# SOCIETY FOR ADVANCEMENT OF VETERINARY EDUCATION

# STUDIES AND CAREERS IN VETERINARY SCIENCES

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#### I. INTRODUCTION

"Livestock" farms i.e animals including poultry etc., are backbone of agriculture and dairying. Health care for animals and birds, wild life preservation and pet care have, therefore, gained wide application especially in the Indian context with the growing awareness among farmers, villagers under rural environment on one hand and animal lovers (Pets) especially under Urban conditions on the other. Thus the education in this field has also gained importance due to the growing demand of poultry and dairy products being seen since the recent past. The health care of animals thereafter has also assumed great importance for which there is a need of educated and trained Veterinarians. Veterinary science is the study of animal disease their prevention and their cure. It involves both the clinical and surgical forms of treatment. Apart from this it also includes the breeding feeding and scientific rearing of livestock. Thus demand for trained veterinarians is growing fast.

The primary objective of a Veterinarian is to render services to the community by facilitating health care of animals, ensuring veterinary animal health, proper care, and hygienic measures for prevention of diseases and curing the sick animals and alleviating their sufferings. He is a person who is not only to treat the animals but also help them to remain in good health and be productive to the community. Thus, veterinary profession is suitable for those who love animals and have a compassionate pre-disposition for animals. Whosoever, chooses this profession should assume the obligation to conduct oneself in accordance with the noble ideals of serving the dumb and mute creatures. He/she should conduct himself/herself with propriety and professionalism which shall be obvious in all actions of his/her life. It shall be necessary for a Veterinarian to be temperate and clear in all matters of practice of his/her profession and quick and alert in application of his/her mind. He/she is to merit the trust and confidence of his clients(animal owners) by rendering his/her services with full dedication and devotion. Since, animals are not able to express or communicate their pains and sufferings, it is, therefore, essential for the veterinarian to be expert and specialized in understanding the locomotoral and gestural behavior of the animals to diagnose the causes of their ailments.

#### II. ACADEMIC PROGRAMME

#### **VETERINARY SCIENCE:**

Degree in Veterinary Science, like in medical science can be pursued after having completed (10+2) with physics, chemistry and biology. The degree course covers all subjects needed for the understanding of structural & functional status of livestock, its animal health, disease and treatments as well as breeding feeding & management practices for optimization of production potentials as mentioned in **Annexure -I.** First degree award is, either Bachelor in Veterinary Science (B.V. Sc) or Bachelors in Veterinary Science and Animal Husbandry (B.V. Sc & AH). Though the term Animal Husbandry does not suffix in the nomenclature of B.V. Sc. Offered by some of the Universities, however, the subject indeed is a part of the course. At the Master's and Doctoral Degree levels a large number of specializations are offered by most of the colleges (For details refer **Annexure -2** as an illustrative list.)

Presently there are 27 Universities/Institutions (see Annexure-5) which are offering different courses in Veterinary & animal Sciences. Out of these, four universities namely Tamil Nadu Veterinary and Animal Science & Animal Husbandry University (Chennai) and West Bengal University of Animal and Fisheries Science (Kolkata), Maharshtra Animal & Fishery Science University, Nagpur (MS) and Pandit Deen Dayal Upadhaya Pashu Chikhitsha Vigyan Vishwavidyalaya and Go-Anusandhan Sansthan Mathura, U.P. are exclusively devoted to Animal Sciences. Most of the Veterinary & Animal Sciences Colleges offer, besides first degree programme, Master's as well as Doctoral programmes. However, the Indian Veterinary Research Institute (IVRI), Izatnagar in UP offers only Post-Graduate and Doctoral courses in Veterinary & Animal Sciences while NDRI offers masters in some of the subject of animal sciences.

#### A. BACHELOR'S DEGREE PROGRAMME

#### **ADMISSION TO VETERINARY COLLEGES IN INDIA**

### (1) ALL INDIA COMMON ENTRANCE EXAMINATION CONDUCTED BY VETERINARY COUNCIL OF INDIA (VCI)

The Veterinary Council of India, the Regulatory Authority for Veterinary education conducts an All India Common Entrance Examination for admission to 15% of the total number of seats in Veterinary Colleges for the B.V. Sc & A.H. course. There are around 300 seats under VCI quota.

