

**KAMDHENU UNIVERSITY
GANDHINAGAR**

**REGULATIONS FOR AFFILIATION OF POLYTECHNIC IN ANIMAL
HUSBANDRY TO KAMDHENU UNIVERSITY, 2015**

1. Short Title, Extent and Commencement:
 - (i) These regulations shall be called "**Regulations for Affiliation of Polytechnic in Animal Husbandry to Kamdhenu University, 2015**".
 - (ii) These regulations will be effective from the date of notification and shall also apply to the institution under the process of affiliation and those institution accorded affiliation provisionally to Kamdhenu University.
2. Definitions - In these regulations, unless the context otherwise requires:
 - a) The words and expressions shall be the same as defined in the Kamdhenu University Act, 2009.
 - b) "Institute" or "Institution" means an institution or organisation registered under the appropriate laws of State i.e. Societies Registration Act, 1860, Bombay Public Trust Act, 1950 etc. or a Company incorporated under the Companies Act, 2013 (Act No. 18 of 2013) as amended from time to time or the State/Central Government institutions and/or a Polytechnic which has been accorded provisional affiliation to impart education leading to Diploma in Animal Husbandry.
 - c) "Affiliation" means affiliation accorded to a Polytechnic, whether private or public, by whatever name called, (provisional or permanent, as the case may be) with the University with respect to specific academic programmes;
 - d) "Polytechnic" means for the purpose of these regulations, an Institution affiliated to the University and providing courses of study leading to Diploma in Animal Husbandry;
 - e) "Principal" means head of an Affiliated Polytechnic or Institution;
 - f) "Teacher" means for the purpose of these regulations, a person, known by any rank, appointed/hired by the Affiliated Polytechnic or Institution for the purpose of imparting instruction;

3. Applicability:

These regulations shall apply to all those institutes as defined in regulation no. 2(b).

4. General Regulations and Procedure for Affiliation:

- (i) The institute desirous to start a Polytechnic shall apply to the Registrar in the prescribed Application Form (Appendix-I), which shall be made available at a charge of Rs. 10,000/ (Rupees Ten thousand only) in the form of Demand Draft drawn in favour of the Kamdhenu University before 31st March of the year preceding the year from which affiliation is intended to take effect. Late applications shall not be considered.
 - (ii) The applicant shall have proven financial capabilities of annual turnover of minimum Rs. one crore as evident from last three year's Income Tax Returns.
 - (iii) The applicant shall have its own buildings and land with undisputed ownership and possession of the buildings and/or land proposed for starting a Polytechnic.
 - (iv) The applicants shall have corpus funds of minimum Rs. 20 lacs and shall have minimum 20 acres of contiguous land under its clear title exclusively for the Polytechnic. Documentary evidences and affidavits shall be produced in this regards at the time of application. The affiliation shall not be granted for rented facilities.
 - (v) The Institute shall have infrastructure and other facility for the purpose of teaching and practicals are as per the Annexure I.
 - (vi) The application received by the Registrar shall be scrutinised by the Scrutiny Committee consisting of following members.
 1. Dean of Veterinary Faculty - Chairman
 2. Two experts to be nominated by Vice Chancellor
 3. One representative of Director of Animal Husbandry not below the rank of Joint Director
 4. Registrar - Secretary
- The above said committee shall strictly scrutinise the application in the light of above said clauses of these regulations and recommend for further necessary actions.

