

**Proceedings of the 266<sup>th</sup> Meeting of Board of Studies of College of Veterinary Sciences held on 28.09.2019 at 10.00 AM in the Committee Room of Dean, COVS, LUVAS, Hisar.**

The followings were present:

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| 1. Dr. D. P. Sharma, Dean, COVS & CODST       | -Chairman              |
| 2. Dr. Harish Gulati, Registrar, LUVAS, Hisar | -Invitee               |
| 3. Dr. S. K. Gupta, COE                       | -Invitee               |
| 4. Dr. Sandeep Gera, Director IPVS            | -Invitee               |
| 5. Dr. Sushila Maan, HOD ABT                  | -Member                |
| 6. Dr. D. S. Dalal, Rep. HOD AGB              | -Member                |
| 7. Dr. B. S. Tewatia, Rep. HOD ANN            | -Member                |
| 8. Dr. D. S. Bidhan, Rep. HOD LPM             | -Member                |
| 9. Dr. S. S. Ahlawat, HOD LPT                 | -Member                |
| 10. Dr. S. P. Dahiya, HOD LFC                 | -Member                |
| 11. Dr. Ashok Kumar, Rep. HOD VCC             | -Member                |
| 12. Dr. S. S. Snagwan, HOD VAHEE              | -Member                |
| 13. Dr. Pawan Kumar, HOD VAN                  | -Member                |
| 14. Dr. R. K. Chandolia, HOD VGO              | -Member                |
| 15. Dr. Ricky Jhamb, Rep. HOD VMD             | -Member                |
| 16. Dr. Archana Sharma, Rep. HOD VMC          | -Member                |
| 17. Dr. A. K. Sangwan, HOD VPA                | -Member                |
| 18. Dr. Gulshan Narang, HOD VPP               | -Member                |
| 19. Dr. M. K. Rose, HOD VPB and Rep.COE       | -Member                |
| 20. Dr. Ashok Kumar, HOD VPHE                 | -Member                |
| 21. Dr. Ashok Kumar, HOD VSR                  | -Member                |
| 22. Dr. Vinod Kumar, HOD VPT                  | -Member Secretary, BOS |

At the outset, the Chairman, Dr. D. P. Sharma, Dean, COVS welcomed all members of Board of Studies, invitee and representatives of HODs present in 266<sup>th</sup> meeting of Board of Studies. The following decisions were taken after detailed deliberations.

**Agenda Item No. 1. Confirmation of proceedings of 265<sup>th</sup> meeting of BOS held on 27.07.2019 at 08.00 AM**

The proceedings were confirmed

**Agenda Item No. 2. Modification in essential qualification for the post of Sr. Scientist, Incharge, Disease Free Small Animal House.**

It was decided that the M.V.Sc. and Ph.D degrees in the discipline of Veterinary Gynaecology & Obstetrics should be included as the essential qualifications in addition to other existing qualifications for the post of Sr. Scientist, Incharge, Disease Free Small Animal House.

### Agenda Item No. 3. Revised Academic Calendar- IIVER, Bahu Akbarpur, Rohtak

The Board of Studies, COVS, LUVAS deliberates and decides the issues related to College of Veterinary Sciences, LUVAS, Hisar. Since IIVER, Bahu Akbarpur is an affiliated college to LUVAS, Hisar, decision regarding revision of academic calendar of IIVER, Bahu Akbarpur may be taken by the Registrar, LUVAS, Hisar.

### Supplementary Agenda

#### Agenda Item No. 4. Proposed new course content for theory and practical for VLD diploma course, IPVS-2019-2020.

The following course contents for VLD Diploma Courses were approved as submitted by Director, IPVS after incorporating suggestions which came up during discussion. It is to be implemented from Academic Session, 2019-20.

Course	Old Course Contents	Approved Course Contents
<b>VLDD -I</b>  INTRODUCTORY ANATOMY OF THE DOMESTIC ANIMALS,  1+1	<b>Theory VLDD -I</b>  Introduction to arrangement of different bones of axial and appendicular skeleton of ox with comparison to that of horse (only identification). Classification of bones.  Introduction to different organs of digestive, respiratory, urinary, male and female genital systems circulatory and central nervous systems of ox.	<b>Theory VLDD –I</b>  Preparatory exposure of following topics-  Structure and classification of Cell and tissue.  Bone definition: Classification and general functions of bones, identification of different bones of axial and appendicular skeleton of ox only, study of joints, skin and appendages.  General awareness about smooth, cardiac and striated muscles.  Introductory anatomical structures of digestive system ox and horse: Mouth, tonsil, pharynx, oesophagus, ruminant and non-ruminant stomach, intestines and associated glands.  Brief introduction of respiratory structures of ox and horse: Nostril, nasal cavity, sinuses, pharynx, larynx, trachea, lungs, thorax and pleura.  General awareness about Circulatory system: heart, blood, arteries and veins, portal circulation, lymphatic system and blood cells.  Brief introduction of structures of excretory system: kidney and its structure, ureter, bladder, urethra, structure of nephron etc. of ox and horse.  Introduction to Nervous system: Brain, Spinal cord.  Introductory knowledge of structures of female genital system of cow and mare - ovary, uterine tube, uterus, vagina, vulva.

		<p>Introductory knowledge of Anatomical structures of Male genital system of ox and horse - scrotum, testis, epididymis, ductus deferens, penis, accessory sex glands. Preliminary knowledge of Structure of teat and udder.</p> <p>Skills for identification of species specific structure of livestock having clinical significance.</p>
	<p><b>Practical VLDD -I</b> Identification of bones and different organs of various systems of ox.</p>	<p><b>Practical VLDD –I</b> Practical knowledge only of following topics-</p> <p>Organization of ox body. Cells and tissues of ox body. Introduction to body systems: introduction to bones of Thoracic limb. Bones, muscle of ox having clinical significance, Pelvic limb bones. Brief introduction to bones of Skull, axial skeleton, sternum, ribs, and trunk. Introduction of Cardiovascular system – heart and blood vessels of clinical importance. Brief introduction to respiratory system, introduction to digestive system – simple and compound stomach. Brief introduction to joints, skin, horn, hoof, teeth. Brief introduction to genital system male/female. Brief introduction to urinary system. Salient differences (only 2) of bones of cattle with horse.</p>
<p><b>VLDD- II</b>  INTRODUCTORY PHYSIOLOGY OF DOMESTIC ANIMALS,  1+1</p>	<p><b>Theory VLDD- II</b> Physiological functioning of digestive system, respiratory system, cardiovascular system, renal system, reproductive system and nervous system of domestic animals.</p>	<p><b>Theory VLDD- II</b> Basic theoretical coverage only of following topics-</p> <p>General awareness about Physiology of Respiratory System: Functional structure of respiratory tract, functions of respiration, transport and exchange of gases.</p> <p>Preliminary knowledge of Physiology of Digestive System: Functional structure of digestive system in various species of domestic animals, Introduction to pre-hension, mastication, swallowing, GIT movements, Introduction to digestion and absorption of carbohydrates, protein and lipids in ruminants and non-ruminants, Introduction to functions of liver, gall bladder and pancreas in digestion. Common awareness about Physiology of blood and cardiovascular System: Introduction to blood and its constituents with their functions, Functional structure of heart and introduction to blood circulation.</p> <p>Introductory facts of Physiology of Excretory System: Functional structure of excretory organs in domestic animals, Introduction to formation and concentration of urine. Introduction to role of</p>

		<p>kidneys in regulation of body fluid volume and composition.</p> <p>Introduction to CSF, Lymph and synovial fluid. Overview to functional structure of major endocrine glands in domestic animals.</p> <p>Functions of hormones secreted from major endocrine glands in domestic animals. Nervous system: Introduction to functional structure and organization of the nervous system, function of nervous system. Introduction to sense organs concerned with vision, hearing, olfaction and skin. Introduction to functional structure of mammary gland/udder, Synthesis, secretion and let-down of milk, milk composition.</p> <p>Muscular system: Introduction of functional structure of different muscles, functions of different muscles. Salient differentiating physiological features of equine and avian physiology in respect to different systems.</p> <p>Students will acquire skill to enable assistance in recording normal physiological parameters.</p>
	<p><b>Practical old content VLDD- II</b></p> <ol style="list-style-type: none"> <li>1. General precautions to be taken in physiology laboratory.</li> <li>2. Collection of blood from domestic animals.</li> <li>3. Separation of plasma and serum from blood.</li> <li>4. Methods of collection of urine in domestic animals.</li> <li>5. Macroscopic and microscopic examination of urine.</li> <li>6. Methods of collection of rumen liquor.</li> <li>7. Measurement of ruminal movements.</li> <li>8. Recording of body temperature.</li> <li>9. Recording of respiration rate.</li> <li>10. Recording of heart rate.</li> <li>11. Measurement of growth in animals</li> </ol>	<p><b>Practical VLDD- II</b></p> <p>Practical exposure of following topics-</p> <p>General precautions to be taken in physiology laboratory, Labelling of samples in physiology laboratory, Measurement of weight and growth in domestic animals, Handling of microscope and other commonly used equipment in Veterinary Physiology Laboratory, Collection of blood from domestic animals, Preservation of blood/plasma and use of anti-coagulants, Separation of plasma and serum from blood, Methods of collection of urine in domestic animals, Preservation of urine sample, Macroscopic and microscopic examination of urine, Methods of collection of rumen liquor, Measurement of ruminal movements, Recording of body temperature, Recording of respiration rate, Recording of heart/pulse rate.</p>

