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HPAS (M)—2014

**ANIMAL HUSBANDRY AND VETERINARY
SCIENCE**

Paper I

Time : 3 Hours

Maximum Marks : 150

Note :— Answer any *five* questions including Question No. 5 which is compulsory.

1. (a) Define energy. What are the different form of energy ? 10
- (b) Give the schematic representation of partitioning food energy in the animal body. If protein is in excess compared to the level of energy, what will happen to the excess protein ? 10
- (c) Describe calorimetric method of feed energy estimation. 10

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2. (a) Define digestibility and digestibility coefficient. 10
- (b) Mention the different methods of estimation of digestibility and explain any *one*. 10
- (c) Enlist the essential macro and trace minerals. Write general functions of essential minerals in the animal body. 10
3. (a) Discuss the various factors affecting the post-natal growth of female calf. 10
- (b) Briefly discuss the hormones necessary to maintain the breeding efficiency of the livestock. 10
- (c) How does an endotherm maintain its body temperature when it is too low or high ? 10
4. (a) Write the importance in practice of biosecurity in the livestock farming. 10
- (b) Describe the existing marketing pattern either of milk or of broiler chicken and egg and discuss the common problems seen in this. 10
- (c) Prepare the layout plan for establishment of goat farm for 100 animals. 10

5. Write short notes on any *three* of the following :
- (a) Care and management of rabbit reared for meat production. 10
 - (b) Thermoregulatory mechanism in poultry. 10
 - (c) What are chelated minerals ? Mention types of chelation. 10
 - (d) Legal and BIS standards for meat industry. 10
6. (a) Write various sanitation measures required for clean and safe milk and for milk plant. 10
- (b) What is synthetic milk ? How will you detect adulteration in milk and milk byproduct ? 10
- (c) Enumerate the various byproducts of milk. Describe the method of preparation and grading of Butter. 10
7. (a) Prospect of organic poultry production in India. 10
- (b) Nutritive value of poultry meat in comparison to other animal meat. 10
- (c) What feeding and management practices would you recommend for ruminant animals during drought and flood conditions ? 10

8. (a) What are the important factors that affect the self-life of meat ? Compare the various methods employed to prolong the self life of meat. 10
- (b) Describe the nutritive value of poultry meat and meat byproduct. 10
- (c) Discuss the organ product used as food and in pharmaceuticals. 10