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HPAS (M)—2015

**ANIMAL HUSBANDRY AND VETERINARY
SCIENCE**

Paper-II

Time : 3 Hours

Maximum Marks : 150

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

1. (a) Define heterosis. List out theories connected with heterosis. 10
- (b) Discuss the advantage of heterosis and breeding plans to exploit heterosis. 10
- (c) What breeding system will you use for exploiting heterosis in broiler production ? 10
2. (a) Classify mating system and explain different types of Assortative mating. 10

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- (b) What do you understand by Nucleus Breeding Scheme ? Discuss different types of breeding schemes and its application in animal improvement. 10
- (c) Describe the different types of cross breeding and its application in animal breeding. 10
3. (a) Current livestock breeding policy of India and your state. 10
- (b) Write in detail about various methods to estimate the sire index. 10
- (c) Discuss in brief the various methods of conservation, their feasibility to hilly breeds of livestock. 10

4. (a) Define Blood. Enlist the different constituents of it. 10
- (b) Describe the mechanism of Blood coagulation in animals. 10
- (c) What are endocrine glands ? Discuss briefly the role of endocrine glands in health and diseases. 10
5. Write short notes on any *three* of following :
- (a) Biochemical tests for urinary dysfunction. 10
- (b) Hardy-Weinberg law. 10
- (c) Rules and regulations for prevention of cruelty to animals. 10
- (d) Outline the main steps in abattoir inspection and explain why inspection is important for food safety. 10

6. (a) Write the general principles associated with use of cytotoxic drugs in animals. 10
- (b) What is anti-microbial drug resistance ? Briefly explain the principle of chemotherapy in microbial infection in the livestock. 10
- (c) Discuss the zoonotic diseases that are transmitted from milk. Enlist the essential steps in hygienic milk production. 10
7. (a) Enlist the infectious diseases that affect cattle along with the name of pathogen. 10
- (b) A group of cattle are suffering from blood stained and high fever diarrhoea. Name the disease and describe the etiology, pathogenesis, clinical finding, prevention and treatment of the disease. 10

(c) Write *three* diseases of poultry commonly observed in your place and mention their preventive measures. 10

8. (a) Classify the extension teaching methods. Discuss the different types of group teaching methods. 10

(b) Discuss the various Animal Husbandry Development Programmes in brief. 10

(c) What is the concept of cooperatives ? Discuss the history and role of cooperatives in dairy development in India. 10