1	Name of Course	**C.C.In VETERINARY TECHNICIAN (W.E.F. 2015-16)**
2	Course Code	**201216**
3	Max.No.of Students Per Batch	25 Students
4	Duration	1 Years
5	Type	Part Time
6	No.Of Days / Week	6 Days
7	No.Of Hours /Days	4 Hrs
8	Space Required	1) Workshop/Lab = 200 Sq feet 2) Class Room = 200 Sq feet **TOTAL = 400 Sq feet** 3) MOU with Veterinary Hospital is required. 4) Distance between Hospital and Institute Should not be more than 10 Km. 5) Requirement -Farm House should be available for practical
9	Minimum Entry Qualification	S.S.C.
10	Objective Of Course	1. To make them technically qualified in veterinary first Aid 2. To make them to do vaccinations in all types of Animals. 3. To perform castration techniques. 4. To know about Frozen Semen Technology.
11	Employment Opportunity	To assist a qualified person.
12	Teacher's Qualification	B.V.Sc
13	Training System	**Training System Per Week** Theory: 6 hrs; Practical: 18 hrs; Total: 24 hrs
14	Exam. System	

Sr. No.	Paper Code	Name of Subject	TH/ PR	Hours	Max. Marks	Mini. Marks
1	**20121611**	Animal Management and Nutrition	TH-I	3 hrs.	100	35
2	**20121612**	Preventive Health Care and Vet. First aid	TH-II	3 hrs.	100	35
3	**20121613**	Frozen semen technology	TH-III	3 hrs.	100	35
4	**20121621**	Animal Management and Nutrition	PR-I	3 hrs.	100	50
5	**20121622**	Preventive Health Care and Vet. First aid	PR-II	3 hrs.	100	50
6	**20121623**	Frozen semen technology	PR-III	3 hrs.	100	50
		Total			**600**	**255**

VETERINARY TECHNICIAN

THEORY – I - ANIMAL MANAGEMENT AND NUTRITION

Sr.No	Name of the Chapter
1	General Study of body parts of different live stock .
2	Breeds and their identification
3	Management of live stock
4	Animal Nutrition
5	Feed and fodder production

1. General Study of body parts of different live stock

1.1 Common terms used in live stock
1.2 Live span of different animals
1.3 External body parts of the live stock and poultry
1.4 Internal body parts of the live stock and poultry

2. Breeds and their identification

2.1 Indigenous breeds of cattle and buffaloes
2.2 Exotic breeds of white cattle
2.3 Breeds of sheep and goat
2.4 Breeds of poultry and swine

3. Management of live stock

3.1 Restraining methods (handling) of animals
3.2 Ageing of animals and methods of identification of animals
3.3 Advice of management of dairy animals
3.4 Advice on calf management
3.5 Deworming schedule of live stock and poultry
3.6 Advice on management of sheep and goat
3.7 Advice on management of poultry
3.8 Advice on management of Piggery

4. Animal Nutrition

4.1 Common feed ingredient used in live stock feeding
4.2 Utilization of agro – industrial by products
4.3 Requirement of feed and fodder to the different classes of animals
4.4 Techniques to improve low quality fodder crops.

5. Feed and Fodder Production

5.1 Cultivation practices of different fodder crops
5.1.1 Fodder crops
5.1.2 Plaster development
5.1.3 Fodder tree development
5.2 Advice on fodder conservation methods
5.2.1 Hay making
5.2.2 Silage making
5.3 Chaffing of fodders

PRACTICAL – I -- ANIMAL MANAGEMENT AND NUTRITION

1. Sketch diagrams of external body of different animals
2. Sketch diagrams of internal body parts of different animals
3. Restraining of different breeds
4. Restring methods of animals
5. Determination of age
6. Models of animal houses
7. Feeding of colostrums to the calf
8. Weaning practices
9. Identification methods
10. De-worming schedule and practices
11. De-horning
12. Clean milk production
13. Cleaning and sanitization of sheds
14. Management of animals until maturity
15. Identification of feed ingredients
16. Preparation of feeding schedules
17. Layout of fodder plots
18. Preparation of cropping programme
19. Process of hay making
20. Process of silage making
21. Chaff cutting practices
22. Urea treatment of straws
23. Visit to live stock forms
24. Visit to feed plant
25. Visit to fodder seed production
26. Record keeping

THEORY - II -- PREVENTIVE HEALTH CARE AND VETERINARY FIRST AID

Sr.No	Name of the Chapter
1	Different types of Vaccines
2	Awareness on Vaccines to the farmers
3	Preservation of Vaccines
4	Method of doing Vaccination
5	Examine Animals
6	Compound and dispense medicines
7	Perform first aid
8	Follow-up till cured

