CC/M/EXAM.
2020

ANIMAL HUSBANDRY AND VETERINARY SCIENCE

PAPER—I

Time : 3 hours] [Full Marks : 250

Note : Question Nos. **1** and **5** are compulsory and out of the remaining, any **three** are to be attempted choosing at least ONE question from each Section. The number of marks carried by a question/part is indicated against it.

SECTION—A

1. Answer *any* **five** of the following questions :

(a) Write on feeding of pregnant cow and breeding bulls. 5+5=10

(b) What is the role of feed additive in balanced ration? Write a short note on the recent advances of using feed additives in animal feeding. 5+5=10

(c) Write a short note on cardiac cycle. How will you interpret the electrocardiogram in animals? 5+5=10

(d) What is stress and what are the different factors of stress? How does stress affect health and animal production? 5+5=10

(e) Write about the hormonal control of mammary development in dairy cow. 10

(f) How does kidney maintain acid-base balance? What are the biochemical tests for assessing urinary function? 5+5=10

(g) Write five advantages and disadvantages of artificial insemination. 5+5=10

2. Answer the following questions :

(a) What is repeat breeder cow? What are the different causes of repeat breeding? How will you address repeat breeding in field condition? 2+8+10=20

(b) What are the prerequisites to be kept in mind for starting a dairy farm in north-east climatic condition? 15

(c) Write a brief note on feeding and management of animals during natural calamities. 15

3. Answer the following questions :

(a) What is selection? Explain different types of selection. Discuss the factors affecting response to selection. 2+8+10=20

(b) Write about the objectives, concept and principle of extension in animal husbandry. 5+5+5=15

(c) Write a brief note on mutation. What are the types of mutation? How do you detect mutation? 5+5+5=15

4. Answer the following questions :

(a) What is anestrous? What are the different causes of anestrous? How will you address anestrous in field conditions? 2+8+10=20

(b) What are the different programmes for upliftment of animal husbandry sector in rural areas? 15

(c) What are the different methods of detection of estrus in cow and goats? 7½×2=15

SECTION—B

5. Answer *any* **five** of the following questions :

(a) What is balanced ration? Write the importance of balanced ration in livestock production. 5+5=10

(b) How do you formulate the ration for lean meat production in pig? 10

(c) How do you classify the hormones? How does thyroid stimulating hormone act on the thyroid glands for production of T3 and T4? 5+5=10

(d) Write a brief note on cardio-pulmonary blood circulation. 10

(e) What are the constraints of transferring technology in animal husbandry extension? 10

(f) What are the components of semen? Write down their functions. 5+5=10

(g) How does cross-breeding policy improve animal production? 10

6. Answer the following questions :

(a) What is an ideal semen extender? How does the component of semen extender prolong the lifespan of Spermatozoa? Write in detail. 5+15=20

(b) What are the constituents of blood? What are the functions of blood? 5+10=15

(c) Describe in detail about hemopoiesis mechanism in bovine. 15

7. Answer the following questions :

(a) Write in detail about the procedure of storage of feeds and fodder. 20

(b) What is breeding efficiency and how can it be measured? 15

(c) Write a note on sex-linked inheritance and sex-influence inheritance with suitable examples. 15

8. Answer the following questions :

(a) What are the measures to be taken for maintaining bio-security in a dairy and piggery farm? 20

(b) What are the different routine and biochemical-based methods for evaluation of semen quality? 7½×2=15

(c) Write in detail about the methods to be executed for educating rural farmers. 15

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