I.F.S-2009

Sl. No. 1005

B-JGT-J-BIA

ANIMAL HUSBANDRY AND VETERINARY SCIENCE

Paper I

Time Allowed : Three Hours | *Maximum Marks : 200*

INSTRUCTIONS

Candidates should attempt Question Nos. 1 and 5 which are compulsory, and any THREE of the remaining questions selecting at least ONE question from each Section.

The number of marks carried by each question is indicated at the end of the question.

Answers must be written in ENGLISH.

Neat sketches may be drawn, wherever required.

Section – A

1. Write short notes on any *four* of the following in not more than **150** words each : 10×4=40

(a) Inter-relationship of calcium, phosphorus and vitamin-D.

(b) Energy : protein ratios in Ration.

(c) BMR and its estimation.

(Contd.)

(d) Feeding of cattle under range conditions.

(e) Spermatogenesis in bulls.

2. (a) Briefly discuss the physical and physiological mechanisms of adaptation of sheep to hot-arid environment.

(b) Write a short note on the management of animals under drought conditions.

(c) Describe Artificial insemination in poultry.

20+10+10=40

3. (a) What are the conventional and non-conventional feed ? Give the characteristics of different unconventional feed under natural calamities like flood and tsunami.

(b) Describe in brief the digestive system of cattle and compare it with that of pig, bringing out the basic differences in the two species. Illustrate with diagrams, wherever necessary.

20+20=40

4. (a) Suggest measures to improve the food availability for dairy animals in India, in terms of quantity and quality, keeping in view the economy and human demand factor.

(b) Milk production in buffaloes is greatly reduced in summer due to heat stress. Briefly describe the methods of ameliorating this heat stress.

20+20=40

Section – B

5. Write short notes on any ***four*** of the following in not more than **150** words each : 10×4=40

(a) Holding up of milk.

(b) Mutations, their types and methods of detecting.

(c) Role of protozoa in rumen.

(d) Progeny testing.

(e) Inbreeding, upgrading and cross-breeding.

6. (a) Describe the common systems of housing poultry. Discuss the basic requirements, merits and demerits of Deep Litter system of housing in a tropical country like India.

(b) Describe new trends in enhancing mutton production.

(c) Name the diseases of sheep affecting wool and meat production due to deficiency of copper, selenium and vitamin-E. Discuss their pathogenesis. 20+10+10=40

7. (a) Compare dairying under mixed farming and dairying under specialized farming. Which one of these is best suited to an average Indian farmer and why ?

(b) What are the factors determining the efficiency of dairy animal ?

(c) What is herd recording and budgeting the cost of milk production ? 20+10+10=40

8. (a) Discuss merits and demerits of different methods of estimating heritability.

(b) Write a short note on Recombinant DNA Technology.

(c) What is crossing of inbred lines for commercial production ? 20+10+10=40