1 Different types of Vaccines

1.1 The type of vaccines available in A.P. for dairy animals
1.2 Vaccination schedule in different classes of animals
1.3 Dosage of vaccine, routs of administration and period of immunity

2. Awareness on vaccination to the farmers

2.1 Methods for publicity on vaccination
2.2 Advise farmers on vaccination

3. Preservation of vaccine

3.1 Methods for preserving vaccine while transportation
3.2 Perform instrument sterilization
3.3 Methods for preserving of vaccine while vaccination at camps
3.4 Disposal of utilize and empty vaccine

4. Method of doing vaccination

4.1 Method of reconstitution of the vaccine
4.2 Procedure of vaccination in different animals
4.3 Post-vaccination complications and how to overcome the complications
4.4 Record keeping of vaccination register

5. Examine animals

5.1 Recording the history of the animals
5.2 Signs of health and ill-health
5.3 Normal values of body temperature, pulse, respiration and their recording

6. Compound and dispense medicines

6.1 Formulation of medicine
6.2 Route and dosage of the medicine

7. Perform first-aid

7.1 Different types of bacterial, viral, parasitic and protozoal diseases
7.2 Identification of Veterinary First Aid of the above diseases
7.3 Type of abscesses
7.4 Type of wounds and wound dressing
7.5 Type of fractures
7.6 Collection and dispatching of materials to the laboratory for examination

8. Follow-up till cured

8.1 Importance of follow-up
8.2 Handle and care to sick animals
8.3 Need and methods for isolation of sick animals.

PRACTICAL – II -- PREVENTIVE HEALTH CARE AND VETERINARY FIRST AID

1. Recording of history of the animals
2. Identification of outbreaks
3. Preparation of epizootological
4. Preparation of posters and charts
5. Advice farmers on vaccination
6. Identify vaccines available in A.P.
7. Vaccination schedules in different animals
8. Practicing different types of vaccines administration
9. Sterilization of equipments
10. Practice of preservation of vaccine at transport and camp
11. Method of reconstitution of vaccine
12. Care of post vaccine
13. Record keeping of vaccination register
14. Preparation of different types of mixtures, powders and their dosage
15. Practicing drenching
16. Practicing of injections (I/M, I/V, subcutaneous)
17. Contains of first aid box
18. Dressing of wound and surgical bandages
19. Different types of fractures and their corrections
20. Observation of symptoms of bacteria, viral, parasitic and protozoal diseases
21. Observation of symptoms of Systemic diseases like, bloat, entireties, Pneumonia etc.
22. Drugs used in veterinary first aid their dose and routs of administration
23. Isolation of sick animals.
24. Dispatch of material to laboratory for examination
25. Visit to vaccine production unit.

THEORY - III - FROZEN SEMEN TECHNOLOGY

Sr No	Name of chapter
1	Reproductive organs of cow and bull
2	Symptoms of heat
3	Castration of dairy animals
4	Artificial insemination

1. Reproductive organs of cow and bull

1.1 Sketch diagram of female reproductive system
1.2 Sketch diagram of male reproductive system

2. Symptoms of heat

2.1 Symptoms of heat in cow
2.2 Symptoms of heat in buffaloes
2.3 Hormones, vitamins and minerals responsible for heat
2.4 Oestrus cycle

3. Castration of dairy animals

3.1 Advice formers on castration of bulls.
3.2 Casting of animals
3.3 Sterilization of castrate
3.4 Performing castration
3.5 Care to be taken on post castration

4. Artificial Insemination

4.1 A.I. advantages & disadvantages
4.2 Cleaning and sterilization of A.I. equipment
4.3 Advantages of cross breeding
4.4 Different equipments required in A.I.
4.5 Up keeping of liquid nitrogen container
4.6 Collecting history of the animal owner
4.7 Examine animals for heat symptoms
4.8 Loading of A.I. gun
4.9 Procedure of conducting A.I.
4.10 Advice formers on post A.I. care and follow up
4.11 Record keeping.

PRACTICAL – III - FROZEN SEMEN TECHNOLOGY

1. Sketch diagrams of reproductive system of cow and buffaloes
2. Observation of heat symptom
3. Palpation of reproductive organ
4. Sterilization of castrator
5. Methods of casting animals
6. Procedure of castration
7. Dressing of castration wound
8. Sketch diagram of L.N. container
9. Care and handling of L.N. container
10. Procedure to take out the semen straw from L.N. container
11. Thawing of semen straw
12. Observation of external and internal signs of pregnancy
13. Practicing of A.I. gun into cervix
14. Advice formers on post A.I. care
15. Follow up after A.I.
16. Maintenance of A.I. related registers
17. Visit to semen bank
18. Visit to slaughterhouse.