<p><b>VLDD- III</b>  <b>ELEMENTAR</b>  <b>Y</b>  <b>PRINCIPLES</b>  <b>OF ANIMAL</b>  <b>NUTRITION,</b></p> <p>1+1</p>	<p><b>Theory VLDD- III</b>  Elementary description of nutrients and their requirements for maintenance, growth, reproduction, lactation, egg production, wool production and work production: General principles of feeding and common practices for different categories of live-stock: A brief description of production of common fodder crops including pastures and knowledge about common grasses. Preparation, preservation and storage of hay and silage. Common feed and fodder, their classification and identification</p>	<p><b>Theory VLDD- III</b>  Introductory coverage only of following topics-</p> <p>Nutritional terms and their definitions. Introductory reference to Feeds and Fodder, Dry Roughages, Green Fodder, Ingredients of Concentrate, Feed Supplements, Additives, Non-Conventional Feed Resources, Agro Industrial by products, Tree Fodder. Role of Water, Carbohydrate, Lipid and Protein in Animal Nutrition. Requirements for maintenance, growth, reproduction, lactation, egg production, wool production and work/draft. Primary methods of Nutritional Evaluation of Feed. Initial Concept of green and dry fodders for kharif and rabi. Opening note on grasses, hay, haylage, silage, blocks, ammonification of straw, their classification, availability and importance for livestock and poultry production. Various physical, chemical and biological methods of feed processing for improving the nutritive value of inferior quality roughages. General understanding about preparation, storage and conservation of livestock feed through silage and hay and their uses in livestock feeding. Primary knowledge of Importance of minerals (major and trace elements) in health and production, their requirements and supplementation in feed. Importance of vitamins in health and production, their requirements and supplementation in feed. General awareness about feed additives in the rations of livestock and poultry. Common principles of computation of rations. General statement about formulation of rations and feeding of dairy cattle and buffaloes during different phases of growth, development and production (neonate, young, mature, pregnant, lactating, and dry animals; breeding bull and working animals). General account about formulation of ration and feeding of sheep during different phases of growth, development and production (milk, meat, and wool). Introductory knowledge of formulation of ration and feeding of goat during different phases of growth, development and production (milk, meat and hairs). Formulation of ration and feeding of poultry for egg production. Common account about balanced ration and its characteristics.</p> <p>Outline of feeding of diseased animals. Introductory knowledge of Commonly used feed and forages for equines. Role of minerals and vitamins in equine feeding. Nutritional problems in equine. Skills to enable students to formulate ration for various species of animals including ruminants and non-ruminants. Hands on training in Feed Mill</p>
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		<p>operations, compounding of feed and least cost feed formulations, rea specific UMMB/feed blocks, proximate analysis of the various feed ingredients, the role of various nutrients viz. carbohydrate, protein, fat, mineral, vitamin on animal health and production.</p> <p>Skill acquisition for guiding villagers regarding feed, fodder and cattle to increase milk yield, procurement of seeds for demonstration plots, for improvement of poor quality available feed fodder within reasonable cost.</p>
	<p><b>Practical VLDD- III</b> Elementary knowledge of computation of ration for different types of live-stock and poultry: Silage and hay making.</p>	<p><b>Practical VLDD- III</b> Basic hands-on exposure only of following topics</p> <p>Familiarization of various feed stuffs and fodder and their selection (Kharif and Rabi), Demonstration of laboratory equipment. Silage preparation, Hay preparation, Identification of grasses, green fodder in kharif and rabi. Identification of constituents of concentrate mixture, Ammonification of rice/wheat straw, Urea blocks preparation, storage, conservation of feed, preparation of mineral mixture, Identification of feed additives, Principles of computation of ration for ruminant and poultry, Sampling of feed analysis, Sampling of silage.</p>
<p><b>VLDD-IV</b> Introduction to Livestock &amp; Poultry Management, 2+1</p>	<p><b>Theory VLDD-IV</b> Important definitions related to animal management, care of animals (Cattle, Sheep, goat and Swine) during and after parturition, housing of animals: Routine management practices like grooming, washing, dipping, casting, shearing and exercising: Raising and feeding of farm animals: Signs of health in different animals: Care of sick animals: Milking management: Control of vices of animals: Introduction to feeding and management of horses and camels. Importance of Poultry farming: Elementary knowledge of incubation and hatchery management; Management of chicks,</p>	<p><b>Theory VLDD-IV</b> Preparatory exposure only of following topics</p> <p>Taxonomy and classification of common domestic animals and brief livestock statistics. General definitions related to animal management. Brief introduction of Breeds of different species (cattle, buffalo, sheep, goat, horse and pig). Introduction to Care and management of animals (cattle, buffalo sheep, goat and swine) during and after parturition. General Economic traits of dairy animals. Care and management of calf, heifer, milch animals and breeding bulls. Skill in mother bull production. Basic Housing systems of animals- loose and conventional housing systems, housing requirements of animals. Basics of Routine management practices like grooming, washing, dipping, casting, shearing and exercising. Introduction of Raising and feeding of farm animals. Classification of feed and fodder. Preservation of fodder. Common Signs of health in different animals, isolation and quarantine, General Care of sick animals and prevention of disease. Basic Milking management- various methods of milking, factors affecting quality and quantity of</p>

	<p>growers and layers: Poultry housing and feeding: Vaccination against poultry diseases.</p>	<p>milk production. Control of vices of dairy animals, equines; their prevention and control. Basic feeding and management of horses and camels. General foot and hoof care in equines. Introductory knowledge of management &amp; breeding of horses and camels. Outline of importance and scope of poultry farming. Outline of classification of various species of poultry. Elementary introduction to reproductive system and digestive system of fowl. Outline of Structure and composition of egg, Criteria for selection and care of hatchable eggs, Introductory knowledge of Incubation of eggs and basic hatchery management practices, Importance and steps involved in pedigree hatching. Basic knowledge of poultry housing. General aspects of poultry feeding. Basics of Poultry brooding and management of chicks, Selection and culling of chickens. Debeaking of birds and its importance. General Management of growers and layers. General management practice during poultry diseases at farm, Prevention and control of poultry diseases. Maintenance of poultry records.</p> <p>Skill related to different management practices in livestock and poultry at farm, gaushala &amp;/or in farmers' courtyard, entrepreneurial skills for development of poultry farm.</p>
	<p><b>Practical VLDD-IV</b> <b>Live Stock</b> Visit to various animal farms. External body parts of different animals. Methods of approaching and handling animals (casting, lifting of hind leg, foreleg, etc). General managerial practices followed in the farm (dipping, spraying, grooming, exercising, Debudding, castration, etc). Methods of identification (Branding, tagging, tattooing, ear notching, etc). Determination of age. Determination of body weight. Familiarization with daily farm operations. Detection of vices and control measures. Feeding of animals. Milking of animals. Detection of heat in animals.</p>	<p><b>Practical VLDD-IV</b> Introductory practical exposure of following topics- <b>Livestock:</b> Visit to various animal farms: External body parts of different animals, Methods of approaching and handling animals (casting, lifting of hind leg, foreleg etc.), General management practices followed in the farm (dipping, spraying, grooming, exercising, disbudding, castration, etc), methods of identification (branding, tagging, tattooing, ear notching, etc). Determination of age in farm animals, Determination of body weight in dairy animals, Familiarization with daily farm operations, Detection of vices and control measures. Feeding of animals- Preservation of fodder, Milking of animals- methods of milking, Detection of heat in different species, Methods of recording temperature, pulse and respiration and First aid and methods of administration of medicine, Record keeping in the farm. <b>Poultry:</b> Visit of poultry farm: Study of external body parts of birds and Handling and identification of birds, Study of the reproductive system of fowl,</p>