- (vii) Having found satisfactory report of the scrutiny committee, the Registrar on the recommendation of the Scrutiny Committee, shall inform the institute to pay non refundable processing fees of Rs. 1,00,000/ (Rupees one lacs only) in the form of Demand Draft drawn in favour of Kamdhenu University.
- (viii) On receipt of the processing fees, the University shall constitute an inspection committee consisting of following members which shall visit the institution and will present its inspection report to the University.
1. Dean of Veterinary Faculty - Chairman
 2. Two experts to be nominated by Vice Chancellor
 3. One representative of Director of Animal Husbandry not below the rank of Deputy Director
 4. Executive Engineer of the University or his representative not below the rank of Deputy Engineer
 5. Deputy Registrar - Secretary
- (ix) The inspection committee appointed shall visit the institute and inspect all the documents, premises, financial capabilities, available infrastructures, academic and technical capabilities and other facilities of the institution. The institution shall, besides producing evidences of adequate financial capabilities as provided in the sub rule (iv) shall furnish a bank guarantee of an amount equivalent to six months' salary of teaching and non-teaching staff or a minimum of Rs 25,00,000/ (Rupees twenty five lacs only), whichever is higher, in favour of the University within one months of the commencement of the academic session.
- (x) The inspection committee shall submit its report to the Registrar within two months from the date of receipt of non refundable fees along with the requirements mentioned in sub rule (ix). The report shall be placed before the Board of Management with recommendations of the Academic Council and on approval of the Board of Management the Society/Trust shall obtain permissions /NOC separately from the State Government to start Polytechnic
- (xi) The Board of Management shall accord provisional affiliation for one year or reject the application with reasons in writing which shall be conveyed to the applicant by the Registrar. On approval of the provisional affiliation by the Board, the Institute shall have to remit a non refundable one time affiliation fees of Rs. 10 lacs (Rupees ten lacs only) in the form of Demand Draft to the University before the beginning

of common admission process by the University, failing which the institute will not be permitted to start the academic programme for that year.

- (xii) The renewal of affiliation in subsequent years shall be accorded by the Board of Management on recommendation of the Academic Council and inspection committee as prescribed in sub rule (ix) on receipt of application for renewal from the institute. The inspection committee for renewal of affiliation shall visit the institution before 30th April of that year on receipt of non refundable inspection fee of Rs. 25,000/ (Rupees twenty five thousand only) by 31st March every year. The fees for visit of inspection committee shall have to be remitted for each such visit of inspection committee. The amount of fees may be revised by University without notice. This will also apply to the institutions under provisional affiliation until they are permanently affiliated.
- (xiii) Any institution whose application for affiliation has been rejected, may apply afresh as per the procedure laid down.

5. Admission, Fee Structure and Examinations:

- (i) The admission procedure for diploma course shall be as provided in the Regulations for the Award of Diploma in Animal Husbandry.
- (ii) The Institute shall compulsorily participate in centralized admission system and in no case admit students directly on its own.
- (iii) The intake capacity for Polytechnic in Animal Husbandry course shall be initially 30 students which may be increased up to maximum of 60 students per year on recommendations of the inspection committee and on approval by the Academic Council.
- (iv) The institution may issue advertisements for promotional purpose but in no case shall issue any advertisement for admission pertaining to concerned academic year.
- (v) The Institute may charge fees to the students as prescribed by the University from time to time.
- (vi) The entire process of conduct of final/end term examinations, evaluation and related issues for the diploma course shall be under the direct control and supervision of the Kamdhenu University.

6. Award of the Diploma:

After successful completion of the course, the diploma certificates (provisional or otherwise) shall be issued to the students by the University only.

7. Faculty and Support Staff:

The strength and qualifications of the teaching as well as supporting staff and the conditions governing their tenure of office shall be such as provided in Annexure I.

8. Recruitment of Staff:

(i) The teaching and other technical staff shall be recruited as per the recruitment rules prescribed by the University;

(ii) For recruitment of the Principal of the Polytechnic, selection committee which shall include a representative of the University nominated by the Vice-Chancellor;

(iii) In case of recruitment of a member of the teaching staff of the Polytechnic, a representative of the University nominated by the Vice-Chancellor and the Principal of particular Polytechnic shall be members.

9. The institute may provide residential accommodation to the Principal and other members of the teaching staff in or near the Polytechnic or the place provided for the residence of students.

10. University shall not be responsible for any kind of delay in affiliation.

11. The provisionally affiliated institute which completes five years shall apply for permanent affiliation to the University.

12. Regulations for Permanent Affiliation:

a. Eligibility Criteria for granting Permanent affiliation:

(i) The Polytechnic shall have completed at least five years of satisfactory performance after getting first provisional affiliation and attained the academic and administrative standards as prescribed by the University from time to time.