List of Tools & Equipment should be Available In Institute

SR.No.	Name of the Tools & Equipment	Qty. Required
1	. Model body parts (External) of different animals	1 No
2	. Model body parts (Internal) of different animals	1 No
3	. Model of Reproductive organs of animals	1 No
4	. Model of Different breach of animals .	1 No
5	. Tattooing set	1 No
6	. Branding set .	1 No
7	. Ear tagging punch .	1 No
8	. Ear tags	100 Nos
9	. Burdizzo's castrator (large) .	1 No
10	. Burdizzo's castrator (small) .	1 No
11	. Bull nose ring	1 No
12	. Bull rope	1 No
13	Casting rope .	1 No
14	. First Aid Box	1 No.
15	. Trocar and canula	1 No.
16	. Electric Dehorner	1 No.
17	. Forceps .	2 No.
18	. Scissors	2 No.
19	Mouth gag .	1 No.
20	. Cattle trevis .	1 No.
21	. Artificial insemination equipment	1 Set.
22	. Refrigerator .	1 No.
23	. Thermos Flask	4 No.
24	. Sterilizer .	1 No.
25	. Glass Jars 500ml	12 No.
26	. Glass Jars 1000ml	12 No.
27	. Glass Jars 1500ml .	12 No.
28	. Students micro scope .	1 No.
29	. Weighing balance	1 No.
30	. Pest & Mortar .	1 No.
31	. Feed sample bottles (plastic)	48 No.
32	. Plastic aprons	10 No.
33	. Gloves	100 No.
34	. Gum boots	2 No.
35	. Vaccination kit	1 No.
36	Syringes glass 2ml, 5ml, 10ml, 20ml	1 Dozen. each
37	. Syringes metal 2ml, 5ml, 10ml, 20ml	1/2 Dozen each
38	Needles 15G, 18G, 20G	2 Dozen each
39	. Suture needles	1 Dozeneach
40	. Thermometers	6 No.
41	. Slides and cover slips .	100 Nos.
42	. Chaff cutter	1 No.
43	. Feeding cup .	6 No.
44	. Probang .	1 No.
45	. Bucket & mugs .	6 No.

Raw Materials Required

Sr No	Description	Qty Required
1	Washing Soda	1000gm
2	. Castic Soda	500gm
3	. Liquid soap .	3Ltrs
4	. Bleaching powder	25Kg
5	Urea	50Kg
6	. Straus (Paddy or Jowar)	200Kg
7	. Tattooing ink	200ml
8	. Phenol .	2Ltrs
9	. Teapol	2Ltrs
10	. Petroleum jelly	1Kg
11	. Formaldehyde	1Ltr
12	. Boric acid	2Kg
13	. Copper suliphate	500gms
14	. Sodium Chloride	500gms
15	. Ginger	2Kg
16	. Gention	2Kg
17	. Chirreta	2Kg
18	. Ereata	2Kg
19	. Kaobin	2Kg
20	. Keltachu 2kg	2Kg
21	. Nuxomica	2Kg
22	. Iodine	2Kg
23	. Poltassium iodie	500gms
24	. Zick oxide	500gms
25	. Acetic Acid	500gms
26	. Ammonium Sulphate	500gms
27	. Liquid Ammonia	500ml
28	. Chloroform	500ml
29	. Sodium Hydroxide	500gms
30	. Benjoic Acid	500gms
31	. Salclic Acid	500gms
32	. Sodium Corbonate	500gms
33	Sodium Sulphate	500gms
34	. Pottasium Ditromate	500gms
35	. Tri Sodium Citrate	500gms
36	. H.S. Vaccine	1Bottle
37	. B.Q. Vaccine	1Bottle
38	. E.T. Vaccine	1Bottle
39	. FMD Vaccine	1Bottle
40	. R.D Vaccine	1Bottle

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2. Farm animal management and poultry production. Sastry NSR Thomas C.K. And Singh R.A. Vikas, Publication
3. Characteristic of cattle and buffalo breeds of India I.C.A.R. New Delhi (1979)
4. Hand book of animal husbandry. ICAR, New Delhi 1978
5. Dairy farming and milk production C.P.Anathkrishna & P.N. Padmanabhan Shri LakshmiPublicaion 42, Harelys Road, Kalipank, Madras.
6. Forage crops of India. T.R. Narayan and PM. Dabadhao
7. Outlines of Dairy Technology S.De
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9. Animal Nutrition and feeding practices, Ranjan S.K.
10. Artificial insemination of farm animals, Perry, J.Ed
11. Veterinary medicine, D.C. Blood and J.A.Henderson, 4th Ed.
12. Management and feeding of buffaloes. Ranjhan, S.K.and pathak N.K.
13. A text book of extension education, Ranjit Singh
14. Forage production conservation and recycling of farm wastes, inst-cum-Prac Manual, NCERT
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