

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2012
Course Title: Veterinary Jurisprudence (Theory)
Course Code: VJR-402
Full Marks: 35, Time: 2 Hours

(Figures in the right margin indicate full marks. Answer 2 (two) questions from each section of which Question No. 4 is compulsory. Use separate answer script for each section)

Section-A

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|----|---|---|
| 1. | a) Define ethics. Note down some important points regarding veterinary ethics. | 5 |
| | b) Write down the common frauds practicing in the sales of meat and ghee. | 4 |
| 2. | a) What is veterinary forensic medicine? Write down the selected values in veterinary medicine. | 5 |
| | b) Define animal welfare? Write down the oath of a Veterinarian. | 4 |
| 3. | a) Write down the format of health certificate of animal or bird export? | 4 |
| | b) Write in brief "The Bangladesh Veterinary Council Regulations-1985" | 5 |

Section-B

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|----|--|-------|
| 4. | a) Define Veterinary Jurisprudence. Why Veterinary Jurisprudence is studied in veterinary science? | 4 |
| | b) What is law and court? Name the Acts and Ordinances existing in Bangladesh related to Veterinary Jurisprudence. | 4 |
| 5. | a) Define veterolegal aspects of wound and death. Write a format of wound certificate. | 4 |
| | b) How can you identify ante-mortem and post-mortem wound? What are the changes in an animal after death? | 5 |
| 6. | Write short notes on any three: | 3×3=9 |
| | a) Common offences against animals. | |
| | b) Livestock and livestock products "Quarantine Act-2005" | |
| | c) Pet animal registration. | |
| | d) Euthanasia | |

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination 2012
Course Title: Hides, Skins and Wool Technology
Course Code: HWT - 402
Full Marks: 55, Time: 3 Hours

402



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

Section-A

- | | | |
|---|---|----|
| 1 | a. Briefly discuss the chemical composition of Hides and Skins. | 05 |
| | b. Write down the damage and defects of Hides and Skins. | 04 |
| 2 | a. Draw and label the anatomical structure of a cow hide. | 04 |
| | b. Briefly discuss the various steps of tanning to produce finished leather. | 05 |
| 3 | a. Write down the different grades of wool according to type, length and color. | 04 |
| | b. Briefly describe the factors affecting price of wool. | 05 |
| 4 | a. Briefly discuss the characteristics of wool fiber that validate the quality of wool. | 05 |
| | b. What do you mean by the following terms: | 04 |
| | i. Crimp, ii. Kemp, | |
| | iii. Flay cuts, and iv. Brining | |

Section-B

- | | | |
|---|--|---------|
| 5 | a. Briefly discuss the factors affecting the quality of Hides and Skins. | 05 |
| | b. Define the following terms: | 05 |
| | i. Burry wool, ii. Fleece, iii. Butt, | |
| | iv. Fallen hide, and v. Apparel wool | |
| 6 | a. What is staple length of wool? How could you measure it? | 04 |
| | b. Shortly discuss the history of wool production. | 05 |
| 7 | a. Describe different types of impurities of wool fibers. | 05 |
| | b. Draw and label the morphological structure of a completely developed wool fiber. | 04 |
| 8 | Write short notes on any three from the following: | 3x3= 09 |
| | i. Country hide, ii. Meating and Fleshing, iii. Blood and Noils, | |
| | iv. Components of wool fiber, v. Prospects of leather industry in Bangladesh | |

402

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2012
Course Title: Reproductive Diseases and Obstetrics (Theory)
Course Code: 402 (T)
Full Marks: 70, Time: 3 Hours

Figures in the right margin indicate full marks. Answer any 5 (five) questions from each section of which question no 1 (one) is compulsory. Use separate answer script for each section.