(ii) The Polytechnic must have completed all necessary infrastructure prescribed under the regulations as stipulated from time to time.

(iii) All the teaching and non-teaching staff are appointed on regular/permanent basis on scale of pay as per ICAR/Government.

- (iv) The affiliated Polytechnic shall furnish such reports, returns and other information as the Board, after consulting the Academic Council, may require enabling it to judge the efficiency of the Polytechnic or the institution.
- b. Procedure for Granting Permanent Affiliation
 - (i) Polytechnic which wishes to get permanent affiliation shall apply to the University any time after completing five years of first provisional affiliation in the prescribed proforma.
 - (ii) The procedure for according permanent affiliation, the proforma for application and inspection fees shall be the same as for granting provisional affiliation given in the regulations.
 - (iii) If the University decides not to recommend for granting permanent affiliation to the Polytechnic for reasons, to be recorded in writing, of its failure to meet the conditions / requirements for getting such affiliation, the Polytechnic may apply again as and when it fulfils the conditions / requirements subsequently, but not earlier than six months from the date of rejection of its earlier application.
- 13. The University shall accord provisional affiliation to a Polytechnic/ Institution until it fulfils the requirements of permanent affiliation as mentioned under the rule 12.
- 14. The institute which is accorded provisional affiliation is authorized to mention the status in the form of “Provisionally Affiliated to Kamdhenu University” on their signboards, letterheads, properties and other such documents.
- 15. Till a Polytechnic/Institute is permanently affiliated to the University as provided in these regulations, the Polytechnic/Institute shall not be authorized to declare its status anywhere as “Affiliated to Kamdhenu University”.
- 16. The affiliation granted under these regulations is non-transferable.
- 17. Every affiliated Polytechnic or recognized institution shall comply with the provisions of the Kamdhenu University Act, 2009 (specifically Section 46 to 52 Ch. VIII), its Statutes, Regulations and minimum standards and norms (Annexure I), as amended time to time. If any affiliated Polytechnic or recognized institution contravenes then,
 - (i) The rights conferred on such polytechnic or institution by the affiliation or recognition shall stand withdrawn from the date of such contravention and such polytechnic or institution shall cease to be an affiliated Polytechnic or recognised institution.

- (ii) The rights conferred on an institution by recognition may be withdrawn or suspended for any period if the institution fails/has failed to observe any of the conditions of its recognition or the institution has conducted in a manner which is prejudicial to the interest of education.
- 18. The decision of the University for granting or not granting provisional or permanent affiliation to any institution shall be final.

Annexure-I

Minimum Standards and Norms for Affiliation of Polytechnic in Animal Husbandry to Kamdhenu University

Minimum requirement of land / building infrastructure of Main Polytechnic building, Instructional Farm, Veterinary Dispensary, Hostels etc., and Manpower shall be as per guideline given below:

A. Land: Minimum 20 acres of land with ownership or on long term lease in the name of institution under its clear title exclusively for the Polytechnic.

B. Infrastructure:

Sr. No.	Item	No.	Space Req. (sq. m.)
A	<u>Buildings</u>		
1-a	Main Polytechnic Building		
	a. Principal's Chamber (with ante room for PA and visitors)	1	30
	b. Conference / Meeting hall (20-25 sitting capacity)	1	50
	c. Office room for teaching staff (6-10 sitting capacity)	1	60
	d. Office room for non-teaching staff (3-5 sitting capacity)	1	50
	e. Store room	1	20
	f. Lecture halls/ Class rooms	2	80 each
	g. Multipurpose hall (200 sitting capacity)	1	200
	h. Library	1	50
1-b	Laboratories (each having capacity of 30 students)		
	a. Anatomy Laboratory	1	80
	b. Basic Subject Laboratory (Physiology, Biochemistry, Pharmacology & Animal Nutrition)	1	80
	c. Animal Genetics & Breeding, Statistics & Computer Laboratory	1	80
	d. Diagnostic Laboratory (Pathology, Parasitology & Microbiology)	1	80
2	Instructional Farm (with LPM and Extension Education Laboratory)	1	1000-1500
3	Veterinary Dispensary (with AI Laboratory)	1	200
4	Hostels (For 150 Boys & 50 Girls)	2	4000
B	<u>Student Amenities</u>		
1	Play Ground and Sports Complex	1	2 acres land
2	Student Bus	1	

* Adequate basic facilities and other civic amenities such as hygienic drinking water, toilets (gents and ladies), sewerages, biological waste disposal etc. must be provided at all buildings and farm.