	<p>Methods of recording temperature, pulse and respiration. First aid and method of administration of medicine. Record keeping in the farm.</p> <p><b>Poultry</b>          Survey of the Poultry farm. Handling and identification of Birds. Study of External body parts of birds. Breeds and Varieties of various species of poultry. Study of the reproductive system of fowl. Study of the digestive system of fowl. Structure and composition of egg. Selection and care of hatchable eggs. Incubation of eggs and hatching of chicks. Pedigree hatching. Brooding and rearing of Chicks. Debeaking of birds. Selection and culling of chickens. Poultry housing. Poultry feeding. Prevention and control of poultry diseases. Maintenance of poultry records.</p>	<p>Study of the digestive system of fowl, Structure and composition of egg, Selection and care of hatch able eggs, Incubation of eggs and hatching of chicks, Pedigree hatching, Brooding and rearing of chicks, Debeaking of birds, Selection and culling of chickens, Poultry housing, Poultry feeding, Prevention and control of poultry diseases.</p>
<p><b>VLDD-V</b></p> <p>INTRODUCTION TO ANIMAL BREEDING,</p> <p>1+1</p>	<p><b>Theory VLDD- V</b></p> <p>General terms used in animal breeding.</p> <p>Important breeds of live-stock (Cattle buffalo, sheep, goat and swine) and poultry, their origin distribution and breed characteristics.</p> <p>Basis of selection.</p> <p>Selection of a Breeding Bull and a Dairy Cow/Buffalo.</p> <p>Methods of selection.</p> <p>Economic utility characters of different species of live-stock and poultry.</p>	<p><b>Theory VLDD-V</b></p> <p>General exposure of following topics-</p> <p>General terms used in animal breeding. Specific terms used for young one and adults of different species of livestock and poultry and terms used for the process of parturition of different species of livestock and poultry. Basics of Economic utility characters of different species of live-stock, equine and poultry (All the economic traits related to different species of livestock and poultry). General statement about basis of selection: Individual Selection, Pedigree Selection, Progeny testing, Family Selection. Introduction of Selection of a Breeding Bull and a Dairy Cow/Buffalo (What are the points that should be kept in mind while selecting a breeding bull and breed able cow/buffalo). Introductory understanding of Methods of selection: Tandem Method, Independent culling level method (ICL), Total score Selection index method. Importance of live-stock</p>



	<p>Importance of live-stock record keeping and various types of records.</p> <p>Elementary knowledge of breeding systems.</p>	<p>record keeping and various types of records. Purpose of record keeping, All the records maintained at animal and poultry farm. Elementary facts of breeding systems. Inbreeding and its types. Outbreeding and its different forms.</p>
	<p><b>Practical VLDD- V</b></p> <p>Identification of various breeds of live-stock and poultry. Recording of breeding data. Animal Data Generation. Estimation of Breeding Efficiency. Estimation of Most Probable Production Ability (MPPA).</p>	<p><b>Practical VLDD- V</b></p> <p>Foundation practical exposure only of following topics</p> <p>Exposure will be given on following skills: Important breeds of live-stock (Cattle, buffalo, sheep, goat, swine and equine) and poultry, their origin distribution and breed characteristics. Recording of breeding data (How to record animal data related to production, reproduction and subjective traits). Animal Data Generation (How to generate data from history cum pedigree sheets). Estimation of Breeding Efficiency (Numerical related to breeding efficiency in cattle and buffalo by Wilcox and Tomar formulae). Estimation of Most Probable Production Ability (MPPA), (Numerical related to MPPA in cattle and buffalo). Selection differential, Herd average and Wet average (Numerical related to Selection differential, Herd average and Wet average in cattle and buffalo). Numerical on Progeny Testing. Numerical on Heterosis.</p>
<p><b>VLDD-VI</b></p> <p>ENGLISH,</p> <p>2+1</p>	<p><b>Theory VLDD- VI</b></p> <p>Text for Comprehension entitled ‘The Pointed Vision’ edited by UshaBande and Krishan Gopal, Oxford Univ. Press’</p> <p>b) Vocabulary: Synonyms, Antonyms, Words often confused.</p> <p>c) Applied Grammar: Voice, Narration, Tense</p> <p>d) Letter Writing: Voice, Narration, Tense</p> <p>e) Report Writing (150 words) : 1) PashuMela</p>	<p><b>Theory VLDD- VI</b></p> <p>Text for Comprehension entitled ‘The Pointed Vision’ edited by Usha Bande and Krishan Gopal, Oxford Univ. Press’(Discussion and practice of questions of “The Bet”, “The Gift of Magi”, “The Post-Master”, “The Three Questions”, “The Refugee”, “The Life of Ma Parker”, “The Dying-Detective”, “Under the Banyan Tree”, “That Pagli”, “Am I Blue”).</p> <p>Synonyms, Antonyms, Words often confused. Voice, Narration, Tense.</p> <p>Letter Writing (e.g. Write an application on the following:</p> <p>*To the hostel warden to grant you a seat in the hostel as your home is out of the district and it is very difficult to travel all the day. Transportation</p>

	<p>2) Animal care Clinic</p> <p>3) Inauguration of a Veterinary Clinic.</p> <p>4) Road Accident</p> <p>5) Spread of a disease among animals</p> <p>6) Village Panchayat Meeting.</p>	<p>problem and transportation cost is also very hard to bear for you.</p> <p>*To the editor about animal cruelty.</p> <p>*To M/S ABC Booksellers, Delhi, placing an order for books (Mention at least 4 titles of the books) to be supplied immediately.</p> <p>*To the Commissioner xyz city Corporation, complaining about the poor sanitary conditions and mosquito menace in your locality.</p> <p>*To the Principal of your institute for medical leave.</p> <p>*To the Principal of your institute for change of name, photo etc. in your identity card.</p> <p>*To the Principal of your institute for organizing a welcome /farewell party.</p> <p>*To the Principal of your institute for college leaving certificate.</p> <p>*To the Principal of your institute to get back your original documents.</p> <p>*To the Principal of your institute for issuance of character certificate, and you are Anuj/Anuja, a student of VLDD.</p> <p>*Write a letter to the librarian requesting him/her to issue you a duplicate library card as you have lost the original one).</p> <p>Report Writing (150 words):</p> <ol style="list-style-type: none"> <li>1) Pashu Mela</li> <li>2) Animal care Clinic</li> <li>3) Inauguration of a Veterinary Clinic.</li> <li>4) Road Accident</li> <li>5) Spread of a disease among animals</li> <li>6) Village Panchayat Meeting</li> </ol> <p>The basic purpose is to enhance skills in reading, writing, listening and speaking.</p>
	<p><b>Practical VLDD- VI</b></p> <ol style="list-style-type: none"> <li>1) Listening Comprehension</li> <li>2) Reading Comprehension</li> <li>3) Facing an Interview</li> <li>4) Group Discussion</li> </ol>	<p><b>Practical VLDD- VI</b></p> <p><b>Introductory practical exposure of following topics:</b></p> <p>Listening Comprehension, Reading Comprehension. Facing an Interview. Group Discussion. Public speaking: declamation, speech, elocution, extemporary, debate.</p>
<p><b>VLDD –VII</b></p>	<p><b>Theory VLDD –VII</b></p> <p>Definitions of terms: Pharmacology, Pharmacy,</p>	<p><b>Theory VLDD –VII</b></p>

