

**Animal Husbandry and Veterinary Science Syllabus
for selection of Veterinary physician (Contract),
Chhattisgarh Forest Department**

Total Questions -150

Total Marks - 150

The Animal Husbandry and Veterinary Science Syllabus for for selection of Veterinary physician (Contract), Chhattisgarh Forest Department Preliminary Exam-2018 is given below. The examination will be held on ...23.09.2018... by the Chhattisgarh Vyavsayik Pariksha Mandal. Acquaint yourself with the break-up of Animal Husbandry and Veterinary Science syllabus into various sections.

PART-I

Marks-75

1. Animal Nutrition: Metabolism of carbohydrates, proteins and fats. Requirements for maintenance, growth and production of milk, meat, work, eggs and wool. Mineral and trace elements Metabolism, source and role of minerals and trace elements, their requirements for growth and production, deficiency syndromes, Vitamins, their sources, requirements, role in metabolism and deficiency syndromes. Hormones and growth stimulating factors, their role in animal metabolism. Feedings standards and measures of feed energy. Limitations of different feeding systems. Feeding practices in livestock in normal and drought conditions.
2. Genetics and Animal Breeding: Probability applied to Mendelian inheritance. Hardy Weinberg law. Poly morphism. Inheritance of quantitative traits. Casual components of variation. Biometrical models and covariance between relatives. The theory of path coefficient applied to genetic analysis. Heritability. Repeatability. Estimation of additive, non-additive and environmental variance. Genetic and environmental correlations. Mating systems, inbreeding, outbreeding Measurement of inbreeding, Aid to selections. Breeding for threshold traits. Methods of selection. Selection index, Evaluation of genetic gain, correlated response in selection. Reciprocal. Recurrent selection. Hybridization. Choice of effective breeding plan.
3. Semen quality, preservation and Artificial Insemination: Components of semen, composition of spermatozoa. Chemical and physical properties of ejaculated semen, factors affecting semen in vivo and in vitro. Factors affecting semen preservation. Composition of diluents, sperm concentration. Transport of diluted semen, Deep Freezing techniques in cow sheep and goats swine and poultry.

4. Livestock production and Management: Comparison of dairy farming in India with advanced countries. Dairying under mixed farming and as a specialised farming, economic dairy farming, starting of a dairy farm. Capital and land requirement organisation of the dairy farm. Procurement of goods, opportunities in dairy farming, factors determining the efficiency of dairy animal Herd recording, budgeting, cost of milk production, pricing policy; Personnel Management.
5. Milk Technology: Organization of rural milk procurement, collection and transport of raw milk. Quality testing and grading raw milk, Grades of whole milk, skimmed milk and cream. Defects in processing, packaging storing, distribution and marketing of milk and milk products and their remedial measures. Nutritive properties of pasteurised, standardized, double toned, sterilized, homogenized, reconstituted, recombined and flavoured milk. Preparation of cultured milks. Cultures and their management. Vitamin D, acidified and other special milks, Legal standards and sanitation requirements for clean and safe milk and for the milk plant equipments.
6. Extension: Different methods adopted to educate farmers under rural conditions. Utilisation of fallen animals for profit-extension education, etc. Design Trysem: Different possibilities and method to provide self-employment to educated youth under rural condition. Cross breeding as a method of upgrading the local cattle.
7. Hygiene: Hygiene includes
 - a. Veterinary Hygiene with respect to water, air and habitation.
 - b. Duties and role of Veterinarians in a slaughter house to provide meat that is produced under ideal hygienic conditions.
 - c. By-Products from slaughter-houses and their economic utilisation.
 - d. Methods of collection, preservation and processing of hormonal glands for medicinal use.

PART-II

Marks-75

1. Anatomy: Anatomy of ox and fowl. Histological techniques freezing, paraffin embedding etc. Common histological stains. Preparation and staining of blood films. Mammalian Histology.

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2. Physiology: Parental and post natal growth. Hormonal control of development of udder, milk and reproduction in males and females, Environmental factors affecting animals, methods of ameliorating environmental stress. Physiological relations and their regulations; mechanism of adaptation; environmental factors and regulatory mechanisms involved in animal behavior, Methods, of controlling climatic stress. Physiology of circulation, respiration excretion, digestion and reproduction.
3. Pharmacology: Pharmacology of drugs acting on gastrointestinal cardio-vascular, urinary, respiratory, nervous and genital system and endocrines. Therapeutic agents against bacteria, Protozoa fungi, parasites and insects, including their mechanism of action. Common toxic compounds and plants their effects and treatment.
4. Diseases: Principles of immunity and immunization. Common livestock and poultry diseases caused by bacteria, fungi, protozoa, viruses and parasites pertaining to their causal agents, epidemiology, symptoms, diagnostic methods, treatment and prevention Zoonotic diseases. Principles of epidemiology. Public Health aspects of food products of animal origins (meat, eggs, milk and fish) their inspection and marketing.
5. Jurisprudence: Jurisprudence in veterinary practice Common offences to wards animals. Common adulteration practices regarding milk and milk product and meat and their detection.
6. Surgery: Anesthesia in animals. Common surgical affections of different systems of the body, diseases of locomotion system with special reference to soundness, health identification Principles of radiology. Electrotherapy in Veterinary practice.

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