

2021

ANIMAL HUSBANDRY AND VETERINARY SCIENCE

PAPER-I

Time Allowed — 3 Hours

Full Marks — 200

If the questions attempted are in excess of the prescribed number, only the questions attempted first up to the prescribed number shall be valued and the remaining ones ignored.

Answer may be given either in **English** or in **Bengali** but all answers must be in one and same language.

Group-A

Answer any three questions.

1. (a) Give the importance of total mixed ration (TMR) in feeding dairy cow.
(b) Mention the benefits and risk associated with the use of antibiotics as feed additives. What are the alternatives to antibiotics as growth promoters in poultry?
(c) How dietary protein is digested by ruminants? 10+15+15=40
2. (a) Briefly narrate the development of poultry industry in India after independence.
(b) Narrate the brooding management practices in India in different rearing system.
(c) Mention the different managemental aspects of commercial lays farming. 10+15+15=40
3. (a) What is epistasis? How they modify classical Mendelian ratio 9 : 3 : 3 : 1 — discuss with example.
(b) Gene and Genotype frequency of a population remains constant generation after generation — prove it.
(c) Classify different types of outbreeding and their implication. 15+15+10=40
4. (a) Oestrus detection is a key factor for economy farming. Give various methods of oestrus detection in farm animals.
(b) Define libido. Describe the various factors that influence the sex drive in bulls.
(c) Discuss the clinical use of hormones in female reproduction with their side effects. 15+10+15=40
5. (a) Describe in detail about organic dairy products and its importance.
(b) Write in detail about different methods used for treatment of abattoir effluent.
(c) Give a brief note on the role of 'hurdle technology' in meat preservation. 15+15+10=40

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Group-B

6. Answer *any four* of the following: 10×4=40

- (a) Outline the technique for production of hybrid strain of poultry utilising GCA and SCA both.
- (b) What are the objectives and importance of post-mortem inspection of animal carcasses?
- (c) Define social class and various social class existed in our society. Mention the difference between social class and caste system in the society.
- (d) Give a brief note on the methods to improve the quality of crop residue.
- (e) Mention the points to be considered for clean milk production.
- (f) Discuss about the factors causing infertility in males.

7. Attempt *any four* of the following: 10×4=40

- (a) What is the importance of buffalo in India and mention few important breeds of buffalo in India.
- (b) Define anoestrus, repeat breeding and silent heat with etiology.
- (c) Assortative mating and its implication in population.
- (d) Give a brief note on the factors responsible for 'Response to selection' and their relationship.
- (e) Describe in brief about the basic requirements for setting up a dairy plant.
- (f) Mention in brief about 'Extension Education Process.'

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