrax in elephants. 5.0
c) Describe the etiology, clinical signs and treatment of salmon poisoning in foxes. 3.0

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination-2016
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 any three questions from each section where Question No. 1 and 5 are compulsory. Use separate answer script for each section.)

SECTION-A

1. a) "Marketing is a process by which companies create value for customers and build strong customer relationships to capture value from customers in return"- Explain it with examples. 3.0
 b) Identify and give examples of Utilities. 4.0
 c) Give examples of Need, want and Demand. Name the Livestock products available in Bangladesh. 3+1=4

2. a) Suppose you are working for Marketing of Bengal Meat's "Beef". Develop a chain to distribute your products to your customers. 4.0
 b) Identify the functions of Marketing. 4.0
 c) Does Marketing add value? Justify your answer. 4.0

3. a) What is marketing management? 2.0
 b) What do you know about cost and efficiency of marketing? 5.0
 c) Differentiate wholesaling and retailing with distinctive characteristics. 5.0

4. a) Identify 4 pillars of Marketing concept. 4.0
 b) "As an entrepreneur we only need to be production focused. Market Focus is less important as higher production is the key success". Do you agree? Justify your answer. 4.0
 c) "Customer is the king in the kingdom of Marketing"- Do you agree. Justify your answer. 4.0

SECTION-B

5. a) Define Market. Classify market with examples. 4.0
 b) Show the reasons for the increase of the demand of the Livestock products. 3.0
 c) Show the importance of Livestock Products in context of Bangladesh. 4.0

6. Suppose you are thinking of starting a Turkey Farm in Rangamati Sadar. Based on this case-
 a) Show how Economic and Natural Environment impact in your business? 4.0
 b) Predict two opportunities and two threats in the external environment. 4.0
 c) Propose some ideas to create value for your product. 4.0

7. a) What do you mean by co-operative marketing? Discuss the benefits of co-operative marketing system. 4.0
 b) Discuss about standardization and grading system of milk and milk products. 4.0
 c) Explain the process of milk sampling and patterns of milk processing. 4.0

8. a) Show the Marketing Process. 4.0
 b) Show the Marketing Channel of Hides and Skins prevailing in Bangladesh? 4.0
 c) Explain SWOT Analysis with a hypothetical example in the field of livestock marketing. 4.0