Chittagong Veterinary and Animal Sciences University
DVM 1st Year 2nd Semester Final Examination, 2012
Subject: Histology & Embryology- II (Theory)
Course Code: VHE-102
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) Draw and label the neat- histological diagram of esophagus of ruminant. 5.0
   (b) Define payer's patches and mention its location. 2.0

2. (a) Show diagrammatically the general histology of ovary of a cow. 4.0
   (b) Define corpus luteum and mention its function. 3.0

3. (a) Define nephrone. Draw and label the histological structure of different segment of it. 5.0
   (b) Draw and label the histology of ureter of goat. 2.0

4. (a) Compare histologically among the small artery, arteriole and capillary. 4.0
   (b) Show histologically the retina of eye-ball of goat. 3.0

5. (a) Draw and label the fetal membranes of cow. 2.0
   (b) Briefly describe the adrenal gland of goat. 5.0

6. Briefly describe the histology of skin of goat. 7.0

Section-B

7. (a) Differentiate histologically rumen, reticulum and omasum 4.0
   (b) Draw and label the cells of taste bud with its function. 3.0

8. (a) Compare histology between lymphnode and spleen of cow. 3.0
   (b) Briefly describe the histology of cerebellum of CNS. 4.0

9. (a) Briefly describe the histology of epididymis of bull. 4.0
   (b) Mention the structures of ventricular wall of heart from inward to outward in goat. 3.0

10. (a) Describe the histology of gravid uterus of cow. 4.0
    b) Draw and label the histological picture of thymus in goat. 3.0

11. (a) Classify placenta histologically in mammals. 4.0
    (b) Give the histology of portal lobule of liver of goat. 3.0

12. (a) List the endcrine gland of ruminant. 2.0
    (b) Describe the histology of pituitary gland. 5.0

A

102

Chittagong Veterinary and Animal Sciences University
DVM 1st Year 2nd Semester Final Examination, 2012
Subject: Fodder Production (Theory)
Course Code: FPR -102
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) Define fodder and fodder production.	2
	b) Classify fodder with example.	3
	c) What do you mean by legume and non legume fodder? Write down five legume and five non legume fodder with their scientific name.	6
2	a) Define silage and hay.	3
	b) Mention the production procedure of silage.	5
	c) What are the factors those directly affect the losses of nutrients during hay making.	4
3	a) Mention the sowing time, seed rate, harvesting time and yield of Para, Cowpea and Maize.	5
	b) Briefly describe the cultivation process of Napier grass.	5
	c) Write down the nutritive value of Jumbo fodder.	2
4	a) Define soil. Classify soil on the basis of texture and $P^{H.}$	7
	b) Briefly discuss about component of soil.	5

Section-B

5	a) What do you mean by drainage and irrigation?	2
	b) Briefly discuss about bed or border, basin and corrugation method of irrigation.	4
	c) Write down the importance of irrigation in Bangladesh for crop production.	5
6	a) What do you mean by climate and weather?	3
	b) Write down the effect of climate on forage crop production.	5
	c) Mention the name of different soil tract of Bangladesh and indicate the characteristics of two soil tracts which are suitable for fodder production.	4
7	a) How will you preserve the green fodder for future use? Mention the fodders that are suitable for silage and hay making.	3
	b) Write down the importance of conservation of fodder crops	5
	c) Indicate the characteristics of different types of silage.	4
8	Write short notes of the following (any three) a) Green manure; b) Weeds; c) Tillage; d) Alfa-alfa.	3X4= 12

Chittagong Veterinary and Animal Sciences University
DVM 1st Year 2nd Semester Final Examination, 2012
Subject: Biostatistics (Theory)
Course Code: Biostatistics-102
Full Marks: 55, Time: 3 Hours

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

Section-A

1 a. Explain the values of the simple correlation coefficient r when it takes values -1, 0, +1 with the help of scatter diagram. 5

b. The following data refer to the weights (in kg) and ages (in day) of 6 chickens of a poultry farm:

Weight in Kg: 0.5 0.15 1.0 1.25 1.5

Age in day : 10 12 15 18 25

Find correlation coefficient between ages and weights of chickens. 5

2 a. Write the regression equation of Y on X. Define regression coefficient. Show that correlation coefficient is the geometric mean of the regression coefficients. 4

b. Per week weight (in Kg) of a calf from it birth is given below:

Age in week(x)	: 1	2	3	4	5	6
Weight in Kg(Y)	: **25**	**28**	**32**	**36**	**40**	**45**

i. Fit a regression line of weight (Y) on age(X).

ii. Predict the weight of the calf when its age is 10 weeks. 5

3 a. Write down the test statistics for testing the following hypothesis: 6

i. Specified population proportion.

ii. Specified mean when variance is unknown but sample size is less than 30 and drawn from a normal population.

iii. Paired t-test.

b. The following data refer to the gain in weights (in lbs) of 6 pigs given to a specified diet:

Before diet :	25	32	30	34	14	24
After diet :	35	40	36	42	20	28

Test at 5 % level of significance whether the diet was effective. 3

4 a. Define experiment, treatment, block and yield. What are the important basic designs? Give a practical example in the field of veterinary science where we can apply RBD. 5

b. Discuss briefly the principles of experimental design. 4

Section-B

5 a. Define simple random sampling. Distinguish between stratified and cluster sampling. 4

b. Suppose a population consists of the observations 5, 7, 9. Draw all possible samples of size 2 (two) with and without replacement. Also find the distribution of sample mean. 5

6 a. Define chi-square test. State some important uses of chi-square distribution. 4

b. 15 cows were fed each of two feeds. From the 2nd group 2 cows were culled because of illness. The sample means and standard deviation were calculated at the end of the experiment.

