

Chittagong Veterinary and Animal Sciences University

MS in Animal Breeding and Genetics

January- June semester final examination-2014

Subject: Conservation Biology and Genetic Diversity

Course Code: CGD-601

Full Marks: 40 ; Time: 2 hours

Answer any **four** questions from the followings. Figures in the right margin indicate full marks

1. What do you mean by Conservation Biology? Briefly describe the chronological development of Conservation Biology. **10**
2. Discuss about role of national and international organization in wildlife conservation. **10**
3. List and define different categories of protected area. Write down about the management of protected area. **10**
4. What are the advantages and disadvantages of in-situ and ex-situ conservation of livestock species? **10**
5. Write a short note about status of genetics resources. **10**
6. Describe briefly about the "Genetic conservation of livestock species". **10**

Chittagong Veterinary and Animal Sciences University
MS in Animal Breeding and Genetics
Jan-June Semester Final Examination-2014
Course: Breeding for Disease Resistance in Farm Animals
Course Code: BDR-601
Full Marks: 40; Time: 2 hours

Answer any four questions. Figures in the right margin indicate full marks.

1. a) Distinguish between disease resistance and resilience 3.0
b) List different genetic diseases/ disorders of cattle. Write down control measure of any of them. 7.0
2. a) What is model? Classify model on the basis of use. 4.0
b) Describe the various modeling approaches with an example of mastitis. 6.0
3. a) What is repeat breeding? 2.0
b) State the genetic and environmental cause of infertility and sterility in males and females. 8.0
4. a) Explain host resistant to tick and tick borne diseases in livestock. 4.0
b) Write down the breeding approaches for resistance to production diseases in poultry. 6.0
5. a) What is major histocompatibility complex? 3.0
b) Write in detail about antigen-antibody reaction in livestock. 7.0

Chittagong Veterinary and Animal Sciences University

MS in Animal Breeding and Genetics

January- June semester final examination-2014

Subject: Physiology of Reproduction

Course Code: PHR-601

Full Marks: 40 ; Time: 2 hours

Answer any **four** questions from the followings. Figures in the right margin indicate full marks

1. What is fertilization? Briefly describe about the cleavage. **10**
2. Write a short note on role of hormones in various phases of female reproduction. **10**
3. Give a diagrammatic illustration of gametogenesis. **10**
4. What is ovulation? Write down about mechanism of ovulation. **10**
5. What are the Symptoms of heat in Cows and Buffaloes? **10**
6. Define parturition. Briefly describe about several stages in parturition. **10**

Chittagong Veterinary and Animal Sciences University

M S in Animal Breeding and Genetics

January-June Semester Final Examination 2014

Course title: Reproductive Nutrition

Course Code: RPN-601

Total marks: 40

Time: 2 hour

Answer any 2 (two) questions from the following. Values are indicated in the right margin in each question.

1. a) Explain the term reproductive nutrition. Write down the effect of nutrition for good semen production from a bull. 5
- b) Write down nutritional requirements of a pregnant cow having 350 kg live weight and daily milk yield is 12 liter with fat percentage is 4 and the cow are 230 days pregnant. Provide the ration of this cow with the available feed ingredients. 10
- c) List of the feeding standards those are used for poultry ration. Discuss any of them with its limitation. 5

2. a) What is fertility? Describe the biological framework those determine the herd fertility. 7
- b) Write in brief that how you will analyze the dairy herd fertility. 8
- c) Describe the techniques to control the reproductive events of a dairy herd. 5

3. a) What is value of milk? Describe in brief the causes of variation in the yield and composition of milk from cow. 5
- b) Write down the management of a bull during pre breeding and breeding season. 5
- c) State the term useful life. Narrate a ration for a 3.5 years old bull having 750 kg live weight and dairy live weight gain is 350g and are used for natural service twice a week and prove 12ml semen per ejaculate. 10

Chittagong Veterinary and Animal Sciences University

M S in Animal Breeding and Genetics

January-June Semester Final Examination 2014

Course title: Animal Breeding Principles & Systems

Course Code: ABP-601

Total marks: 40

Time: 2 hour

Answer any 2 (two) questions from the following. Values are indicated in the right margin in each question.

1. a) What do you mean by the term heritability? Write down the methods for the estimation of heritability value for a given trait and mention what it indicates. **12**
- b) Environment is important factors for the expression of a genotypic value –explain it. **5**
- c) List of the value of heritability and repeatability of traits under the objective of milk production. **3**
2. a) What is correlated trait? Design how will you improve the correlated traits in dairy development. **10**
- b) Define heterosis. Heterosis occur by the effect of non-additive gene action- explain it with example. **10**
3. a) What is response to selection? Write down the factors those enhance the response to selection. **5**
- b) Write in brief for the estimation of genetic gains for growth rate of a bull calves by using four path way of selection when the reproductive technique MOET is implemented. **10**
- c) Discuss the impact of AI and genetic engineering on genetic gain of a trait. **5**

Chittagong Veterinary and Animal Sciences University
MS in Animal Breeding and Genetics
Jan-June Semester Final Examination-2014
Course: Genetics
Course Code: GNT-601
Full Marks: 40; Time: 2 hours

Answer any four questions. Figures in the right margin indicate full marks.