1. Main Polytechnic Building:

The buildings in which the Polytechnic is or is to be housed shall be suitable to impart education and are as per standards mentioned above. No other educational programme shall be permitted to be undertaken in the same buildings.

Laboratories: The facilities including equipments, chemicals, glass wares and charts in respective laboratory are as per Annexure 1-A. Besides this all laboratories must be provided with minimum 30 stools, black/white board, projector, laboratory tables/platforms and basic civic amenities.

2. Instructional Farm:

Following infrastructure and facilities will be mandatory for instructional farm. The organization or institution can have a long term MOU with a similar or larger animal farm for imparting education. In such case, the farm must be in the vicinity of the Polytechnic and there should be enough provision for transportation of students to the location of the animal farm.

The Instructional farm should also accommodate laboratory for conducting practical for Livestock Production and Management and Extension Education courses. The minimum equipments and material for imparting education are as per Annexure 1-B.

• Buildings

Category	No.	Space Req. (sq. m.)
Office cum Laboratory	One	80
Animal sheds	Cattle & Buffalo unit	as per the standard space requirements for each species
	Sheep & Goat unit	
	Horse & Camel unit	
	Poultry unit	
Storage facilities for feeds & fodder	Fodder Godown	as per need
	Silo pit	

• Livestock & Poultry

Category	No. of Animals/Birds
Cattle	15-20
Buffalo	15-20
Bullocks	2 (1 pair)
Sheep	10-20
Goat	10-20
Horse (Optional)	2 (male & female)
Camel (Optional)	1
Poultry	100-200 birds

• Fodder Production Unit

Land	10-20 acre
Irrigation	bore well/ open well/ canal irrigation
Fodder Farm Implements	as per need

3. Veterinary Dispensary:

The organization or institution must have its own well equipped Veterinary Dispensary having following required building facilities for diagnosis and treatment of medicinal, surgical and gynaecological ailments of different animal species.

- Reception cum registration counter
- Animal Examination Section: Medicine, Surgery & Gynaecology unit
- Operation theatre
- Recovery room
- Indoor patient ward

In absence of such dispensary the Polytechnic may have an MOU with the nearby government or non-government organization with such dispensary for imparting education initially for the first three years only.

The veterinary dispensary should also accommodate AI laboratory for conducting practical. The minimum equipments and material for imparting education are as per Annexure 1-C.

4. Hostel facilities:

The organization or institution has to make appropriate provision for the boys and girls hostel as per standards. The hostels are in the vicinity of the polytechnic with all the civic amenities or facilities for the welfare of the students;

- Two separate hostels for boys and girls having adequate accommodation facilities for boys and girls. Hostel accommodation of twin or triple sharing basis is desirable.
- Accommodation facilities for warden and deputy warden near the hostels will be desirable. Warden for the girls' hostel will be mandatory.
- Student's mess and common room will be mandatory.

5. Library:

Due provision is made or shall be made for a library. The library facility with reading room will be mandatory and should be a part of the main polytechnic building with computers, internet and reprographic services.

The library must be possessing required multiple copies of the text books covering all the subjects of the course syllabus besides reference books, journals, periodicals, newspapers etc. The minimum number of books in the library should be 1000 (excluding literature and general purpose books). An indicative list of the books is given in Annexure 1-D.

