

ANIMAL HUSBANDRY AND VETERINARY SCIENCE (CODE NO. 02)

1. General

Importance of livestock in Agriculture. Biological relationship between soil, plant and animal. Mixed farming. Livestock and milk production statistics with special reference to Madhya Pradesh

2. Genetics and Animal Breeding

Elements of genetics and breeding as applied to improvements of livestock. Breeds of indigenous and exotic cattle, Cow, buffaloes, goats, sheep, pigs and poultry and their potential for milk, eggs, meat and wool production. Livestock improvements in Madhya Pradesh. Artificial insemination and its role in speedy improvement of livestock.

3. Nutrition

Classification of animal feeds. Feeding standards. computation of ration. Commercial feeds. Conservation of fodder. Nutritional disorders. Feed additives use of probiotics.

4. Management

Management of different livestock (cattle, buffaloes, sheep, goat, pig and poultry) livestock records. Economics of livestock production. Wild life management.

Veterinary Science

- (1) Fertility and sterility in Animals, embryo transfer technology
- (2) Veterinary hygiene vis-à-vis public health
- (3) Principle of immunity and immunization (Preventive inoculations against common infectious diseases of livestock i.e. rinderpest, foot and mouth disease, anthrax black quarter, hemorrhagic septicemia, PPR, Ranikhet, fowl pox and avian influenza etc.)
- (4) Etiology, diagnostic symptoms and treatment of major livestock diseases.

- (a) Cattle - Infectious diseases as anthrax, foot and mouth disease, rinderpest, black quarter, tuberculosis Johne's disease, theileriasis and trypanosomiasis.
Non-infectious diseases as tympanites, milk fever.
 - (b) Sheep and goats: Enterotoxaemia, CPPP, PPR in goats.
 - (c) Poultry - Ranikhet, coccidiosis, fowlpox, avian leucosis, Marek's disease, avian influenza, infectious bursal disease and salmonellosis.
 - (d) Swine - Swine erysipelas, salmonellosis, and hog cholera.
Parasitic diseases of animals and poultry caused by trematodes, nematodes and cestodes.
5. (1) Poisons used for killing animals. Pesticide toxicity in animals and birds.
- (2) Drugs used for doping of racehorses, and the techniques of detections.
 - (3) Drugs used to tranquilize wild animals, as well as animals in captivity. Main diseases in wild animals.
 - (4) Quarantine measures prevalent in India and abroad and improvements therein.

Dairy Science

- (1) Study of milk-composition, its physical properties and nutritive value.
- (2) Quality control of milk, common tests and legal standards.
- (3) Utensils, equipments and their cleaning.
- (4) Organization of dairy, processing of milk and distribution, Co-operation and marketing.
- (5) Manufacture of common milk products and quality control.
- (6) Routine dairy operations.
- (7) Role of microorganisms in milk and dairy products, with special reference to their keeping quality.
- (8) Milk-borne diseases vis-à-vis public Health.