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university

**SYLLABUS**  
**OF**  
**CERTIFICATE IN VETERINARY**  
**AND ANIMAL SCIENCES**

# **Introduction to Animal Management and Nutrition**

**Paper Code – CVAS 111**

**Cr. Hrs- 3 (2+1)**

**Maximum Time : 3 Hrs.**

**University Examination : 70 Marks  
Continuous Internal Assessment : 30 Marks**

**Total Marks : 100**

**Minimum Pass Marks : 40%**

## **Instruction for paper setter**

- 1. The question paper will consist of two sections namely A & B. Both sections are compulsory.**
- 2. Section A will comprise of 15 short answer type questions ( 3 questions from each unit).The candidate have to attempt any 10 questions. Each question will carry 2.5 marks.**
- 3. Section B will contain 5 descriptive type questions( one question from each unit ).The candidate have to attempt any three questions. Each question will carry 15 marks.**

### **UNIT - I**

- Importance of animal husbandry in economy of India and Rajasthan.
- Selection of different types of dairy animals.

### **UNIT - II**

- Identification and characteristics of major indigenous and exotic breeds in India
- Controlling the domestic animals, methods of marking

### **UNIT - III**

- Determination of age, weight, temperature, pulse and respiration rates of the animals
- Castration

### **UNIT - IV**

- Care and management of cattle and buffalo at different stages such during pregnancy, parturition
- Care and management of calves, heifers, milk, dry animals bulls

### **UNIT - V**

- Need, importance and construction of house for different type of animals

- Major components of animal feed viz. water, carbohydrates, lipids, proteins, mineral, vitamins and trace elements
- Preservation of fodder - Silage and hay making

### **Practical**

Maximum Time : 3 Hrs.  
Total Marks : 100  
Minimum Pass Marks : 40%

University Examination : 80 Marks  
Continuous Internal Assessment : 20 Marks

- Identification of different breeds of the dairy animals, determination of age, weight temperature, pulses and respiration rate of the animals
- Preparing the site plans of housing for animals
- Methods of making the animals
- Preservation of fodder - Silage and hay making Cultivation of deferent fodder crops
- Silage and hay making

# Minor Surgery

**Paper Code – CVAS 112**

**Cr. Hrs- 3 (2+1)**

**Maximum Time : 3 Hrs.**

**University Examination : 70 Marks  
Continuous Internal Assessment : 30 Marks**

**Total marks : 100**

**Minimum Pass Marks : 40%**

## **Instruction for paper setter**

- 1. The question paper will consist of two sections namely A & B. Both sections are compulsory.**
- 2. Section A will comprise of 15 short answer type questions ( 3 questions from each unit ).The candidate have to attempt any 10 questions. Each question will carry 2.5 marks.**
- 3. Section B will contain 5 descriptive type questions ( one question from each unit ).The candidate have to attempt any three questions. Each question will carry 15 marks.**

## **UNIT - I**

- Brief study of sepsis and asepsis and its importance in animals.

## **UNIT – II**

- Classification of wounds and treatments of injuries and trauma in animals.
- Methods of sterilization of surgical instruments and clothing.

## **UNIT – III**

- Brief study of anesthesia in animals.

## **UNIT – IV**

- Introduction of surgical instruments generally used in routine works of veterinary practice.
- Introduction of suturing materials used for suturing of wounds.

## **UNIT – V**

- Dressing of wounds (simple and postoperative) of animals.
- First aid treatment of fractures and dislocations in animals.

## **Practical**

Maximum Time : 3 Hrs.

Total Marks : 100

Minimum Pass Marks : 40%

University Examination : 80 Marks

Continuous Internal Assessment : 20 Marks

- Application of trochar and canulla in animals.
- Handling of autoclave, formaline sterilization etc.
- Opening and drainage of septic wound cysts and their dressing in animals.
- Use of local anesthesia in animals.
- Handling of burdizo instrument for castration of animals.
- Tattooing and branding of animals.

# MEDICINE

**Paper Code – CVAS 113**

**Cr. Hrs- 3 (2+1)**

**Maximum Time : 3 Hrs.**

**University Examination : 70 Marks  
Continuous Internal Assessment : 30 Marks**

**Total marks : 100**

**Minimum Pass Marks : 40%**

## **Instruction for paper setter**

- 1. The question paper will consist of two sections namely A & B. Both sections are compulsory.**
- 2. Section A will comprise of 15 short answer type questions ( 3 questions from each unit ).The candidate have to attempt any 10 questions. Each question will carry 2.5 marks.**
- 3. Section B will contain 5 descriptive type questions( one question from each unit ).The candidate have to attempt any three questions. Each question will carry 15 marks.**

## **UNIT - I**

- History of medicine.
- Diagnostic methods  
Palpation, percussion, auscultation, Recording of temperature, pulse rate, respiration rate,  
Prognosis of diseases, death

## **UNIT – II**

- Clinical Study
- Burns, scalds and cold, Effect of heat and cold in animals.

## **UNIT – III**

- Poisoning symptoms and treatment
- Gastro-intestinal disorders and treatments
- Respiratory disorders and treatment
- Nervous disorders and treatment

## **UNIT – IV**

- Urino-genital disorders and treatments
- Metabolic disorders and treatments

- Deficiency diseases and treatment
- Skin diseases and treatment

#### **UNIT – V**

- Brief study of bacterial, viral, fungal diseases and their treatments
- Blood parasitic, endo parasitic and ecto parasitic diseases and treatment
- Pre-natal, natal and post natal disturbances of and treatment.

