

Chittagong Veterinary and Animal Sciences University
 Dept. of Genetics and Animal Breeding
 M.S. in Animal Breeding and Genetics
 January-June semester final examination - 2018
 Subject: Conservation Biology & Genetic Diversity
 Course Code: CGD-601
 Total Marks: 40; Time: 2 hours
 Date: 24/05/2018

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

1.	a) Briefly describe about broad speculation on the future of conservation biology.	5.0
	b) What is wildlife? Write down the importance of wildlife.	5.0
2.	a) Briefly discuss about the several types of habitat destruction.	5.0
	b) Explain the term overexploitation?	5.0
3.	a) Write a short note about in-situ conservation.	5.0
	b) How you will reintroduction Indian Peafowl in the forest of Bangladesh.	5.0
4.	a) Write down the types, advantages and disadvantages of ex-situ conservations.	5.0
	b) Explain the term critically endangered. How you will make a conservation plan for White-rumped Vulture of Bangladesh.	5.0
5.	a) Give a management procedure of Sundarban for conservation of Royal Bengal Tiger.	5.0
	b) How many protected areas are available in Bangladesh? Write down the role of that protected areas for conservation of wildlife.	5.0

Chittagong Veterinary and Animal Sciences University
 Dept. of Genetics and Animal Breeding
 M.S. in Animal Breeding and Genetics
 January-June semester final examination - 2018
 Subject: Breeding for Disease Resistance in Farm Animals
 Course Code: BDR-601
 Total Marks: 40; Time: 2 hours
 Date: 27/05/2018

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

1.	a) What do you mean by disease resistance animal? Distinguish between disease resistance and resilience.	5.0
	b) List different genetic diseases and disorders of cattle. Write down the control measures of any one.	5.0
2.	a) What is model? Classify model on the basis of uses.	5.0
	b) How you will approaches various models for Mastitis?	5.0
3.	a) Write a short note about resistance to ticks.	5.0
	b) How you will control tick infestation by application of breeding knowledge?	5.0
4.	a) Write in details about antigen-antibody reaction in livestock.	5.0
	b) Explain the term major histocompatibility complex.	5.0
5.	a) Write a short note about clonal selection.	5.0
	b) How you will produce disease resistance poultry for productive traits?	5.0

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Dept. of Genetics and Animal Breeding
M.S. in Animal Breeding and Genetics
January-June semester final examination - 2018
Subject: Physiology of Reproduction
Course Code: PHR-601
Total Marks: 40; Time: 2 hours
Date: 17/05/2018

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

1.	a) How you will detect heat in farm animal?	5.0
	b) Write a short note about oestrus synchronization.	5.0
2.	a) Briefly discuss about the hormonal control of male reproduction.	5.0
	b) Discussion about the reproductive pattern of cow.	5.0
3.	a) Write a short note about ova.	5.0
	b) Briefly discuss about the process of spermatogenesis.	5.0
4.	a) Draw and label female genital system of a cow and state its function.	5.0
	b) Define hormone. Classify hormone on the basis of origin with example.	5.0
5.	a) Write down about maternal and neonatal behavior of cattle.	5.0
	b) Give a brief discussion about several stages of parturition.	5.0

Chittagong Veterinary and Animal Sciences University
MS in Animal Breeding and Genetics
January-June Semester Final Examination-2018
Course title: Genetics
Course Code: GNT 601
Full marks-40.0, Time-2hr

Answer any 2 (two) question from the followings. Figure in the right margin indicate full marks.

- 1
 - a) How prokaryotic replications differ from eukaryotic replication? **3.0**
 - b) Write down different types of chromosome banding pattern with advantage and disadvantages? **5.0**
 - c) A married couple, both of whom had normal vision, produced a color blind son. Examination of cell samples from the son showed the presence of a barr body. What is the probable genotype of the son with respect to sex chromosome and colorblindness? What is the explanation that will account for this genotype? **5.0**
 - d) Briefly describe protein biosynthesis process? **7.0**

- 2
 - a) Describe the term “epigenetics”? Explain this phenomenon using some analogies? **5.0**
 - b) Why is linkage an exception to Mendel's second law? Linkage provided that a gene occupies a fixed locus on a specific chromosome. Explain? **5.0**
 - c) Briefly discuss the significance and role of polyploidy in evolution? How allopolyploidy occurs? Write down the significance of it? **6.0**
 - d) Differentiate between (i) Sex influenced and holandric character (ii) X and Y chromosome **4.0**

- 3
 - a) Explain Hardy Weinberg Equilibrium? **3.0**
 - b) What are conditions necessary for the maintenance of this equilibrium in any populations- Discuss? **7.0**
 - c) Consider a locus with 12 alleles, A₁, A₂, ... , A₁₂. What is the frequency of allele A₁ if we know that freq (A₁A₁) = 0.10, and that the frequency of all heterozygote genotypes containing A₁ is 0.40. Under the assumption of Hardy-Weinberg, what is the expected frequency of A₁A₁? Of any heterozygote involving A₁? **5.0**
 - d) Define cytoplasmic inheritance. Discuss about the impact of cytoplasmic component on production trait of ruminants? **5.0**

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M S in Animal Breeding and Genetics
January-June Semester Final Examination 2018

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 relationship between reproduction and nutrition. Write down the effect of nutrition for good semen production of a breeding bull. 5
- b) Write down nutritional requirements of a 180 days pregnant cow having 300 kg live weight and daily milk yield is 10 liter with fat percentage is 4.0 ~~and~~ ^{of} the cow. Provide the ration of this cow with the available feed ingredients. 10
- c) List of the feeding standards those are used for dairy 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. 7
- c) State the reproductive pattern of cow. Describe the techniques to control the reproductive events of a dairy herd. 6
3. a) What is milk? State milk value. Describe in brief the causes of variation in the composition of cow's milk. 5
- b) Write down the management of a bull during breeding and post breeding season. 5
- c) Describe useful life of bull in Progeny testing programme. Narrate a ration for a 2 years old bull having 600 kg live weight and dairy live weight gain is 250g and are used for collection of semen using artificial vagina twice a week and produce 8ml semen/ ejaculation. 10

Chittagong Veterinary and Animal Sciences University

M S in Animal Breeding and Genetics

January-June Semester Final Examination 2018

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 does the h^2 value indicate (s). 10
- b) What is industry structure? Describe the dairy industry structure for developing country- state your opinion whether it work good. 10
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 breeding value? Describe mixed model equation. Decompose this equation for estimating the breeding values for economic trait of dairy cow. 10
- 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