6. For a polytechnic having intake capacity of 30-60 students below mentioned staff will be mandatory:

Sr. No.	Post	No.	Remarks
1	Principal	1	Qualifications and Experience are as per the University or Government of Gujarat norms, as the case may be.
2	Assistant Professor	3	
3	Veterinary officer	3	
4	Farm manager	1	
5	Livestock Inspector	2	
6	Laboratory Technician	4	
7	Computer Operator	1	
8	Clerks	2	
9	Animal Attendants	4-6 as per need	
10	Driver	1-2 as per need	

Annexure 1-A

Equipments, Labwares and other material for laboratories:

<u>Anatomy Laboratory</u>	
Bone-sets for each species, viz. Cattle, Buffalo, Sheep, Goat, Horse, Camel, Dog, Cat, Fowl etc.	Articulated skeleton one for Horse, Sheep/Goat, Buffalo, Dog/Cat, Camel, Fowl etc.
Student Microscopes	Ice-Box
Charts and models of different organs of large, small and pet animals and birds	Specimen slides of histology & embryology 5 sets each
Binocular microscopes	Staining Jars
Glass wares As per need	Steel Racks for bones store
Coupling Jars	Tissue disposal Buckets
<u>Basic Subject Laboratory (Physiology, Biochemistry, Pharmacology & Animal Nutrition)</u>	
Analytical balance	Desiccators
Burettes, Pipettes of different volume	Haemagglutination plate
Calorimeter	Isolated organ bath
Centrifuge (1000 RPM)	Mortar and pastel (porcelain and glass)
Common Balance	Microhematocrit tubes As per need
Compound microscopes (with eye pieces and objectives etc. complete)	Measuring glasses, cylinders of various sizes
Distillation units	Spectrophotometer
Electrophoresis apparatus	Sphigmo manometers (dial type)
Glass ware As per need	pH meter
Mono pan digital balance	Photometer
Muffle furnace	Samples of feeds & fodders
Soxhlet apparatus set	Hot air oven
Spatula (iron, plastic and ebonite)	Refrigerator
Student microscopes	Haemoglobinometer sets
test tubes	Water bath
Top pan balance	Haemocytometer sets
Volumetric flasks	
<u>Animal Genetics and Breeding , Statistics & Computer Laboratory</u>	
Charts of Breeds of different species in India and world	Charts and diagram of breeding systems, genetic experiments etc.
Set of 10 computers with internet facilities	UPS and printers as per need
<u>Diagnostic Laboratory (Pathology, Microbiology & Parasitology)</u>	
Autoclave	Deep-freeze (-20 c degree)
Autopsy knives	Desiccators
Glass-ware, cottons wool, syringe, media, sugars, etc. As per need	Specimens of different organs (pathological), parasites etc.
Binocular microscopes	Autopsy table
Plastic tubs & buckets with lid for specimen collection and transport	Hanging drop preparation slides with cover slips

Centrifuge	Hot air oven
Containers, specimen jars, wide-mouthed bottle As per need	Post-Mortem sets (with chisels, saw rib cutter, shears, bone cutter, saw, sharpener)
Incubator	Petri-dishes 3" and 4" As per need
Instrument sterilizers	CO2 Incubator
Knife sharpener	Platinum loops As per need
Microscope Phase contrast	Perspex plates for HA, HI tests
Microscope with high power (HP) Oil immersion	Post-mortem tables (trolleys) for small animals
Protective wears (gloves, rubber apron, goggles, gum-boots, masks & cap)	Specimen washing sinks (with hot & cold water)
Refrigerator	Spectrophotometer
Slide Boxes	Staining jars, coupling jars etc. As per need
Specimen bottles, jars etc.	Water bath
Specimen cutting table	Surgical instrument As per need
Specimen slides of various histo-pathological lesions.	Vernier callipers
Students microscopes (complete with eye pieces and objectives)	Washing and disinfecting facility, aerosols etc.
<u>Contingencies/Consumables:</u>	
Chemicals and Reagents (quantity required as per need)	
Acetone	Sodium Nitrite
Acriflavin	Liquid Paraffin
Alizarine	Sodium hydroxide
Ammonium chloride	Magnesium Sulphate
Boric Acid	Alcohol
Buffer solutions	Salicylic acid
Castor oil	Copper Sulphate
Conc. H2SO4	Sodium carbonate (AR)
Conc. HCl	Acetic acid
Diluted HCl	Methylene blue tablet
Ethyl Alcohol	Sodium hypo chloride solution
Ferric chloride solution	Sodium bicarbonate
Filter paper Whatman No. – 42	Rosalic acid solution
Zinc sulphate	Magnesium sulphate
Giemsa stain	Lead acetate
Iodine	Sodium Tri. Poly Phosphate
Iso-amyl alcohol (specific gravity 0.814 – 0.816)	Phenol solution Trichloroacetic acid solution (TCA) – 24 % (w/v)
pH paper strips	Iodine Crystal
Kaolin	Boric Acid
KOH	Copper sulphate
Leishman's stain	Sodium bicarbonate
NaCl	Glycerine
NaOH	Disodium p-nitro phenyl phosphate
Paraphenylene – diamine solution	Methyl Alcohol
Pectin	Phenyl
Phenolphthalein indicator	Magnesium Oxide