Section-A

- | | | |
|----|---|-----------|
| 1 | a. Define theriogenology and obstetrics. | 02 |
| | b. How will you diagnose different stages of pregnancy in cow? | 05 |
| 2 | a. How will you terminate un-wanted pregnancy with their mechanism? | 03 |
| | b. Briefly describe the control breeding system in a large size herd. | 04 |
| 3 | Describe the methods of pregnancy diagnosis in cow. How will you confirm pregnancy at 60-90, 120-150 and 270-280 days of gestation by rectal palpation? | 07 |
| 4 | a. Mention the signs of approaching parturition in cow. Describe the stages of parturition of cow. | 04 |
| | b. Sketch the hormonal mechanism of parturition. | 03 |
| 5 | Discuss any two of the followings: | 3.5x2= 07 |
| | a. Retain placenta. | |
| | b. Caesarean operation in a doe. | |
| | c. Utero-vaginal prolapse in cow. | |
| 6. | a. Define spermiation. | 01 |
| | b. If you want to purchase a bull for breeding purpose, how will you select this bull? Describe in brief. | 06 |

Section-B

- | | | |
|----|---|-----------|
| 7 | a. Define estrus cycle. | 01 |
| | b. Mention some important changes of the reproductive tract of a cow during estrus cycle. | 03 |
| | c. Enumerate the hormonal level changes in blood during estrus cycle. | 03 |
| 8 | a. Define dystocia. | 01 |
| | b. Enumerate the case of dystocia. | 02 |
| | c. Briefly describe the general obstetrical management of dystocia case in a cow. | 04 |
| 9 | Write down the treatment and management of the following diseases: | 07 |
| | a. Puerperal metritis in a cow. | |
| | b. Uterine prolapse in a cow. | |
| | c. Incomplete dilatation of cervix in a goat. | |
| | d. Post partum hemorrhage. | |
| 10 | How will you differentiate the following conditions with their management: (any two) | 3.5x2= 07 |
| | a. Pyometra and pregnancy. | |
| | b. Subclinical endometritis and endometritis. | |
| | c. Incomplete dilatation of cervix and uterine inertia. | |

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2012
Course Title: Animal Breeding-II
Course Code: ABR-402
Full Marks: 55, Time: 3 Hours

Figures in the right margin indicate full marks. Answer any 3 (three) questions from each section of which question no 1 is compulsory. Use separate answer script for each section.

Section-A

- | | | |
|---|--|---|
| 1 | a. What is inbreeding? Write a short note on inbreeding co-efficient. | 3 |
| | b. How will you develop an inbred line of poultry in Bangladesh? | 5 |
| | c. Is inbreeding always bad? Justify your statement. | 2 |
| 2 | a. Briefly describe about open nucleus breeding system. | 5 |
| | b. What is the difference between crossbreeding and upgrading? How will you develop our indigenous cattle for dairy purpose? | 4 |
| 3 | a. Define biotechnology. Describe the importance of biotechnology in animal improvement. | 4 |
| | b. Write down the procedure of estrus synchronization in cow. | 5 |
| 4 | a. What do you mean by the system heterosis? | 2 |
| | b. What are the different systems of breeding that are used for livestock improvement? | 3 |
| | c. Briefly describe the reasons for crossbreeding to get heterosis. | 4 |

Section-B

- | | | |
|---|---|--------|
| 5 | a. How will you prove that all line breeding is inbreeding but all inbreeding is not line breeding? | 4 |
| | b. Write a short note on combining ability. | 5 |
| 6 | a. What do you mean by "Artificial Insemination"? | 2 |
| | b. What are merits of AI over natural insemination? | 2 |
| | c. What are the different types extenders used for semen dilution of bulls? How can you go for semen dilution using egg-yolk citrate? | 5 |
| 7 | a. What do you mean by In Vitro Fertilization (IVF)? Write down the factors affect on IVF. | 3 |
| | b. Write down the procedure of IVF for cow. | 6 |
| 8 | Write short notes on (any three) | 3X3= 9 |
| | a. Species hybridization | |
| | b. Record keeping | |
| | c. Cross breeding in dairy cattle | |
| | d. MOET | |

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2012
Course Title: Veterinary Public Health (Theory)
Course Code: VPH-402
Full Marks: 70, Time: 3 Hours

Figures in the right margin indicate full marks. Answer any 3 (three) questions from each section of which question no. 1 and 5 are compulsory. Use separate answer script for each section.