<p>PHARMACY, 3+1</p>	<p>Chemotherapy, Therapeutics, Toxicology, Posology, Metrology etc. Sources and nature of drugs, Routine Pharmaceutical processes; Various dosage forms with suitable examples; Principles of compounding and dispensing of drug preparations; Different methods for the administration of drugs; Pharmacy weights and measures- Apothecary &amp; metric system; Household measures; Prescription reading- parts of prescription and commonly used Latin abbreviations in prescription writing; Broad therapeutic classification of drugs employed in Vety. Practice- Definitions examples and therapeutic uses in animals.</p>	<p>History of Pharmacy. Definitions of terms: Pharmacology, pharmacy, chemotherapy, therapeutics, toxicology, posology, metrology, pharmacokinetics, pharmacodynamics. Name of various sources and nature of drugs with examples; Definition of various pharmaceutical processes; Compounding and dispensing of drugs having vehicle as water, alcohol, oil, honey etc.; Storage of drugs in pharmacy lab; Drug hazards and safety with respect to handling and storage of drugs.</p> <p>Drug dosage forms. Routes of drug administration and their advantages and disadvantages - Enteral: oral, sublingual and per rectum.</p> <p>Topical/Local administration such as intranasal, intraocular, intra-auricular, intravaginal, intrauterine.</p> <p>Parenteral routes such as intravenous, intramuscular, subcutaneous, intra-tracheal, intra-ruminal, intraperitoneal, epidural, intradermal.</p> <p>Factors modifying drug effect and dose and examples of drug incompatibilities and drug interactions. Sites and basic principles of metabolism and excretion of drugs. Parts of prescription.</p> <p>Definition and general properties of various classes of drugs acting on digestive system with examples: Stomachics; prokinetics; sialics-vegetable bitters such as quassia, gentian, chiretta; antisialics-atropine, hyoscine; digestive ferments such as malt, diastase, pepsin; Sweetening agents such as treacle, sucrose, lactose; gastric antacids; emetics- sodium chloride, copper sulphate, apomorphine; anti-emetics- metoclopramide, domperidone; antidiarrhoeals- astringents (tannic acid, catechu); demulcents, antibiotics; carminatives- clove oil, cardamom, asafoetida, anise; antifoaming agents; antifroathing agents; antifermentive agents; rumenototics; purgatives- castor oil, magnesium sulphate, Sodium sulphate, croton oil, linseed oil, aloe, etc.; laxatives.</p> <p>Definition and general properties of various classes of drugs acting on urinary system with examples: diuretics, urinary alkalizers, urinary</p>
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		<p>acidifiers.</p> <p>Definition and general properties of various classes of drugs acting on cardiovascular system with examples: anti-coagulants; haemostatics; haematinics; vasoconstrictors.</p> <p>Definition and general properties of various classes of drugs acting on respiratory system with examples: bronchodilators; expectorants (camphor, menthol); mucolytics, respiratory stimulants, therapeutic gases.</p> <p>Definition and general properties of various classes of drugs acting on central nervous system with examples: Sedatives; tranquilizers; hypnotics; anaesthetics; opioid analgesics; nonsteroidal anti-inflammatory drugs, euthanizing agents.</p> <p>Definition and general properties of various classes of drugs acting on skin and mucous membrane with examples: caustics and counter-irritants; emollients and demulcents (olive oil, groundnut oil, cotton seed oil, mustard oil, coconut oil, liquid paraffin, glycerine, gum acacia); protectants; keratolytics; deodorants; astringents, antiseptics.</p> <p>Definition and general properties of various types of anthelmintics. Examples of antihemoprotozoan drugs.</p> <p>Definition and general properties of various classes of drugs acting on reproductive system with examples: oxytocics and tocolytics.</p> <p>Definition and examples of drugs acting as galactagogues, estrogens, progestogens and testosterone.</p> <p>Name and general properties of vitamins and minerals acting as nutraceuticals.</p> <p>Definition and general properties of various classes of drugs acting as antimicrobials with examples: antibiotics and other antibacterials and antifungals.</p> <p>Definition and general properties of various classes of drugs acting as anti-inflammatory, antipyretics and analgesics with examples.</p> <p>Antiseptics and disinfectants.</p> <p>Bio-medical waste management in laboratory: General introduction, rules and regulations.</p> <p>Concept of Ethno Veterinary Practices, ayurvedic and herbal drugs used in the treatment</p>
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		<p>of animal diseases. Introduction of common indigenous medicinal plants/drugs: Ginger, aloe, satawari, allium, ocimum, neem, Piper longum, withania, leptadenia, tinospora, embilica, eucalyptus, glycerrhiza, trichospermum, curcuma, moringa, tribulus, <i>Murraya koenigii</i>.</p> <p>Introduction of common toxic plants: Cyanogenetic plants, abrus, ipomoea, datura, ricinus, opium plant, calotropis, sorghum, bracken fern, congress grass, cannabis, nicotiana, lantana, gossypium, nerium, <i>Argemone mexicana</i>.</p> <p>Skill developed in terms of basics of pharmacy for upkeep of various types of drugs in hospital used by veterinarian. Concept of ethno veterinary practices, identification of commonly used medicinal plants and identification of toxic plants. Compounding and dispensing of various pharmacy preparations.</p>
	<p><b>Practical VLDD –VII</b></p> <p>Identification of common drugs; Labelling and storage of common drugs: Compounding and dispensing of pharmacy preparations.</p>	<p><b>Practical VLDD –VII</b></p> <p>Preparatory practical exposure of following topics-</p> <p>Identification of laboratory wares used in pharmacy laboratory. Demonstration of instruments/ equipment used in pharmacy laboratory. Metrology in pharmacy. Numerical based on weight and measures. Vehicle/ excipients for pharmacy preparations and drug administration. Demonstration of compounding, dispensing and labelling of various drug dosage forms. Demonstration of drug administration through different routes. Reading and understanding prescription with various prototype examples. Compounding and Dispensing of various pharmaceutical preparations such as Solutions, lotions, Mixtures, liniment, ointment, paste, powders, pills, poultice, plasters, emulsion, tinctures, electuaries. Keeping of record of pharmacy lab as per provisions of Drug Regulations. Identification of important therapeutic substances/ medicinal plants. Identification of toxic substances and toxic plants.</p>
<p><b>VLDD- VIII</b></p> <p>ELEMENTAR Y ANIMAL</p>	<p><b>Theory VLDD- VIII</b></p> <p>1. Animal Husbandry Extension - Meaning,</p>	<p><b>Theory VLDD- VIII</b></p> <p>Animal Husbandry Extension Education- Meaning, concept, levels, functions, philosophy and principles. Communication – Concept, elements,</p>

<p>HUSBANDRY EXTENSION, 1+1</p>	<p>concept, levels, functions, philosophy and principles.</p> <ol style="list-style-type: none"> <li>2. Communication - Definition, elements, models, barriers and factors affecting communication.</li> <li>3. Adoption - Definition, stages of adoption, adopter's categories and factors affecting adoption of animal husbandry practices.</li> <li>4. Audio-Visual Aids - Meaning importance in veterinary and animal husbandry extension, selection criteria of suitable A.V. aids and their limitation.</li> <li>5. Extension Methods- Meaning, concept, classification and their relative merits and demerits.</li> <li>6. Programme planning – Meaning, objectives, principles and steps in programme planning.</li> <li>7. Extension programmes launched by State</li> </ol>	<p>key communicators, models, barriers and factors affecting communication. Adoption - Definition, stages of adoption, adopters' categories, attributes of innovation and factors affecting adoption of animal husbandry practices. Audio-Visual Aids - Meaning importance and uses in veterinary and animal husbandry extension, selection criteria of suitable A.V. aids and their limitations. Extension Teaching Methods- Concept, classification and their relative merits and demerits. Programme planning – Meaning, objectives, principles and steps in programme planning and evaluation of programme. Extension programmes launched by State Department of Animal Husbandry and SAU/SVU for the development of animal husbandry sector. Need assessment of livestock farmers, evaluation and problems identification. Information and communication technologies for livestock development – concept, scope, tools, importance and limitations.</p>
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	<p>Department of Animal Husbandry and SAU/SVU for the development of animal husbandry sector.</p> <p>8. Need assessment of livestock farmers and problems identification.</p>	
	<p><b>Practical VLDD- VIII</b></p> <ol style="list-style-type: none"> <li>1. Handling of episcope, slide, overhead and multimedia projectors</li> <li>2. Preparation of visuals: Pamphlets, folders, posters, charts, transparencies, flash cards, flip charts etc.</li> <li>3. Writing for cattle owners: Advisory letters, circular letters, news item</li> <li>4. Group discussion on situational/ contemporary animal husbandry problems.</li> <li>5. Dealing with farmers visiting the veterinary hospitals</li> <li>6. Identification of field problems of livestock owners</li> <li>7. Conducting practical demonstrations for livestock owners</li> <li>8. Maintenance of veterinary hospitals and its surroundings</li> <li>9. Building team work and dignity of labour</li> <li>10. Conducting socio-economic surveys and data collection for livestock census</li> </ol>	<p><b>Practical VLDD- VIII</b></p> <p>Skills in handling of episcope, slide, overhead and multimedia projectors. Preparation of visuals: Pamphlets, folders, posters, charts, transparencies, flash cards, flip charts etc. Writing for cattle owners: Advisory letters, circular letters, news item. Group discussion on situational/ contemporary animal husbandry problems. Dealing with farmers visiting the veterinary hospitals. Identification of field problems of livestock owners. Conducting practical demonstrations for livestock owners. Identification of key communicators for animal husbandry extension programme. Building team work and dignity of labour. Conducting socio-economic surveys and data collection for livestock census. Handling of computers for extension work.</p>
<p><b>VLDD-IX</b></p>	<p><b>Theory VLDD-IX</b></p> <p>Handling, storage and distribution of meat, poultry</p>	<p><b>Theory VLDD-IX</b></p> <p>General awareness about handling, preservation, storage, distribution and nutritive value of meat</p>