#### **Practical**

Maximum Time : 3 Hrs.  
Total Marks : 100  
Minimum Pass Marks : 40%

University Examination : 80 Marks  
Continuous Internal Assessment : 20 Marks

- Preparation of case study records.
- Vaccination of animals.
- Examination of samples of blood, urine, stool, sputum and semen etc.

# **ANIMAL BREEDING AND DAIRY EXTENSION EDUCATION**

**Paper Code – CVAS 114**

**Cr. Hrs- 3 (2+1)**

**Maximum Time : 3 Hrs.**

**University Examination : 70 Marks  
Continuous Internal Assessment : 30 Marks**

**Total marks : 100**

**Minimum Pass Marks : 40%**

## **Instruction for paper setter**

- 1. The question paper will consist of two sections namely A & B. Both section are compulsory.**
- 2. Section A will comprise of 15 short answer type questions ( 3 questions from each unit ).The candidate have to attempt any 10 questions. Each question will carry 2.5 marks.**
- 3. Section B will contain 5 descriptive type questions ( one question from each unit ).The candidate have to attempt any three questions. Each question will carry 15 marks.**

## **UNIT - I**

Animal cell and its constituents, mendals law of heredity, maturity symptoms in animals, eustrus cycle and symptoms of heat, role of hormones in estrus and heat, pregnancy and parturition.

## **UNIT - II**

Artificial insemination - Collection storage and transportation of semen, apparatus used in AI and methods of AI. Breed up gradation – need, concept and methods.

## **UNIT - III**

Introduction to dairy extension – its concept, need, levels, philosophy and objective

## **UNIT - IV**

Teaching – learning process, principles of extension, motivation in extension, competencies needed by an extension agent.

Communication methods – individual methods, group methods and mass communication methods.

## **UNIT - V**

Rural sociology – family , group, social stratification and leadership, Audio visual aids – classification, solution and application, Dairy and animal husbandry extension system in Rajasthan. Major animal husbandry and dairy development programmes in Rajasthan.

## **Practical**

Maximum Time : 3 Hrs.  
Total Marks : 100  
Minimum Pass Marks : 40%

University Examination : 80 Marks  
Continuous Internal Assessment : 20 Marks

- Microscopic study of animal cell
- Selection and culling of dairy animals
- Heat determination
- Artificial insemination
- Planning the animal fairs, exhibitions and other extension activities.
- Representation of activities of various departments by models or charts
- Performing extension activities run by animal husbandry department in Rajasthan such as herd registration, bull registration, etc.
- Preparing and using audio-visuals aids

# ANATOMY AND PHYSIOLOGY

**Paper Code – CVAS 115**

**Cr. Hrs- 3 (2+1)**

**Maximum Time : 3 Hrs.**

**University Examination : 70 Marks  
Continuous Internal Assessment : 30 Marks**

**Total marks : 100**

**Minimum Pass Marks : 40%**

## **Instruction for paper setter**

- 1. The question paper will consist of two sections namely A & B. Both sections are compulsory.**
- 2. Section A will comprise of 15 short answer type questions ( 3 questions from each unit ).The candidate have to attempt any 10 questions. Each question will carry 2.5 marks.**
- 3. Section B will contain 5 descriptive type questions ( one question from each unit ).The candidate have to attempt any three questions. Each question will carry 15 marks.**

## **UNIT – I**

Introductory study of skin, bones, muscles, blood vessels of dairy animals.

## **UNIT – II**

Structure and Introductory study of physiology of

- Digestive system,
- Respiratory system,

## **UNIT – III**

Structure and Introductory study of physiology of

- Cardio vascular system

## **UNIT – IV**

Structure and Introductory study of physiology of

- Nervous system,

## **UNIT – V**

- Details study of male and female genitalia, formation of sperm and ova, fertilization and development of foetus. Structure of udder, teats and physiology of milk let down.

## **Practical**

Maximum Time : 3 Hrs.  
Total Marks : 100  
Minimum Pass Marks : 40%

University Examination : 80 Marks  
Continuous Internal Assessment : 20 Marks

Preparation of charts and models depicting structure functioning of different systems of animal body.

# PHARMACOLOGY

**Paper Code – CVAS 116**

**Cr. Hrs- 3 (2+1)**

**Maximum Time : 3 Hrs.**

**University Examination : 70 Marks  
Continuous Internal Assessment : 30 Marks**

**Total marks : 100**

**Minimum Pass Marks : 40%**

## **Instruction for paper setter**

- 1. The question paper will consist of two sections namely A & B. Both sections are compulsory.**
- 2. Section A will comprise of 15 short answer type questions ( 3 questions from each unit ).The candidate have to attempt any 10 questions. Each question will carry 2.5 marks.**
- 3. Section B will contain 5 descriptive type questions ( one question from each unit ).The candidate have to attempt any three questions. Each question will carry 15 marks.**

## **UNIT - I**

- The introductory definitions of Pharmacology.
- Brief study of Pharmaceutical processes.

## **UNIT – II**

- Composition of drugs.
- Weight and measures.

## **UNIT – III**

- Signs, symbols, terms and abbreviations used in prescribing drugs and writing of prescription and dispensing of drugs.

## **UNIT – IV**

- Factors modifying doses and action of drugs.
- Site of drug action, mechanism of drug action, bases of drug action and result of drug action.

## **UNIT – V**

- Brief study Pharmaco-therapeutic classification of official and non official drugs
- Introduction and brief study of inorganic and organic material-medica and therapeutic.

## **Practical**

Maximum Time : 3 Hrs.  
Total Marks : 100  
Minimum Pass Marks : 40%

University Examination : 80 Marks  
Continuous Internal Assessment : 20 Marks

- Preparation of aqua, mixtures, liniments, unguiments according to prescription
- Handling of apparatus, commonly used in pharmacy.