Section-A

1. a) Define veterinary public health. What are the principal functions of a public health veterinarian? 6
 b) How will you classify different people into occupational and societal groups depending on risk of zoonoses? 5

2. a) What are the principles for planning an abattoir? What are the considerations to be taken for designing of an abattoir? 6
 b) What are the objectives of ante-mortem inspection? Describe the methods that you have follow at an ante- mortem inspection of cattle. 6

3. a) What are the chief treatments given to the animals prior to slaughter? 4
 b) Define meat hygiene. Write down the tasks of meat hygiene. 4
 c) Write down the problems of meat hygiene practice in Bangladesh. 4

4. a) Define HACCP, enlist seven principles of HACCP 5
 b) Define following terms in relation to meat hygiene –(i) DFD (ii) PSE (iii) Marbling 3
 c) Describe different types of aerobic spoilage of meat 4

Section-B

5. a) Enlist ten groups of bacteria with examples in food microbiology 5
 b) What are the intrinsic parameters of food that dictates microbial growth 3
 c) How can you define water activity (a_w) of a food, and what are the possible ways to decrease its value in food? 3

6. a) What are the basic causes of food spoilage? Write down the principles of food preservation. 4
 b) Describe briefly the contamination, spoilage and preservation of milk and milk products. 8

7. a) Briefly describe the factors influencing the microbial activity in foods. 7
 b) Name at least five molds which are industrially important and their mode of actions. 5

8. a) Write short notes on any four (4) 3X4=12
 b) i) D value ii) Z value iii) Pasteurization iv) Appertization v) Food additive
 vi) Curing of meat

402

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2012
Course Title: Agricultural Extension (Theory)
Course Code: AEX-402
Full Marks: 55, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer 3 (**three**) questions from each section of which Question No. 1 is compulsory. Use separate answer script for each section)

Section-A

1. a) Explain the terms of Extension and Agricultural Extension. 3
b) State the objectives of extension education. 3
c) Extension is a non formal type of education - Justify your answer. 4
2. a) Define learning. In livestock services- 4
i. Who is the teacher? ii. Who are his/her students? iii. What is the syllabus? and iv. Where is the class-room?
b) Briefly describe the 'laws of desire' and 'laws of exercise' showing their implications in livestock services. 5
3. a) Define mass media. Describe the importance of teaching method in Bangladesh. 4
b) State the purpose, advantages and limitations of radio, poster and leaflet. 5
4. What is an adopter category? Mention the features of two adopter categories which you think important in extension activities? 9

Section-B

5. a) State the importance of leadership in extension work. 4
b) How do you identify the local leaders for livestock extension work? 5
6. a) What is meant by innovation? State the different types of innovation with examples. 4
b) Write down the importance of motivation in extension services. 5
7. a) What do you mean by 'extension programme' and 'extension programme planning'? 3
b) Briefly describe the steps of extension programme planning. 6
8. Write short notes on the following (any three) 3×3=9
i. Features of participatory approaches
ii. Method demonstration
iii. Farm and Home visit
iv. Opinion leadership.

402

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination 2012
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 3 (three) questions from each section of which question no 5 (five) is compulsory. Use separate answer script for each section.

Section-A

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|---|--|------|
| 1 | a. Enlisted the Zoo's and Safari Parks (both government and private sector) in Bangladesh. | 01 |
| | b. Write down the scope of Zoo veterinarian in Bangladesh. | 02 |
| | c. What are the roles of field veterinarian for conservation of endangered wildlife in Bangladesh? | 03 |
| | d. Briefly describe the different restraining methods used in Zoo's and Safari Parks in Bangladesh. | 03 |
| 2 | a. Mention the name of upper respiratory tract diseases of the Royal Bengal Tiger. Write down the etiology, route of infection, clinical signs, diagnosis and treatment of feline Pneumonitis of the Royal Bengal Tiger. | 04 3 |
| | b. Write down the etiology, clinical signs, treatment, prevention and control of Pox in Asian Elephant. (<i>Elephant maximus</i>) | 05 3 |
| | c. Describe the etiology, clinical signs and treatment of salmon poisoning in fox. | 3 |
| 3 | a. What is Kikuth's disease? Write down its etiology, clinical signs, diagnosis, treatment and control with economic impact. | 03 |
| | b. Describe the etiology, clinical findings, treatment and control of Pouch infection in Koala. | 03 |
| | c. Describe the transmission, symptoms and prevention of Hepatitis- A in non-human primates with zoonotic significance. | 03 |
| 4 | a. Briefly describe the etiology, transmission, clinical syndrome, zoonotic importance, treatment and control of tularamia in golden hamster. | 03 |
| | b. Write a brief note of "ear canker" in a Rabbit. | 03 |
| | c. Write down the important contribution of Zoo and Lab. Animal Medicine in relation with animal welfare. | 03 |

