COMBINED COMPETITIVE EXAMINATION (MAIN) ANIMAL HUSBANDRY & VETERINARY SCIENCE

Paper-I

Time: 3 Hours Full Marks: 200

Note: (1) The figures in the right-hand margin indicate full marks for the questions.

- (2) Attempt all questions.
- 1. Answer any five of the following questions:

 $10 \times 5 = 50$

- (a) Describe the hormonal control of mammary gland development and milk secretion process in a dairy cow.
- (b) What do you mean by pasteurization? What are different methods applied for pasteurization of milk?
- (c) Explain the importance of bypass protein and bypass fat in ruminants.
- (d) What is wool? How does it differ from hair? Describe about the processing of wool.
- (e) What is superovulation? What are the drugs used for superovulation in cow? Write some applications of superovulation in animal reproduction.
- (f) "Nothing is wasted except the cry of animal." Explain the statement.
- 2. Answer any five of the following questions:

 $8 \times 5 = 40$

- (a) What is stress? What are different types of stress? How does heat stress affect on animal production?
- (b) What is piglet anemia? How will you manage it?
- (c) Name some extenders used for bull semen preservation. What are the characteristics of a good extender?
- (d) What is area specific mineral mixture and what is the role of area specific mineral mixture for enhancement of productivity of dairy cows?
- (e) What are the requirements for production of clean milk?
- (f) What is balanced ration? How will you formulate a balanced ration for a pregnant cow?

3. Answer any two of the following questions:

 $20 \times 2 = 40$

- (a) Write the principle and procedure of deep freezing of semen.
- (b) What are the methods to improve nutritive values of roughage and concentrate for animal feeding?
- (c) Describe different methods of semen collection.
- 4. Answer any ten of the following questions:

5×10=50

- (a) What are the total fat and SNF values of skimmed milk, toned milk and double toned milk?
- (b) Describe about feeding of animals during flood.
- (c) What are the accessory sex glands in bull?
- (d) What are the hormones secreted from pituitary gland related to fertility?
- (e) Write about the composition of milk of cow and buffaloes.
- (f) What are different methods of packaging of milk?
- (g) Describe about the nutrients required for heifers.
- (h) "Bull is considered as a half of the herd." Explain briefly.
- (i) What are the methods of controlling environmental stress in a dairy herd?
- (j) Describe the procedure of preparation of soft curd.
- (k) What are different parts of female reproductive tract of a cow? Write one function of each part.
- 5. Answer any four of the following questions:

 $5 \times 4 = 20$

- (a) What are the managerial practices that can be followed for rearing of poultry?
- (b) What do you mean by herd recording? How will you maintain recording in dairy farm?
- (c) What are silage and hay? Name the most suitable fodders for the preparation of silage and hay.
- (d) Describe care and management of a pregnant cow.
- (e) Write a short note on feed additive and probiotics.

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