	Feed A	Feed B
Mean :	5.9	6.4
Standard deviation :	0.05	0.071

Which of the feeds will cause of cows to produce more milk? **Here, α =0.05** 5

7 a. Define hypothesis. State some applications of normal distribution. 4

b. The expected proportions of RCC, Cross bred and Local breed cattle are 0.45, 0.58 and 0.21 respectively. In a space of 500 cattle, there were 180 RCC, 270 cross and 50 local breed cattle. Are the proportions in that sample space differed than expected? 5

8 Write short notes on: (any three) (3x3)= 9

i. Point and interval estimation, ii. Spearman Rank correlation, iii. Completely Randomized Design, iv. Data transformation.

Chittagong Veterinary and Animal Sciences University
DVM 1st Year 2nd Semester Final Examination, 2012
Subject: Animal Hygiene (Theory)
Course Code: AHY-102
Full Marks: 55, Time: 3 Hours

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

Section-A

1. (a) Define animal hygiene. 3.0
   (b) Mention the scope of animal hygiene. 3.0
   (c) Describe the physico-chemical properties of soil. 4.0

2. (a) Define soil borne disease. 2.0
   (b) Name 5 soil borne diseases and 5 water borne disease with their causal agent. List the measures you should consider for the prevention and control of those diseases. 7.0

3. (a) Define ventilation. Write the types of ventilation along with figure. 4.0
   (b) How will you collect water sample and send to a laboratory for microbial and toxic test? 5.0

4. (a) What are the properties of hygienically pure water? 3.0
   (b) Classify water according to palatability and wholesomeness. 3.0
   (c) Tabulate the principal objectives and methods of water purification. 3.0

Section-B

5 (a) Sketch the methods of carcass disposal and describe the burning method. 4.0
   (b) Name two semen borne disease with etiology. 2.0
   (c) Enlist the condition for hygienic artificial insemination. 3.0

6. (a) Write down the composition of fresh air. 2.0
   (b) What is acid rain? How can you prevent acid raining? 3.0
   (c) Describe the changes of composition of air in an inhibited space. 4.0

7. (a) Define antiseptic and disinfectant. What are the characteristics of an ideal disinfectant? 4.0
   (b)What are the factors responsible for in-sanitary condition of soil? 5.0

8. Write short notes (any three) 3X3 =9

   (a) Animal transportation
   (b) Septic tank and cesspool
   (c) Air space
   (d) Greenhouse effect
   (e) Isolation and quarantine

Chittagong Veterinary and Animal Sciences University
DVM 1st Year 2nd Semester Final Examination, 2012
Subject: Animal Science and Livestock Management-II (Theory)
Course Code: ASM -102
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) Define animal science, livestock, poultry and total digestible nutrient(TDN). 4
b) Why ash and moisture have been ignored from the definition of TDN? 3
c) Differentiate feed, fodder and forage. Name two feed stuffs that are neither roughage nor concentrate. 4

2 a) Define house and housing. Discuss the criteria of selecting site for a modern dairy farm. 4
b) List the merits and demerits of a double row face out system stanchion barn. Which type of housing system is best for growing heifers and why? 4
c) Draw and label a double row face in system stanchion barn and allocate space measurements. 4

3 a) What do you mean by ME? 2
b) Write down the ME, CP and calcium requirement in horse, dog and swine diet. 6
c) Write down the five names of popular breeds of horse and dog. 4

4 a) State the prospects for developing swine industry in Bangladesh. What are the constraints of swine production in industrial scale? 4
b) List the largest, longest and fastest growing breeds of swine. Describe the American landrace, the Yorkshire and the Breakshire breed of swine. 4
c) Describe the American albino, Arabian, Morgan and Belgian breeds of horse. 4

Section-B

5 a) Write down the chemical compositions and nutritive value of the following feed ingredients: 7
i) Rice straw ii) Road side grass iii) Wheat bran vi) Maize v) Fish meal vi) Soybean meal and vii) Full fat soybean.
b) There is no room to classify livestock feed in more than five major divisions - Justify with example. 4

6 a) What is livestock farm management? 2
b) Discuss briefly the common management practices in livestock farming. 8
c) What are the differences between livestock and wild stock? Give five examples of each. 2

7 a) Show the schematic diagram indicating the biological partitioning of energy in animal body. 5
b) Why and how should you attempt to meet the specific nutritive needs of horse? 7

8 a) Write down the nutritive value of egg and chicken meat. 3
b) Write down the nutritive value of cow, doe and woman milk. 3
c) Discuss briefly the food value of meat. 6