Section-B

- | | | |
|---|--|-----------|
| 5 | a. What do you mean by emerging and re-emerging diseases of Zoo animals? Enlisted 4 (four) emerging and re-emerging diseases of Zoo animals. | 04 |
| | b. Name the important diseases of Myna. | 01 |
| | c. Name 5 (five) feral birds. Write down the etiology, clinical signs, postmortem lesions, diagnosis, treatment, prevention and control of fowl cholera in feral birds. | 05 |
| 6 | a. Describe the etiology, transmission, clinical signs, treatment and prevention of equine influenza in Zebra. | 03 |
| | b. Write down the etiology, clinical signs and treatment of sarcoptic mange infestation in Lama. | 03 |
| | c. Write down the etiology, clinical signs and treatment of John's disease in Giraffe. | 03 |
| 7 | Write down the prescription of the following: (any six) | 1.5x6=9.0 |
| | a. A Hilly Myna of 150g body weight suffering from Pox. | |
| | b. An adult Red Kangaroo of 175kg body weight suffering from ear-mites infestation. | |
| | c. A male Turkey of 10kg body weight suffering from Mycoplasmosis. | |
| | d. A Rabbit of 1.5kg body weight is suffering from alopecia. | |
| | e. An Emu of 40 Kg body weight is suffering from nutritional roup. | |
| | f. A two week aged corn Snake of 1 kg body weight is suffering from intestinal coccidiosis. | |
| | g. An adult olive Beboon of 3 weeks aged having 9 kg body weight is suffering from shigellosis. | |
| | h. A barking deer of 60 kg body weight suffering from myiasis in external genitalia | |
| 8 | a. What is Musth? How will you restrain an excited elephant at the time of Musth in the Bangobandhu Safari Park, Gazipur? | 03 |
| | b. Write down the tabular form of four (4) bacterial diseases of spotted deer in captive condition along with etiology, clinical findings, transmission, prevention and control of those diseases. | 03 |
| | c. Describe briefly the etiology, clinical findings, diagnosis and treatment of hook worm infestation in black bear at Safari Park. | 03 |

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2012
Course Title: Livestock Marketing (Theory)
Course Code: LMR-402
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer 3 (**three**) questions from each section of which Question No. **1 and 5** are compulsory. Use separate answer script for each section)

SECTION-A

1. a) Who is wholesaler? Describe the functions of wholesalers. 5
b) Distinguish between wholesaling and retailing. 3
c) What are the problems of retailing of livestock products? 3
2. a) Distinguish between livestock market and livestock selling. Write the nature of livestock market in context of Bangladesh. 4
b) Briefly discuss the necessity of studying marketing as a student of veterinary medicine. 5
c) Is livestock marketing complex and costly? Justify your answer. 3
3. a) What do you mean by marketing function? 2
b) How would you classify marketing functions? 5
c) What are the facilitating functions of marketing? 5
4. a) Discuss the importance of storage in livestock product marketing? 6
b) What are the different forms of storage in livestock products marketing? Explain briefly. 6

SECTION-B

5. a) Define marketing cost. What factors affect the costs of marketing of livestock products? 4
b) What measures should be undertaken to increase the efficiency of livestock products marketing in Bangladesh? 5
c) Write the factors that increase the marketing margin? 2
6. a) What do you understand by price and pricing? 2
b) Briefly describe the methods for setting price of the products by a manufacturer. 6
c) State and discuss the effects of basing point price. 4
7. a) Distinguish between market participants and marketing intermediaries. 3
b) Classify marketing intermediaries on the basis of functions performed by them. 4
c) Do you consider middlemen as parasites in livestock marketing? Explain your arguments. 5
8. a) Define marketing system. 1
b) Briefly discuss the marketing system of fluid milk in Bangladesh. 7
c) Write the weaknesses of live cattle marketing system in Bangladesh. 4

402

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2012
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 3 (three) questions from each section of which question no 1 & 5 are compulsory. Use separate answer script for each section.