<p>INTRODUCTION TO LIVESTOCK PRODUCTS TECHNOLOGY,</p> <p>1+0</p>	<p>and eggs. Candling and grading of eggs (also to be demonstrated in theory classes). Milk definition and its composition; Factors affecting composition and quality of milk; Elementary knowledge about nutritive value; Source of bacterial contamination of milk and clean milk production. Sampling; C.O.B. and alcohol tests; pH by indicator paper; Specific gravity test; Estimation of fat, S.N.F and T.S in milk (also to be demonstrated in theory classes). Milk collection; Legal standards of milk; Processing, packaging and distribution of milk.</p>	<p>(including poultry meat). Different types of meat animals and their meat characteristics (in brief). Care and handling of meat animals during transportation, pre- slaughter care, slaughtering technique of sheep, goat, pig and poultry, dressing percentage, different types of offal, ritual methods of slaughter. General awareness about handling, storage, preservation, distribution and nutritive value of eggs. Candling and grading of eggs. Brief description of external and internal quality of egg (along with demonstration). Milk definition and its composition: Factors affecting composition and quality of milk, Brief description of nutritive value of milk, Short notes about Source of bacterial contamination in milk, factors affecting clean milk production, Definition of different methods for sampling of milk. Procedure of clot on boiling (C.O.B.) and alcohol tests. Public-purpose awareness about procedures for estimation of pH, general awareness about procedure for estimation of specific gravity, fat, S.N.F and T.S in milk (along with demonstration). Different types of milk and their Legal standards of milk. Basics of Milk collection, processing, packaging and distribution of milk: Collection of milk, processing of fluid milk for consumption, homogenization, pasteurization, sterilization, packaging and distribution of milk. Brief description of milk products- khoa, ghee, paneer, channa, dahi, cheese, ice cream, evaporated and condensed milk, milk powder. Skills to assist veterinary surgeon in quality evaluation of livestock products (milk, meat, egg) and in promoting development in entrepreneurial venture in livestock products' processing by better skilled assistance.</p>
<p>VLDD-X</p> <p>ELEMENTARY MEDICINE,</p> <p>3+1</p>	<p><b>Theory VLDD-X</b></p> <p>Preliminary knowledge about signs of diseases; Clinical methods of examination and detection of abnormalities; Abnormal body discharge; Body temperature, pulse and respiration; Methods of injecting drugs, sera, vaccine etc.; Use of canula, passing stomach tube, probang, teat syphon and other instruments for treatment ; General agents responsible for causing diseases: Bacteria, Viruses, Fungi and Parasites ; General principles of prevention and control of diseases ;</p>	<p><b>Theory VLDD-X</b></p> <p>Preparative exposure of following topics-</p> <p>Introduction, definitions and importance of history of patient. Preliminary knowledge about signs of diseases of domestic animals and poultry. General awareness about general clinical methods of examination and approaching patient; Body temperature, pulse and respiration rate. Elementary clinical diagnostic methods. Introduction of Methods of drug administration. Glossary of Common contagious and non-contagious diseases caused by: Bacteria, Viruses, Fungi and Parasites. General principles of prevention and control of diseases. Utilization and disposal of carcasses. Camel diseases (Kumari and Kapali). General account about Etiology, symptoms and First aid of following diseases: Common non-infectious diseases of equines viz. Colic, Lameness, Azoturia,</p>



	<p>Utilization and disposal of carcasses ; Elementary clinical diagnostic methods, history and general examination.</p> <p><b>Non infectious diseases</b> - symptoms and first aid of following diseases:</p> <p>Stomatitis, Choke, Upper respiratory tract infections, Tympany, Impaction, Constipation, Diarrhoea, Dysentary, Indigestion, Pneumonia, Haemoglobinuria, Milk fever, Ketosis, Pica in camels, Reteintion of urine.</p> <p><b>Infectious diseases</b> - Symptoms and first aid in the following diseases :</p> <p><b>Bacterial and Viral diseases:</b> Johne’s disease, Mastitis, Haemorrhagic septicemia, Anthrax, Black Quarter, Tetanus, T.B., Enterotoxaemia, Rinderpest, Rabies, Swine Fever.</p> <p><b>Paratitcidiseases:</b> Babesiosis, Theileriasis, Trypanosomiasis, Coccidiosis, Ascariasis: Control of flies, lice, ticks and mites and mange.</p> <p><b>Poultry diseases: Ranikhet</b> disease, Fowl pox, Salmonellosis.</p> <p><b>Common camel diseases</b></p> <p><b>Vaccination:</b> Elementary Knowledge about vaccination of Domestic animals &amp; Poultry.</p>	<p>Stomatitis, myositis. Elementary Symptoms and First aid of following diseases: Diseases of urinary system-urinary tract infection, nephritis, cystitis, calculi etc. General awareness about Symptoms and First aid of following diseases: Diseases of respiratory system-upper respiratory tract infection, pneumonia, neo-natal pneumonia, drenching pneumonia, pleurisy etc. General awareness about Symptoms and First aid of following diseases: Diseases of digestive system ruminants-stomatitis, pharyngitis, choke, simple, indigestion, acid indigestion, rumen dysfunction, alkaline indigestion, constipation, diarrhoea, tympany, Dysentery, impaction of rumen, colic, enteritis, traumatic reticulitis, intestinal obstruction and prevention of traumatic reticuloperitonitis etc. Introduction of Symptoms and First aid of following diseases: Diseases of skin, dermatitis, scabies, conjunctivitis, otitis etc in dog and large animal. Information on Symptoms and First aid of following diseases: Elementary knowledge of management of infectious diseases. Bacterial diseases – J.D., anthrax, haemorrhagic septicaemia. Black quarter, tetanus, brucellosis. Tuberculosis, Para tuberculosis, actinomycosis, actinobacillosis. Leptospirosis, salmonellosis, colibacillosis, contagious caprine pleuro pneumonia, tetanus, enterotoxaemia, foot rot and mastitis etc. Viral diseases – rinderpest (R.P.), foot and mouth disease(F.M.D.), pox (cow pox, sheep pox, goat pox, fowl pox etc.) rabies, ephemeral fever, African horse sickness. Swine fever, Poultry disease-Ranikhet disease, marek’s disease, pullorum disease, chronic respiratory disease, (CRD), Bird flu and gumboro disease, fowl typhoid., etc. Fungal diseases. Protozoan diseases – theileriosis, babesiosis, surra, coccidiosis, anaplasmosis etc. Parasitic disease of animals – parasitic gastroenteritis in ruminants, hemonchosis in ruminants, ascarid infestations, strongylosis, lungworm infestation, louse infestations and mites infestations etc. Short notes on Symptoms and First aid of following diseases: Metabolic diseases-milk fever, downer cow syndrome, ketosis, post parturient haemoglobinuria, hypomagnesemic tetany etc. Deficiency diseases-vitamins &amp; minerals deficiencies, Ca, P, grass tetany, common salt, K, trace minerals, xerophthalmia, Iatrogenic haemorrhagic sweet clover disease, Polio encephalomalacia, pica, rickets, osteomalacia. First aid of infestation from flies, lice, ticks and mites, and mange. Elementary Knowledge about deworming, vaccination schedule of livestock, dogs, equines &amp; Poultry. Skills in assistance ability in hospital and farmers’ doorstep for help to</p>
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		veterinarian, to vaccinate animals against diseases and to take timely veterinary measures during first aid.
	<p><b>Practical VLDD-X</b>  Cleaning of slides, glass wares and other laboratory equipments ; Techniques of staining and preparation of blood smears ; Care and use of Microscopes ; Collection, processing for examination of blood, urine, faeces ; Collection, preservation, fixation and dispatch of morbid material for laboratory examination.</p> <hr/>	<p><b>Practical VLDD-X</b>  Introductory art and practice of clinical examination. Study of some common glassware used in laboratories. Collection and preservation of urine: Physical examination of urine, Chemical examination of urine, Microscopic examination of urine. Examination of blood: Preparation of wet smear, Preparation and fixing of blood smear, staining of blood smear, estimation of haemoglobin, counting of blood cells. Fecal examination. To examine the milk for its quality. Collection, preservation and dispatch of toxic material. Collection, preservation and dispatch of material for laboratory examination. Skills for passing of stomach tube in equine, bovine, modes of drug administration, catheterisation of urinary tract, rumen trocarisation and collection of Strained Rumen Liquor. Providing first aid for simple and minor ailments and dispensing of medicines. Skill to check the pharmaceutical stock, to assess inventory and read prescription, process and dispense medication.</p>
<p><b>VLDD-XI</b>   INTRODUCTION TO SURGICAL PROCEDURES,   2+1</p>	<p><b>Theory VLDD-XI</b>   Introduction and common terms used in Surgery : Sterilization in surgical practice ; Introduction to superficial surgical ailments ( Abscess, Fistula, Sinus, Wounds, Gangrene Cyst ) ; Introduction to dental care ; Introduction to hoof management ; First aid management of fracture, bloat, haemorrhage ; Introduction to post operative management ; Application and uses of various antiseptics, lotions, ointments and tinctures in surgical practice.</p>	<p><b>Theory VLDD-XI</b>  Elementary practical exposure only of following topics   Introduction and common terminology used in Veterinary Surgery. Restraining and positioning of animals. Introduction to inflammation. Basics of Pre, intra and post-operative considerations in animals. Operation theatre routines and preparation of patient. Sterilization and disinfection, sepsis and antisepsis. Preparation of surgical packs and general surgical instruments. Suture materials and surgical needles. Basic Classification of wounds and its management. Introduction to Abscess management. Management of Cyst. Introduction of Hematoma and tumours. Care of Hernia, sinus and fistula. Basic care of Necrosis and gangrene. Basic care of Haemorrhage and haemostasis. Management of bloat. Common hoof problems and their management in bovines and equines. Fracture, dislocations and first aid. Method of Dehorning, docking and castration. Elementary management practice of urinary system affections. Introduction and general terminology used in veterinary anaesthesia. General considerations, methods and types of anaesthesia, Simple awareness about anaesthetic emergencies encountered in Veterinary Practice and monitoring during anaesthesia.</p>

