BJKE-U-AHVS

ANIMAL HUSBANDRY AND VETERINARY SCIENCE

Paper – I

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

Question Paper Specific Instructions

Please read each of the following instructions carefully before attempting questions :

*There are **EIGHT** questions in all, out of which **FIVE** are to be attempted.*

*Questions no. **1** and **5** are compulsory. Out of the remaining **SIX** questions, **THREE** are to be attempted selecting at least **ONE** question from each of the two Sections A and B.*

Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

All questions carry equal marks. The number of marks carried by a question/part is indicated against it.

Neat sketches may be drawn, wherever required.

*Answers must be written in **ENGLISH** only.*

SECTION A

Q1. Write short notes on the following :

(a) Total digestible nutrients *8*

(b) Physiological functions of digestive organs of bullock *8*

(c) Behavioural adaptation of animals to climatic stress *8*

(d) Role of para-probiotic in animal nutrition *8*

(e) Energy ingredients in poultry rations *8*

Q2. (a) Describe the methods for assessment of protein quality for monogastric animals. *15*

(b) Describe the properties of an ideal semen dilutor. *15*

(c) Discuss the nutrients and their metabolism in relation to milk production in buffaloes. *10*

Q3. (a) Describe the sources, physiological functions and deficiency symptoms of copper and zinc in sheep. *15*

(b) Describe the stages of prenatal and postnatal growth in animals. *15*

(c) Discuss the requirement of amino acids, proteins and fatty acids in swine ration. *10*

Q4. (a) Describe the deep freezing techniques of caprine semen. *10*

(b) Describe the method for digestibility determination of maize fodder in cattle. *15*

(c) Describe the steps for formulation of broiler starter chick feed. *15*

SECTION B

Q5. Write short notes on the following :

(a) Importance of genetic code in protein synthesis *8*

(b) Formulation of economic rations for goats *8*

(c) Coefficient of coincidence and Coefficient of interference *8*

(d) Present status of dairy farming in India *8*

(e) Significance of balance studies in animals *8*

Q6. (a) Describe the strategic key points for starting a dairy farm and discuss the opportunities in dairy farming. *15*

(b) Define the concept of path coefficient and explain its characteristics and applications. *15*

(c) Describe in detail the merits and demerits of progeny testing. *10*

Q7. (a) Discuss the feeding of sheep for wool production. *10*

(b) Explain Genetic Polymorphism. Discuss in detail the importance of genetic diversity and its conservation. *20*

(c) Discuss in detail the process of random genetic drift in small populations. *10*

Q8. (a) Explain in detail the latest trends in feeding of young and adult dairy cattle and maintenance of feeding records. *15*

(b) Define Genetic gain. Describe in detail the evaluation of genetic gains in various selection methods. *15*

(c) Describe the strategies for efficient management of animals during natural calamities. *10*