Plaster of Paris	Turpentine oil
Potassium Iodide	Sodium Nitrate
Zinc oxide	Iodoform, Sulphur
Red Iodide of Mercury	Sodium acetate
Resorcinol powder/flakes	Sodium Acid Phosphate
Sodium Iodide	Bismuth subnitrate
Standard sodium hydroxide solution	Potassium Permanganate
Wood charcoal	
Glass wares (required as per need)	
Test tubes (10, 15 ml)	Flask (50, 100, 200, 500 ml)
Beaker (100, 250, 500 ml)	Test tube stand
Glass slides	Glass pipette (2, 5, 10, 25 ml)
Measuring cylinders (50,100,200,500 ml)	Cover slips
Charts: Below mentioned charts should be provided in respective laboratories	
1. Cell structure	
2. Muscular system of all animals (cattle, sheep, goat, dog, cat, poultry etc.)	
3. Digestive system of all animals (cattle, sheep, goat, dog, cat, poultry etc.)	
4. Respiratory system of all animals (cattle, sheep, goat, dog, cat, poultry etc.)	
5. Urinary system of all animals (cattle, sheep, goat, dog, cat, poultry etc.)	
6. Urogenital system of all animals (cattle, sheep, goat, dog, cat, poultry etc.)	
7. Skeletal system of all animals (cattle, sheep, goat, dog, cat, poultry etc.)	
8. Vaccination calendar for different animals	
9. Various ecto-endo parasites	
10. Different breeds of each species	

Additional equipment/material required for practical training to students as per course curriculum may be added as per the need.

Annexure 1-B

Equipments, implements and related material for Instructional Farm:

▪ **Equipments and Implements**

Tractor and trolley	Maximum-Minimum Thermometer
Shearing and clipping equipment	Milk cans
Debeaking machine	Milking pales
Tattooing set, Ear tag applicator etc.	Milk measures
AI equipment (different species)	Models of Silo pit
Egg Candler	Branding set
Incubator (Hatchery)	Different registers for farm records
Brooder	Electric clipper
Milking Machine	Chaff cutter
Vernier Callipers	Micrometer Screw Gauge
Dairy models	Housing models
Lactometer	Ropes for different halters
Bull holder	Bull nose punch
Trocar and canula	Body brush
Metal/Plastic tags	Tag punch
Electric dehorner	Saw
Mouth gags	Buckets
Drencher	Clinical thermometer
Brooder guard	Grower battery
Layer battery	Chick feeder
Grower feeder	Layer feeder
Hanging feeder	Range feeder
Chick feeder/waterer	Grower drinker/waterer
Adult drinker/waterer	Earthen waterer
Water channel	Wing band
Leg band	Grinder and mixer
Automatic vaccinator syringe	Essential medicines and vaccines
Burdizzo Castrator (for large and small ruminants)	Laminated Photographs of different breeds of cattle, buffalo, sheep, goat, horse, camel, poultry etc.

Any other material required for proper and smooth function of the farm and laboratory may be added.