		Introduction of Affections of teat (Laceration, hard milker, free milker, lactoliths). Bandaging and splint application techniques. Introduction to burn and its preliminary management. Basic Dental affections and their management. First aid of critical illness and trauma patients. Post-operative management of surgical patients. Skills in assisting veterinarian in care of surgical cases and upkeep of hospital equipment/O.T.
	<p><b>Practical VLDD-XI</b></p> <p>Preparation of pack for autoclaving; Surgical attires and their uses by the Surgeon ; Operation room discipline ; Dressing of wounds and bandages ; Identifications of various surgical instruments ; Physical restraint of animals for surgery ; Various injections ; Burdizzo castration ; Preparing animals for surgery ; Application of counter irritants, heat, cold fomentation.</p>	<p><b>Practical VLDD-XI</b></p> <p>Restraint of surgical patients, Identification of various surgical instruments. Sterilization and disinfection methods, Suture materials and techniques, Preparation of surgical pack for sterilization, Helping in preparation of operation theatre.</p> <p>Operation room discipline and etiquettes, Surgical attires and their use by the Surgeon. Preparing animals for surgery, Various injections and techniques. Record keeping pertaining to OPD and operation theatre. Application of counter irritants, heat, cold fomentation. Dressing of wounds and bandages. Demonstration and practice of enema, drenching, bolus delivery. Demonstration and practice of castration, dehorning and debudding.</p>
<p><b>VLDD- XII</b></p> <p>INTRODUCTION TO REPRODUCTIVE DISORDERS,</p> <p>2+1</p>	<p><b>VLDD- XII Theory</b></p> <p>Introduction to reproductive patterns of live-stock ; Genital organs of male and female ; Transport of materials from abortions ; Assistance in holding obstetrical cases ; Preparation of packs for obstetrical operations ; Sterilization of instruments ; Preparation of animals ; Intrauterine medication ; Assistance to parturient animals ; Care of new born ; Nomenclature of gynecological and obstetrical conditions.</p>	<p><b>Theory VLDD XII</b></p> <p>Foundation theoretical exposure only of following topics-</p> <p>Introduction of gynaecology and obstetrics. Reproductive patterns of livestock. Genital organs of male and female of cattle, horse, dog, pig and poultry. Heat detection, gestation periods of domestic animals. Care and management of pregnant animals. Symptoms of parturition in domestic animals. Assistance to parturient animal. Care of new born and dam. Preliminary knowledge of female infertility and its management. Transport of material from abortions. Preliminary knowledge of different obstetrical conditions and their first aids management. Casting of animal in different gynaecological and obstetrical problems. Assistance in handling obstetrical cases. Preparation of packs for obstetrical operations. Sterilisation of instruments. Preparation of animal for obstetrical operations. Intrauterine medication. Nomenclature of gynaecological and obstetrical conditions. Basics of foaling and neonatal foal management. Glossary on infectious reproductive diseases of males, General awareness about Heat detection aids. Skills to assist veterinarian carefully in identification of reproductive patterns, record</p>

		<p>maintenance at farm/goshala, management of newly born calf.</p>
	<p><b>Practical VLDD- XII</b>  Intrauterine medication; Use of Vaginoscope; Preparation of packs for obstetrical cases; Preparation of different stains for semen evaluation and cytology; Assistance in obstetrical cases.</p>	<p><b>Practical VLDD- XII</b>  Preparatory practical exposure only of following topics-</p> <p>Examination of genital organs, slaughter house specimen, use of vaginoscope, casting of animal in different obstetrical problems, intrauterine medication, preparation of packs for obstetrical cases. Preparation of slide and staining for vaginal cytology in female dog, assistance in obstetrical cases, oestrus detection, visit to different livestock farms viz., cattle, buffalo, sheep, goat, poultry, camel, etc record keeping of herd, goshala and household animals. Assistance in obstetrical cases. Introduction to different gynaecological reproductive disorders in male and female animals. Identification of different equipment's used in veterinary hospital.</p>
<p><b>VLDD-XIII</b>  INTRODUCTION TO REPRODUCTION, ARTIFICIAL INSEMINATION AND STORAGE OF SEMEN,  1+1</p>	<p><b>Theory VLDD-XIII</b>  Structure and function of reproductive organs of cow, horse, dog, pig and poultry; Estrous cycles of domestic animals: Signs of heat in domestic animals: Gestation periods of domestic animals: Symptoms of parturition in cattle, buffaloes, sheep, goat and pigs; Advantages and limitations of the technique of Artificial Insemination.</p>	<p><b>Theory VLDD-XIII</b>  Definitions of puberty, sexual maturity, gestation and parturition. Introduction of ovogenesis, ovulation, andrology, and spermatogenesis. Reproductive hormones of male and female. Structure and function of male and female reproductive organs of bovines, horse, pig, sheep and goat and poultry. Oestrus cycle of domestic animals. Signs of heat in domestic animals. Sexual behaviour of animals. Management of bulls. Techniques of artificial insemination, advantages and limitations of the techniques of artificial insemination, reproductive record keeping and follow up of inseminated semen. Preliminary knowledge of male infertility and its management. Skills for pregnancy care, prolapse (uterine/vaginal/rectal) care and parturition/foaling. Skills to perform artificial insemination in cows and buffaloes and maintain record.</p>

	<p><b>Practical VLDD-XIII</b></p> <p>Rectal palpation of reproductive organs: Training of bulls; Preparation of artificial vagina for semen collection; Semen collection and evaluation; Preparation of diluters and extension of semen; Demonstration of semen freezing techniques; Artificial Insemination technique with liquid/frozen semen; Sterilization of glass wares/laboratory wares used in A.I. work.</p>	<p><b>Practical VLDD-XIII</b></p> <p>Introductory practical exposure only of following topics- training of bulls for semen collection. Preparation of artificial vagina for semen collection. Semen collection and evaluation. Preparation of diluters/ extenders of semen preservation or freezing, preparation of different stains for semen evaluation and cytology.</p> <p>Demonstration of semen freezing techniques.</p> <p>Artificial Insemination technique with liquid and frozen semen.</p> <p>Sterilization of glass wares/laboratory wares used in A.I. work. Oestrus detection.</p>
<p><b>VLDD-XIV</b></p> <p>INTRODUCTION TO CLINICAL PROCEDURES &amp; ANIMAL FARM PRACTICES,</p> <p>0+6</p>	<p><b>VLDD-XIV</b></p> <p>Recording of temperature, pulse and respiration ; Methods of drug administration ; Practice of compounding and dispensing of various drugs ; Use of trocar and canula, stomach tube and probang ; Intramammary infusions ; Dressing of wounds ; Preparation of commonly used ointments tinctures, lotions/solutions etc. ; Acquaintance with various gynaecological and surgical instruments with their uses : Sterilization of instruments etc. ; Demonstration of gynaecological and surgical problems ; Preparation and handling of surgical pack ; Introduction to X-ray procedure ; Collection of clinical material for laboratory examination ; Burdizzo castration of calf, sheep and goat. Prophylaxis measure against common domestic animals &amp; Poultry diseases.</p> <p><b>Animal Breeding: -</b></p> <p><b>Cattle</b></p>	<p><b>VLDD-XIV</b></p> <p>Preparatory practical exposure only of following topics</p> <p><b>Clinical procedures:</b></p> <p>Behaviour and posture of normal and sick animal. Lifting and care of animal after operation, care in hospital and cow shed. Restraining, handling and casting of livestock, dog and cat in hospital.</p> <p>Basics of commonly used antimicrobials, fluids and their indications, poisoning/toxicity care.</p> <p>Clinical methods of examination and detection of abnormalities.</p> <p>Operation theatre management and lab management.</p> <p>Practical Recording of temperature, pulse, ruminal movements and respiration. Methods of drug administration. Practice of compounding and dispensing of various drugs. Stomach tube and probang. Intramammary infusions.</p> <p>Dressing of wounds. Preparation of commonly used ointments tinctures, lotions/solutions etc.</p> <p>Acquaintance with various gynaecological and surgical instruments with their uses. Sterilization of instruments etc. Demonstration of gynaecological and surgical problems. Preparation and handling of surgical pack.</p> <p>Introduction to laboratory diagnostics of blood (Hb, TLC, DLC, TEC, PCV, ESR, MCH, MCHC), faeces (blood, sedimentation, flotation, parasitic), skin scraping and urine (chemical, microscopic</p>