1. a) Write down the characteristics of genetic materials. 2.0
b) Describe how a DNA molecule is formed from a mother DNA molecule. 4.0
c) Giant DNA molecule package in a chromosome- Explain. 4.0
2. a) State the first and second laws of Mendel. 4.0
b) The ratios of Mendelian Inheritance can be changed by some factors- briefly describe about those factors. 6.0
3. a) What are the methods of bacterial recombination? Explain transduction. 4.0
b) State the Hardy-Weinberg law with the steps of estimating gene frequencies using this law. How you can probe that whether the population in equilibrium condition or not? Mention the implication of Hardy-Weinberg equilibrium. 6.0
4. a) Define sex-determination. Classify the mechanism of sex-determination with examples. 7.0
b) Write down about different types of banding patterns. 3.0
5. a) What is tissue culture? What are the purposes of tissue culture in genetic study? 4.0
b) What are the considerations you should take during culturing of tissue for genetic purpose? 6.0

Chittagong Veterinary and Animal Sciences University
MS in Poultry Science final Examination
Semester: January–June 2014
Subject: Ducks & Specialized Fowl Production-Theory
Course Title: DSF-601; Total marks: 40; Time: 2 hours

Answer any five questions of the following wherein question no. 2 is compulsory; Each question has equal marks. Figures in the right margin indicate full marks

1. Describe the selection strategies and production systems for enhancing duck meat output in the world 8
2. What is integrated farming? Discuss a strategy that you would adopt to do proper utilization of space and poultry wastes for meeting high demand of protein for the consumers 8
3. What are the limitations of geese rearing in our country? Narrate the feeding, fattening, and management systems of geese production briefly 8
4. Rearing of quail in the cage system is preferable to floor system why? Rearing quail is more profitable than chicken-discuss it. 8
5. a) State the prospect of pigeon rearing in Bangladesh. Discuss the hatching and rearing management of squab 4
b) Describe the feeding and housing management system of pigeon
6. a) What strategies would you adopt to popularize guineafowl production in Bangladesh
b) Mention the prospect and problem of guinea fowl rearing in Bangladesh 4
7. a) Write down the available breeds, and breeding strategy of turkey 4
b) Discuss the productive traits, feeding and rearing strategies of turkey 4

Chittagong Veterinary and Animal Sciences University
MS in Poultry Science final Examination
Semester: January–June 2014
Subject: Poultry Farm Planning and Management -Theory
Course Title: PPM-602; Total marks: 40; Time: 2 hours

Answer any five questions of the following where question no. 5 is compulsory; Each question has equal marks, Figures in the right margin indicate full marks

- 1) What is plan, program, and organization? Discuss the general principles of farm planning 8
- 2) State the managerial roles of a poultry farm to maintain profitable production, and give a plan for maintaining strict bio-security and sanitary measurements 8
- 3) What is farm & farming system? Discuss the different factors that affect farm planning and design 8
- 4) Discuss the system properties and criteria for measurement of performance of ideal farming 8
- 5) Give an advisory plan or suggestions to a farmer who wants to produce twenty thousand day-old chicks from a breeder flock 8
- 6) Discuss market identification, benefits, and limitation of poultry farming shortly 8
- 7) Narrate the strategies or plans with which you can reduce the environmental pollution that is retrieved from poultry enterprises briefly 8
- 8) Give the schematic view with numerical calculation (**cost: benefit analysis**) for the argument that quail rearing is more profitable than chicken 8

Chittagong Veterinary and Animal Sciences University
MS in Poultry Science final Examination
Semester: January–June 2014
Subject: Poultry Processing and Products Technology-Theory
Course Title: PPT-602; Total marks: 40; Time: 2 hours

Answer any five questions of the following where question no. 1 is compulsory; Each question has equal marks, Figures in the right margin indicate full marks