Section-A

- 1 a. What are the risk factors associated with myiasis in ruminants? 2
b. Describe different control strategies in tick infestation in large animals. 5
c. What are the clinical signs of pediculosis in horses? 2
d. Write down the prescription in a 500 kg bull suffering from sarcoptic mange. 2
- 2 a. Enlisted the rickettsial and hemoprotozoan diseases in cattle with their causal agents. 3
b. How can you differentiate babesiosis from anaplasmosis and post-partum hemoglobinuria? 3
c. Describe the predisposing factors of a babesiosis in farm animals. 3
d. Make a prescription of a red urine case of cattle having rectal temperature 104° F and enlargement of superficial lymph nodes. Presence of tick in the body coat was history of the patient. 3
- 3 a. What is the most important parasite cause of case fatality rate in buffalo calf? Why? 3
b. How can you differentiate clinically hemonchiosis from hook worm? 3
c. Name at least 5 (five) parasites that cause anasarca in small ruminants. 3
d. List the parasitic diseases causing anemia and bottle jaw in cattle. 3
- 4 a. What is parafilaria? Give the clinical signs and treatment of it. 3
b. How do you differentiate the features of eggs of fasciola, paramphistomum and schistosoma in ruminant in clinical case? 3
c. Describe *Tania saginata* infestation in cattle. 4
d. What are the clinical signs of lung worm infestation in a dairy herd? 2

Section-B

- 5 a. Mention 5 (five) anthelmintics with their generic name, trade name and doses in nematode infestation in ruminants. 4
b. Describe the clinical signs of schistosomiasis in bovine. Provide the treatment. 5
c. What is self cure phenomenon in hemonchiosis? 2
- 6 a. What are the etiological agents of dermatophytosis in large animals? 2
b. Describe the diagnosis and line of treatment of dermatophytosis in cattle. 5
c. What are the clinical signs of aspergillosis in horse? 3
d. Why Q-fever is zoonotically important in Veterinary Medicine? 2
- 7 a. What is bovine pleuropneumonia? How will you diagnose it clinically? 4
b. How will you differentiate mycoplasmal mastitis from other mastitis? 2
c. Write down the line of treatment of mycoplasmal kerato conjunctivitis and mastitis in bovine. 4
d. Write a note on coenurosis in goat. 2
- 8 a. What is nagana? Describe the pathogenesis of nagana in camels. 2
b. Write down the clinical signs of nagana in camel. How will you give a line of treatment of it? 4
c. What is dourine? Write down the clinical and epidemiological features of dourine in horse? 4
d. Give the line of treatment of verminous pneumonia. 2

Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2012
Course Title: Metabolic Diseases (Theory)
Course Code: MTD-402
Full Marks: 70, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer 3 (three) questions from each section of which Question No. 1 and 5 are compulsory. Use separate answer script for each section)

Section-A

1. a) Why parturient paresis affected only high yielding dairy cow? 2
 b) Write down the causes and risk factors that are prone to develop parturient paresis. Mention the common clinical manifestations and line of treatment of an acute milk fever. 6
 c) How do you differentiate milk fever as a recumbency disease with other recumbency diseases of lactating animals? 3

2. a) Describe the cause, epidemiology clinical findings and treatment of ketosis. 7
 b) Write a note on post-partum hemoglobinuria in lactating cattle. 3
 c) Write down the common sources of nitrate and nitrate poisoning. Provide the line of treatment of them. 2