	<p>1. Phenotypic characterization of important breeds. 2. Feeding, management &amp; disease control in young calves. 3. Animal identification and performance recording. 4. General management &amp; feeding. 5. Elementary knowledge and schedule of vaccination.</p> <p><b>Poultry</b></p> <p>1. Different indigenous breeds of poultry and their characteristics. 2. Management of hatchery. 3. Brooding of chicks from 0-6 weeks. 4. Management of layers in the layer house. 5. Demonstration of A.I.</p> <p><b>Animal Nutrition</b></p> <p>1. Different methods/procedures for efficient purchase of feed ingredients. 2. Types of storage structures form of storage, scientific requirements for safe storage and different methods to avoid storage losses of feeds &amp; feed ingredients. 3. Processing of feed ingredients to improve their nutritive value. 4. Ration formulation and preparation for livestock and poultry. 5. Complete feed block formulation and preparation. 6. Urea molasses mineral block formulation and preparation.</p> <p>Live Stock &amp; Poultry Management: -</p> <p><b>Buffalo</b></p> <p>1. Identification of External body parts. 2. Handling and restraining of animals. 3. Selection, culling and judging of animals. 4. Feeding and</p>	<p>and physical). Collection of clinical material for laboratory examination.</p> <p>Castration of calf, sheep and goat. Prophylaxis measure against common diseases of domestic animals, livestock &amp; poultry diseases.</p> <p>Skills of restraint, handling of animal for diagnosis and collection of sample. Assistance to the veterinary surgeon in conducting procedures/operations and after care while performing the major operations. Skill in use of herbal medicines/ethno veterinary practices alone or in combination with allopathic medicines in animals.</p> <p><b>Animal Farm Practices:</b></p> <p>1. Brief introduction to various breeds of livestock, poultry and dog. Cattle- Phenotypic characterization of important breeds. Feeding, management &amp; disease control in young calves. Animal identification and performance recording. General management &amp; feeding. Elementary knowledge and schedule of vaccination.</p> <p>Poultry- Different indigenous breeds, commercial exotic breeds of poultry and their characteristics. Management of hatchery. Brooding of chicks from 0-6 weeks. Management of layers in the layer house. Demonstration of A.I. Prophylaxis. Economic traits of poultry.</p> <p>2. Different methods/procedures for efficient purchase of feed ingredients. Types of storage structures and form of storage. Scientific requirements for safe storage and different methods to avoid storage losses of feeds &amp; feed ingredients. Processing of feed ingredients to improve their nutritive value. Ration formulation and preparation for livestock and poultry. Complete feed block formulation and preparation. Urea molasses mineral block formulation and preparation.</p> <p>3. Identification of external body parts in different species. Importance of height and weight and weighing of cow, sheep, goat and pig. Importance of identification and different methods of identification used in farm animals i.e, colours and</p>
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	<p>other day to day management practices. 5. Demonstration of A.I. &amp; Pregnancy diagnostic. 6. First aid of sick animals.</p> <p>Poultry</p> <ol style="list-style-type: none"> <li>1. Identification of Poultry birds.</li> <li>2. Brooding management.</li> <li>3. Litter management.</li> <li>4. Lay out plan of different types of poultry houses.</li> </ol>	<p>markings, artificial markings, basic rules, ear tagging, tattooing, branding and recommended time for identification. Breeding practices in different species of livestock: Artificial insemination, Pregnancy diagnosis, culling of animals, Measures to improve reproductive efficiency.</p> <p>Skills in infrastructure and economic requirements for project for 10 cows or 5000 poultry.</p> <p>Buffalo- Handling, casting and restraining of animals in farm and village. Selection, culling and judging of animals. Feeding and other day to day management practices. First aid of sick animals. Milking: management, methods, preparation and recording.</p> <p>Poultry- Identification of Poultry birds. Brooding management. Litter management. Lay out plan of different types of poultry houses. Hatchery management. External body parts and breed characteristics. Management of layers and broilers in the house.</p> <p>4. Brief account of practical features of the following topics:</p> <p>Importance of dentition, basic structure of tooth. Knowing the age of the cattle, buffalo, sheep, pigs and dog through dentition. Designing of animal house, watering in farm animals and floor space requirement for different classes of livestock including poultry. Disease prevention and control in a livestock farm i.e. Disinfection of animal houses and pastures. Control of internal parasites and deworming, isolation, quarantine and vaccination. Disposal of carcasses i.e. burial of carcasses, burning of carcasses. Sanitation in a livestock farm: Importance of sanitation, commonly available sanitizing agents and sanitation programme, problems due to inadequate sanitation, sanitation in calf pens, sanitation in sheds and other quarters. Brief introduction to various breeds of sheep, goat and dog. Housing, feeding and breeding management of sheep and goat. Glossaries of terms used in sheep, goat and dog. Culling of animals. Care of neonatal and young stock. Disposal of solid and liquid waste from livestock farm and effective utilization of the same- various techniques of waste utilization viz., composting, bio-gas production, aerobic oxidation, direct application of waste in the</p>
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		farm land. Selection of the dog breeds, selection of a pup, breeding management of dogs, Care of pregnant bitch and pups. Importance of record keeping. Skills in pet animal vaccination and management of sick dogs.
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**Agenda Item No. 5. Revised Academic Calendar of 1<sup>st</sup> to 4<sup>th</sup> year (New VCI) B.V.Sc.&A.H. programme for the academic session 2019-20.**

The draft of Revised Academic Calendar of 1<sup>st</sup> to 4<sup>th</sup> year (New VCI) B.V.Sc.&A.H. programme for the academic session 2019-20 was approved as proposed by Dean COVS.

**Revised Academic Calendar for B.V.Sc. & A.H. Programme  
2019-20 (New VCI)  
(Applicable to students of COVS, LUVAS, Hisar)**

Sr. No.	Event / Activity	1st Year	2 <sup>nd</sup> and 3 <sup>rd</sup> Year	4 <sup>th</sup> Year
1.	Registration	31.08.2019	31.08.2019	31.08.2019
2.	Commencement of Classes	16.09.2019	02.09.2019	02.09.2019
3.	Orientation for B.V.Sc. & A.H. First Year students	01.10.2019	07.09.2019	—————
4.	Internal Assessment - I	25.11.2019 to 04.12.2019	25.11.2019 to 04.12.2019	02.01.2020 to 10.01.2020
5.	Winter Break	No Winter Break	22.12.2019 to 05.01.2020	11.01.2020 to 26.01.2020
6.	Internal Assessment - II	24.02.2020 to 07.03.2020	24.02.2020 to 07.03.2020	13.05.2020 to 22.05.2020
7.	Internal Assessment - III	18.05.2020 to 30.05.2020	18.05.2020 to 30.05.2020	16.09.2020 to 25.09.2020
8.	Last date of submission of result of internal assessment (Best of two) to COE	15.06.2020	15.06.2020	12.10.2020
9.	Preparatory holidays	22.06.2020 to 29.06.2020	22.06.2020 to 29.06.2020	25.10.2020 to 31.10.2020
10.	Annual Examinations (Theory) - External	30.06.2020 to 21.07.2020	30.06.2020 to 21.07.2020	02.11.2020 to 21.11.2020
11.	Annual Examinations (Practical) - Internal	22.07.2020 to 04.08.2020	22.07.2020 to 04.08.2020	23.11.2020 to 01.12.2020
12.	Annual Break / Summer Holidays	05.08.2020 to 30.08.2020	05.08.2020 to 30.08.2020	02.12.2020 to 25.12.2020
13.	Declaration of Final Result	30.08.2020	30.08.2020	26.12.2020
14.	Registration for the next session (Tentative) / Registration for	31.08.2020	31.08.2020	28.12.2020



Internship for 4 <sup>th</sup> Year (Tentative)			
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- Note:**
1. In eventuality of students' strike the Registrar in consultation with Dean, COVS shall adjust the calendar for the loss of teaching days.
  2. List of holidays for the year 2020 is not available. If the date fixed for an event happens to be a holiday, the next working day will be considered as the date for that particular event.
  3. The internal assessment will be conducted during the prescribed period as notified by the Controller of Examinations (without disturbing the regular teaching).