Annexure 1-C

Equipments and related material for Veterinary Dispensary and Clinical & AI Laboratory:

▪ **Equipments:**

Probang	Sheath
AI equipments	Semen shippers
Artificial Vaginas	Travises
Autoclave	Straight atraumatic needles
Trocar & Cannula	All instruments of fetotomy
Binocular microscopes	Palpation tables
Burdizo castrator - For large and small animals	Vaginal speculum for small and large animals
Butter fly (For IV inj. in small animals)	Artificial Vagina
IV stands	Microscopes
Catheters	Assorted artery forceps
Cotton ropes	Hot air oven
Dehorner	Clinical thermometer (glass, digital)
Dental instruments for large and small animals	Different types of suture material (cotton, silk, stainless steel, catgut, vicryl etc.)
Digital pH meters	Ultra sonography machine (optional)
Disposable syringes	Phantom box
Distillation units	Stethoscopes with multiple ear-pieces
Drenching gun	Disposable sleeves
Dressing equipments	Animal transport trolley (optional)
Electro ejaculator	Storage tubes (cylinders)
Enameled trays	X-ray unit (optional)
Endotracheal tubes (cuffed and non-cuffed)	Muzzle for dog
Glass wares, As per need	Surgical instruments
Gloves and other plastic wares	AI box
Haemocytometers	Swab holders
Hoof pincer	Stainless steel saw
Hoof rasper	Seton needle
Hoof tester	Curette
Thumbs forceps	Vaginal clamps (large & small)
Incubator	Chisel and Hammer
Insemination catheters, As per need	Water bath
Instrument cabinets	Curved atraumatic needles
Instrument/syringe sterilizers	Biopsy instruments
Insulating bags	Water suction pump
IV sets	Refrigerator
Large animal trolley-cum-operation tables	Mayo scissors
Latex lining for assorted AV	Whelping set
Mouth gag for cattle and horse	Auto clave
Needle holder	Cheatal forceps
Needles (different sizes)	Obstetrical instruments
Operation table for small and large animals	Weighing instruments/scale

Operation tables for calves with drain	Straight traumatic needles
Orthopaedic instruments	B.P. blades & B.P. handles of different no.
Plaster saw	Teat tumor extractor
Plaster spreader	LN2 containers
Slides and Cover slips	Hobbles
Rope, buckets, irrigators etc.	Curved traumatic needles
Uterine catheters	Glass-ware, syringes, drugs, medicine, etc
Tattooing set	Vaccinator
Teat and udder instruments (optional)	Stomach tubes for ruminants
Teat bistuary	Rumenotomy set
Teat siphons	

▪ **Medicines and Drugs:**

All routinely used medicines as per requirements should be available at veterinary dispensary.

One vial of each antibiotic
One vial of each anti-inflammatory
One vial of each steroid
One vial of each antipyretic
One bottle of each fluid therapy
Tablets/Bolus/Injection/Packet of each Dewormer
All types of herbal medicines
One vial of each haemostatic drug
All varieties of intra-mammary preparations
Different varieties of antiseptic creams and solutions
<u>Vaccines:</u> All available vaccines
- Vaccines against FMD, HS, BQ, Theilera, Brucella, Anthrax etc.
- Dog vaccines
- Vaccines of Poultry

Annexure 1-D

Indicative list of reference books for library:

Sr. No.	Name of Book	Authors
1	Primary Veterinary Anatomy	R.K. Ghosh
2	Applied Anatomy of Domestic Animals	R.L. Bhardwaj, Rajesh Rajput, K.S.Roy
3	Handbook of Animal Husbandry	ICAR
4	Textbook of Animal Husbandry	G.C. Banerjee
5	Rearing of Cattle	Lal Mohan Mandal
6	Programme in Basics	Balgurusamy
7	Computer Primer	Rajaraman
8	Introduction to Animal Physiology	Jindal S.K.
9	Dukes Physiology of Domestic Animals	Swenson
10	Basics of Environmental Science & Engineering	Sivashanmugam, P
11	Fundamentals of Biostatistics	Khan & Khanun
12	Handbook of Biostatistics	Chandel
13	Textbook of Animal Breeding	Tomar S.S.
14	Extension Communication & Management	G.L. Ray
15	Animal Husbandry & Veterinary Extension	Peru Methialjn
16	English Guru Package	
17	Pathmala Vol 1 to 4.	
18	Animal Nutrition	G.C. Banerjee
19	Applied Nutrition	D.V. Reddy
20	Introductory Microbiology	Balchandar, D.
21	Practical Veterinary Microbiology	Panjaratihnam R.
22	Veterinary Bacteriology and Virology	Merchant & Packer
23	Objects and Short Questions in Veterinary Bacteriology & Mycology	B.S. Malik, C.S.Bakshi
24	General Veterinary Parasitology	P.C. Jain
25	Helminthes, Arthropods & Protozoa of Domestic Animals	Soulsby
26	Manual of general Veterinary Parasitology	Chaudhary S.S. & S.K. Gupta
27	Textbook of Veterinary Parasitology	Bhatia B.B.
28	Illustrated Special Veterinary Pathology	R.S. Chauhan
29	Special Veterinary Pathology	Thomason
30	A Textbook of Veterinary Systemic Pathology	Vegad
31	General Veterinary Parasitology	Brar R.S.
32	Helminthes, Arthropods & Protozoa of Domestic Animals	B.K. Roy
33	Manual of general Veterinary Parasitology	Garg Satish K.
34	Textbook of Veterinary Parasitology	V. Vaniprasad
35	Illustrated Special Veterinary Pathology	M. Pal
36	Special Veterinary Pathology	Mathialagan.P
37	A Textbook of Veterinary Systemic Pathology	Vegad.J.L.& A.K.katiyar

38	Veterinary Clinical Diagnosis by Laboratory Methods	Margaret.W et al
39	Veterinary Pharmacology & Toxicology	Ganti.A, Sastry
40	Veterinary toxicology	Rajeshwari, Y.B.
41	Veterinary Pharmacology & Toxicology	Rajeshwari, Y.B.
42	Zoonoses	Sharma, S.N.
43	Textbook of Animal Husbandry and livestock extension	Merck
44	A Textbook of Veterinary Special Pathology	Rahman, H.
45	Veterinary Clinical Parasitology	Dabas, Y.P.S
46	Veterinary pathology	Squires E.J.
47	Handbook of rabbit production & management	Asdell.S.A.
48	Handbook on care & management of Laboratory & pet animals	Shuttleworth, A.C. & R.S. Smith
49	Textbook of Veterinary virology	Somvanshi
50	The Merck veterinary Manual	Zemjanis, R.
51	Veterinary Public health new trends	Sapre.V.A.
52	All About Dogs: A Book for Veterinarians and Dog Lovers	Nanda A.S.
53	Applied Animal Endocrinology	Anderson, James
54	Cattle Fertility And Sterility	Martin. S. & Wayna et al
55	Clinical Veterinary Surgery in 2 Vols.	Dabas
56	Current Advances In veterinary Science and Animal Production in india	Roberts, J.
57	Diagnostic and therapeutics in animal reproduction	Pandey, D.N.
58	A Handbook for veterinary physician	Douglas, S.W.
59	Recent advances in animal reproduction and gynaecology	Dollar
60	The semen of animals and its use for artificial insemination	Frank, E.R.
61	Veterinary epidemiology: Principles and methods	Shukla, M.
62	Veterinary Jurisprudence and post mortem	Sharma & Neelash
63	Veterinary obstetrics and genital diseases	Kumar, H.
64	Veterinary practioners pet lovers handbook for dogs & cats	Gangwar, A.K. & Navin kumar.
65	Veterinary Radiological Interpretation	Rajeshwari, Y.B.
66	Veterinary Surgery	Dollar
67	Applied Veterinary Andrology & Frozen semen Technology	Shukla, M.
68	Clinical Veterinary Medicine: Practical Manual Series	Sharma & Neelash
69	Common Reproductive Problems in Bovines & Canine	Kumar. H.
70	General Animal Surgery & Anaesthesiology: With Theory & Practical	Gangwar, A.K. & Navin Kumar
71	Handbook on care & management of Laboratory & pet animals	Rajeshwari, Y.B.
72	Veterinary Surgery	Frank, E.R.