3. a) Mention the synonyms of hypoglycemia, hypocalcemia, hypomagnesemia and rhabdomyolysis in animals. 2
 b) A dog of 30 kg body weight is suffering from frequent mixturation from a couple of days. After examination it was found the dry mouth, body temperature was normal but losing body weight. Give your diagnosis and line of treatment. 5
 c) A 5 year old race horse bearing body weight 450 kg running fast in race tract in last Saturday without any problem. On Sunday, animal was tacking full ration and sound, but during going out from stable for exercise in the field, the horse was reluctance to move. After examination, it was found that hind quarter was stiffed and color of urine also black-red color. What is your diagnosis and provide the line of treatment of it. 5

4. a) What is nutritional myopathy? How vitamin-E and selenium prevent it in growing animals? 3
 b) Write a brief note on auto-immune hemolytic anemia in a foal. 6
 c) How many volatile fatty acids (VFA) are produced in CHO digestion in ruminant? Mention which one is anti-ketogenic in nature. 3

Section-B

5. a) Classify vitamins. What are the roles of vitamin-A and E in animal reproduction? 2
 b) Briefly describe the etiology, clinical manifestations and line of treatment of polioencephalomalacia in feed lot calves. 6
 c) What are the causes of curled-toe paralysis, encephalopathy and exudative diathesis of chicks? Provide the treatment of them. 3

6. a) What is radiation injury? Mention the five common radioactive materials that cause biological injury in livestock from grasslands by environment pollution. 4
 b) What is high altitude disease of bovine? Write down the clinical manifestations and line of treatment. 4
 c) How do you differentiate hydrothorax from congestive heart failure? Provide the treatment of them. 4

7. a) What is post-parturient hemoglobinuria in lactating cow? How do you differentiate the hemoglobinuria from hematuria? 6
 b) Give the treatment of the followings: 6
 (i) Urea poisoning.
 (ii) Rickets.
 (iii) Organophosphorus poisoning.

8. Write short notes on any two: 6×2
=12
 a) Pregnancy toxemia.
 b) White muscle disease.
 c) Downer's cow syndrome.

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Chittagong Veterinary and Animal Sciences University
DVM 4th Year 2nd Semester Final Examination, 2010
Course Title: Animal Breeding (Theory)
Course Code: ABR-402
Full Marks: 55, Time: 3 Hours

(Figures in the right margin indicate full marks. Answer 3 (three) questions from each section of which Question No. 1 is compulsory. Use separate answer script for each section)

Section-A

1. a) What do you mean by genetic improvement of livestock? Suppose you are asked to develop a dairy breed using Red Chittagong Cattle genetic resources- describe the procedural steps. 7
b) What is breed complementation? –Explain. 3
2. a) What is inbreeding co-efficient? How the rate of inbreeding can be estimated? 4
b) How will you develop an inbred line of poultry in Bangladesh? 5
3. a) What is heterosis? How can you estimate the hybrid vigor for economic traits in cattle? 5
b) Describe about the genetic causes of heterosis. 4
4. a) Define biotechnology. List different biotechnological approaches used in the field of livestock improvement in Bangladesh. 2
b) Differentiate X and Y chromosome bearing spermatozoa. 3
c) Briefly discuss about the flow cytometry technique of sperm separation. 4

Section-B

5. a) Mention the advantages and disadvantages of embryo transfer programme. 3
b) Write down the embryo transplantation procedure of cow. 6
6. a) Mention the steps to implement a comprehensive cattle breeding policy in Bangladesh. 2
b) Describe the current breeding policy for dairy cattle genetic improvement in Bangladesh. 5
c) Which breed combinations are more adoptable in Bangladesh and why? 2
7. a) What is “Nucleus breeding system”? Give outline for a long term ONBS involving farmer’s community for dairy development in Bangladesh. 6
b) What should be the criteria for a recording system? Explain the importance of adequate record keeping as it relates to herd reproductive performance. 3
8. Write short notes on (any three) 3×3=9
 - a) Crossbreeding in dairy cattle.
 - b) Semen preservation.
 - c) Estrus synchronization in a dairy herd.
 - d) In-Vitro Fertilization (IVF) technique.