## Table Agenda

### Agenda Item No. 6. Modification in University Calendar Volume II

In the light of some ambiguity faced in clause 21 and 28 of chapter-II, part IV of University Calendar Volume-II, following modifications, as proposed by Dean COVS, were approved.

Existing	Approved
<b>Chapter –II, Part IV</b> <b>Clause 21. Moderation of results</b>	<b>Chapter –II, Part IV</b> <b>Clause 21. Moderation of results</b>
(1) The Controlleror Coordinator of Examinations in consultation withtheDean of the college shall form committee of three members consisting of Dean of the college as Chairman and two other teaching faculty members to moderate the results obtained at the annual examination and the committee shall review the results and recommend the moderation in the event of failure of more than 10% of the students actually appearing in that particular subject and any moderation suggested shall be uniformly applied to all students for that paper(s) without altering the merit of the passed students.	(1) The Controlleror Coordinator of Examinations in consultation with the Dean of the college shall form committee of three members consisting of Dean of the college as Chairman and two other teaching faculty members to moderate the results obtained at the annual <b>theory</b> examination and the committee shall review the results and recommend the moderation in the event of failure of more than 10% of the students actually appearing in that particular subject and any moderation suggested shall be uniformly applied to all students for that paper(s) without altering the merit of the passed students.
(2) Any moderation effected should not involve of enhancing of more than total of five marks in a professional year and in no case more than three marks in one subject and the provisions for moderation of results shall not apply to compartment examinations and there shall be no provision for grace marks in any case.	(2) Any moderation effected should not involve of enhancing of more than total of five marks in a professional year and in no case more than three marks in one subject and the provisions for moderation of results shall not apply to compartment <b>and practical</b> examinations and there shall be no provision for grace marks in any case.
<b>Clause 28. RULES AND REGULATIONS RELATED TO EXAMINATION SYSTEM AT THE AFFILIATED COLLEGES / INSTITUTES</b>	<b>Clause 28. RULES AND REGULATIONS RELATED TO EXAMINATION SYSTEM AT THE AFFILIATED COLLEGES / INSTITUTES</b>

(11) If the sessions will be running simultaneously at COVS, Hisar and at affiliated college/ institute, the moderation of the result will be carried out by the Moderation Committee of COVS, LUVAS, Hisar with an additional senior faculty member of the affiliated college/ institute. However, if the sessions are not running simultaneously, then COE in consultation with the Dean of the affiliated college/institute, shall form a committee of three members consisting of Dean of the affiliated college/institute as Chairman and two other teaching faculty members (one from the affiliated college/institute and another from COVS, Hisar) to moderate the results obtained at the annual examination. This committee shall review the results for the normal distribution of marks and the percentage of pass or failure. Any moderation suggested shall be uniformly applied to all the students of all the colleges/ institute(s) for the paper(s) without altering the merit of the passed candidates. Moderation of result will be done only if 10% or more students of the cumulative strength of all the colleges/ institutes of that class are failing in a particular paper. Any moderation effected should not involve of enhancing of more than a total of five marks in a professional year for a student, and in no case more than three marks in one paper. The provisions for moderation of results shall not apply to compartment examinations. There shall be no provision for grace marks in any case.

(11) If the sessions will be running simultaneously at COVS, Hisar and at affiliated college/ institute, the moderation of the result will be carried out by the Moderation Committee of COVS, LUVAS, Hisar with an additional senior faculty member of the affiliated college/ institute. However, if the sessions are not running simultaneously, then COE in consultation with the Dean of the affiliated college/institute, shall form a committee of three members consisting of Dean of the affiliated college/institute as Chairman and two other teaching faculty members (one from the affiliated college/institute and another from COVS, Hisar) to moderate the results obtained at the annual **theory** examination. This committee shall review the results for the normal distribution of marks and the percentage of pass or failure. Any moderation suggested shall be uniformly applied to all the students of all the colleges/institute(s) for the paper(s) without altering the merit of the passed candidates. Moderation of result will be done only if 10% or more students of the cumulative strength of all the colleges/institutes of that class are failing in a particular paper. Any moderation effected should not involve of enhancing of more than a total of five marks in a professional year for a student, and in no case more than three marks in one paper. The provisions for moderation of results shall not apply to compartment **and practical** examinations. There shall be no provision for grace marks in any case.

(12) For scrutiny of answer book(s) of annual (external) examinations, a student has to apply to the COE, LUVAS, Hisar through Dean of the affiliated college/institute within three days after the declaration of result and after paying prescribed fee. The filled in proforma along with the prescribed fee is to be submitted to the office of the Dean of the affiliated college/institute, who in turn will send the same to the COE, LUVAS, Hisar within two days after the last date for applying is over. The scrutiny will be

(12) For scrutiny of answer book(s) of annual (**Theory**) examinations, a student has to apply to the COE, LUVAS, Hisar through Dean of the affiliated college/institute within three days after the declaration of result and after paying prescribed fee. The filled in proforma along with the prescribed fee is to be submitted to the office of the Dean of the affiliated college/institute, who in turn will send the same to the COE, LUVAS, Hisar within two days after the last date for applying is over. The

done by the scrutiny committee of COVS, LUVAS, Hisar.	scrutiny will be done by the scrutiny committee of COVS, LUVAS, Hisar.
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**Agenda Item No. 7. Revised Academic Calendar of 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year B.V.Sc.&A.H. Programme 2019-20 (Old VCI)**

**Revised Academic Calendar of 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year B.V.Sc. & A.H. Programme 2019-20 (Old VCI)**

**(Applicable to students of COVS, LUVAS, Hisar)**

The Dean COVS, LUVAS, Hisar proposed the Revised Academic Calendar of 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year B.V.Sc.&A.H. Programme 2019-20 (Old VCI). The academic calendar was approved as proposed.

Sr. No.	Event	3 <sup>rd</sup> and 4 <sup>th</sup> Year		5 <sup>th</sup> Year
		Semester-I	Semester-II	Semester-I
1.	Registration	24.09.2019	24.02.2020	24.09.2019
2.	Commencement of Classes	25.09.2019	25.02.2020	25.09.2019
3.	Compartment Examinations	As per applicable rules	As per applicable rules	As per applicable rules
4.	Internal examinations	06.02.2020 to 19.02.2020	08.07.2020 to 31.07.2020	06.02.2020 to 25.02.2020
5.	Preparatory leave for Annual Examinations	N.A.	01.08.2020 to 03.08.2020	26.02.2020 to 01.03.2020
6.	Annual Examinations	N.A.	04.08.2020 to 27.08.2020	02.03.2020 to 18.03.2020
7.	Semester break/Tour*	20.02.2020 to 22.02.2020	28.08.2020 to 13.09.2020	19.03.2020 to 04.04.2020
8.	Beginning of new session	14.09.2020		—————
9.	Registration in Internship Programme (Tentative)	N.A.		06.04.2020

- Note:**
- In eventuality of students' strike the Registrar in consultation with Dean, COVS shall adjust the calendar for the loss of teaching days.
  - List of holidays for the year 2020 is not available. If the date fixed for an event happens to be a holiday, the next working day will be considered as the date for that particular event.

The meeting ended with vote of thanks to the chair.

Sd/-

(Dr. Vinod Kumar)

Secretary, BOS

Approved

Sd/-

(Dr. D. P. Sharma)

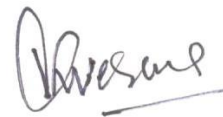
Chairman, BOS

Endst. No. VPTX/2019/1956-79

Dated: 30.09.2019

A copy of the above is forwarded to the following for information and necessary action please.

1. Dean, COVS, LUVAS, Hisar
2. The Registrar, LUVAS, Hisar
3. Controller of Examination, LUVAS, Hisar
4. The Director IPVS, LUVAS, Hisar
5. All HODs of COVS, LUVAS, Hisar
6. Incharge, Disease Free Small Animal House, LUVAS, Hisar
7. Admin LUVAS for uploading on University website



(Dr. Vinod Kumar)

Secretary, BOS