1. a) Define meat, and egg? Discuss the food value of meat and eggs briefly 4
b) Describe the important parameters with which you can assess the quality of poultry meat & eggs in a nutshell 4
2. a) What is shrinkage? State the factors that affect shrinkage of broiler 3
b) Discuss the salient steps of broiler processing, and its storage and delivery systems for the national & international marketing 5
3. What is poultry carcass grading? Describe the standards or mechanisms of grading poultry (live, ready -to-cook, small/large scale operation) for marketing 8
4. a) Enumerate the poultry products (**meat and eggs**) available in the supermarket 2
b) Write down the industrial utilization and bakery uses of eggs, and state the procedure of manufacturing Turkey Ham, Turkey Salami, and Pickle Pimento Loaf 6
5. a) Mention the different methods of preservation and storage of poultry products 2
b). Describe three common methods of preserving poultry meats and eggs, respectively. 6
6. What is quality? Describe the factors that influence poultry meat quality briefly 8
7. Give short note (any five) of the following (1.6 × 5=8): 8
 - a) Egg yolk and its role on human health: b) Balut: c) Grab and Go: d) Fryer: e) Frozen egg: f) Pasteurized liquid egg, g) Chicken Nuggets: h) Functional properties of animal protein (egg): i) Uses of poultry by-products: j) Ante-mortem and post-mortem inspection of poultry

Chittagong Veterinary and Animal Sciences University
 Department of Dairy and Poultry Science
 Semester Final Exam of MS in Dairy Science (January-June/2014)
 Course Code: ABS-601, Course Title: Advanced Biostatistics
 Full Marks: 40 Time: 2 hours

[Answer any five questions. Figures in the right margin indicate full marks. Split answering is not recommended]

1.	a. Define factorial experiment design. Write down the treatment combinations of 2^3 factorial design	2																
	b. Write down the advantages and disadvantages of factorial design.	3																
	c. Describe the procedure of 2^2 factorial design to apply in poultry science by Yate's algorithm.	3																
2.	a. What is non-parametric test? Enlist the advantages and disadvantages of non-parametric test.	3																
	b. Write down the conducting steps of sign test for one sample.	3																
	c. Give an example of wilcoxon signed rank test for two correlated samples.	2																
3.	a. Define and classify of life table. Write down the uses of life table.	3																
	b. Define fertility and mortality.	2																
	c. Complete the life table of the population of Leghorn, x being the age in days and $l_x=1000$ for $x=0$	3																
<table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>x</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>q_x</td> <td>0.120</td> <td>0.005</td> <td>0.010</td> <td>0.050</td> <td>0.100</td> <td>0.500</td> <td>0.8000</td> </tr> </tbody> </table>			x	0	1	2	3	4	5	6	q_x	0.120	0.005	0.010	0.050	0.100	0.500	0.8000
x	0	1	2	3	4	5	6											
q_x	0.120	0.005	0.010	0.050	0.100	0.500	0.8000											
4.	a. What do you mean by non-sampling error? List the sources of non-sampling error.	3																
	b. Define cluster sampling with example. Write down the advantages of this design.	3																
	c. How can you get stratified sample mean?	2																
5.	a. Define vital statistics. Describe the methods of obtaining vital statistics.	3																
	b. Discuss the application situations of non-parametric test.	2																
	c. Write down the advantages of cross-over design.	3																
6.	Write short notes on (any two):	2x4=8																
	a. Multistage sampling, b. Kruskal Wallis test and c. Cross-over design																	

Chittagong Veterinary & Animal Sciences University

M.S. in Dairy Science

January - June Semester, 2014

Sub: Dairy Technology Course Code: DTL 601

Total Marks: 40

Time: 2 hrs.

Answers - any four questions.

1. (a) State the principles of preparation of cheese — 2.0
(b) State the composition and nutritive value of Cheddar cheese. — 3.0
(c) Enumerate the common defects of cheddar cheese with their remedial measures. — 5.0
2. (a) Define ghee and butter oil. — 2.0
(b) Show the compositional differences between these two dairy products. — 3.0
(c) Recommend your suggestions to increase the shelf life of ghee in open containers as well as in tinned container. — 5.0
3. (a) What do you mean by Churning? — 2.0
(b) What ~~are~~ do you mean by Phase Inversion theory? Explain. — 3.0
(c) State the procedure of making cultured buttermilk in a medium scale factory. — 5.0
4. (a) Classify cream. Is hal-and-half cream? Justify your answer. — 4.0
(b) What are the common uses of table cream? — 2.0
(c) What do you mean by over-run in butter? Why salted butter is preferred to plain butter in tropical countries? — 4.0
5. (a) Show the diagrammatic flow chart of making ice cream. — 2.0
(b) What is role of aging in preparing cup ice cream — 4.0
(c) State the principles of preparing fruit ice cream in large-scale. — 4.0
6. (a) State the concepts of Evaporated milk and Condensed milk — 2.0
(b) Present the compositions of them. State the principles of preparation of condensed milk. — 4.0
(c) What are the common defects of evaporated milk? State your suggestion to overcome them. — 4.0
7. Write short notes (any four) $4 \times 2.5 = 10.0$
(a) Planning commercial dairy plant; (b) Factors affecting quality of yoghurt; (c) Freeze drying; (d) Cultured whey; (e) Powder milk; (f) Sweet meals of Bangladesh; (g) Cholesterol reduced butter

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07/05/2014

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