

CSM—12/24
PART—II/PAPER—VI
ANIMAL HUSBANDRY & VETERINARY SCIENCE
PAPER—I

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Time : 3 Hours

Full Marks : 250

*The question paper contains 18 (Eighteen) questions
in GROUP—A, (12) and GROUP—B, (06) together.*

GROUP—A

Candidates to attempt 10 (ten) questions within word limit of 250.

Each question carries 15 marks.

1. What are feed additives? What are the desired characteristics of feed additives? Discuss various classes of feed additives with examples.
2. Enlist various types of feeding experiments. Differentiate advantages and disadvantages between group feeding and individual feeding.
3. Elaborate on five mechanisms of heat loss or gain by animal. Write a note on significance of 'boundary layer' along with suitable example.
4. Discuss the effect of environment on egg production and quality in birds.
5. What are growth curves? Draw and elaborate on four types of growth curves along with examples. Discuss factors affecting prenatal growth.
6. Discuss the functions of stomach. Elaborate on the phases of gastric secretion.

7. What are the general factors affecting lactation? Discuss the hormonal factors affecting milk production in cattle.
8. Describe the role of epididymis in maturation of spermatozoa. What are the major components of seminal plasma? Discuss their role in maintaining spermatozoa in female reproductive tract.
9. Discuss the general functions of major minerals. What are the specific functions of calcium and phosphorus?
10. Give physiological functions of vitamin A and also enumerate the possible effects in animals due to its deficiency.
11. Give the general feeding recommendations for dairy cattle in Indian context. Discuss the general principles of feeding recommendations for pregnant buffaloes.
12. Give the nutrient requirements of layer bird and possible modifications in feed formations to enhance productivity.

GROUP—B

*Candidates to attempt **05 (five)** questions within word limit of **300**.*

*Each question carries **20** marks.*

13. Enlist the economic traits for layer poultry with significance of each.
14. What is the significance of record keeping in dairy farm? Discuss various records that must be maintained on dairy farm for achieving economic production.
15. What is pedigree selection? What are the various limitations and advantages of pedigree selection?
16. Classify genetic traits from genetic standpoint and compare between qualitative and quantitative traits.

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17. What are heritability and ways of expression of heritability? Write a note on the usefulness of heritability.

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18. In housefly, allele for grey body 'B' is dominant to allele for black body 'b'. Similarly, allele for normal wing 'W' is dominant to allele for vestigial wing 'w'. A male housefly, which is heterozygous for both traits, was crossed with a female housefly with black body and vestigial wings. The phenotype of progeny and their numbers are as follows :

Grey Body, normal wings : 230

Black body, normal wings : 70

Grey body, vestigial wings : 65

Black body, vestigial wings : 235

Do the results of this testcross indicate that genes for these two traits are linked? If linked, what is the percentage of crossover or recombination? Give suitable explanation.

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SPACE FOR ROUGH WORK

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