The duration of the graduate courses i.e. Bachelor of Veterinary Science & Animal Husbandry (B.V. Sc. & A.H.) is of 5 academic years including compulsory internship of six months duration.

#### \*ELIGIBILITY

An applicant is eligible for admission to the All India Common Entrance Examination of the VCI if he/she meets the following criteria.

- (1) Nationality: He/she is an Indian citizen by birth or by domicile.
- (2) <u>Age</u>: He/she has attained or will attain the age of seventeen (17) years as on the 31<sup>st</sup> of December of the year of admission.
- (3) <u>Qualification</u>: He/she has passed 12 years Senior Secondary Examination with minimum of Fifty percent (50%) marks fo<u>r General</u> Category and forty percent (40%) marks for SC/ST Category in aggregate in 4 compulsory subjects namely Physics, Chemistry (Organic & Inorganic) and Biology (Botany & Zoology) and English.
- (4) <u>Procedure to apply</u>: A copy of the bulletin of information containing the application form can be obtained from the office of the <u>Deputy Secretary of Examination</u>, Examination Section, Veterinary Council of India, Block-B, End Floor, August Kranti Building, Bikaji Kama Palace, New Delhi.

Application form complete in all respects shall be sent to the above mentioned address on or before the date notified by the Council.

#### (5) Competitive entrance examination:

The All India Common Entrance Examination is of 3 <sup>l</sup>A/ three and half hours) duration and will have one paper consisting of 200 objective type (multiple choice and reason-assertion type) questions, from Physics, Chemistry, Biology and General knowledge. The details of distribution of marks are as follows:

<u>Subject</u>	Total marks	
Physics	60	
Chemistry	60	
Biology (Botany and Zoology)	60	
General Knowledge	20	
Total	200	

The general standard of the All India Common Entrance Examination is that of 12<sup>th</sup> class under the 10+2 Scheme/pre-medical/Intermediate Science or an equivalent examination of an Indian University.

#### (6) Language of question paper.

Question paper will be provided in English to the candidates.

#### (2) ADMISSION UNDER STATE QUOTA TO VETERINARY COLLEGE

For rest of the 85% of admissions in Veterinary Colleges, the admissions are made on the basis of the Entrance Examination conducted by the respective Board/University of the states. Some Colleges/universities hold a joint Entrance Examination along with other professional courses like Medical, Dental, Engineering, Agriculture, etc.

#### \*eligibility

Entry qualification to B.V.Sc. & A.H. Course is 10+2 of CBSE or its equivalent in PCB and English. Other eligibility conditions including Reservation quota is prescribed by the University as per the State Government guidelines. Candidates desirous to seek ally of the state admission through State quota may refer the information bulletin of the University. Every year University issue notification for admission through national & state dailies.

### B. MASTER'S DEGREE PROGRAMME

#### A NATIONAL ADMISSION TEST

### COMBINED EXAMINATION FOR ADMISSION TO MASTER'S DEGREE PROGRAMMES

The Indian Council of Agricultural Research (ICAR) conducts common All India Test to fill-up 100% of the seats in Master's degree programmes in all branches of Agricultural Sciences including veterinary at the Indian Agricultural Research Institute (IARI), Indian Veterinary Research Institute (IVRI), Central Institute of Fisheries Education (CIFE) and National Dairy Research Institute (NDRI), and 25% seats in the State Agricultural Universities (SAU) & Central Agriculture University (CAU) through All India Combined Competitive Examination. The combined Examination is conducted at different Centres spread all over of the country to enable a large number of students to seek admission to Master degree programmes in different disciplines of Agriculture, Veterinary and Allied Sciences.

ICAR also offer 475, Junior Research Fellowship (JRF) through entrance test. Around 140 JRF are available in veterinary and animal science subjects.

Students who opt to join universities or institutions other than those from where they have obtained their bachelor's degree are awarded Junior Research Fellowships based upon merit. The value of each Fellowship at present is **Rs. 5000/-** per month for graduates in Veterinary Science. In addition, a contingent grant of **Rs.6000/-** per annum is also given.

Qualification requirement to take up ICAR entrance test is a Bachelor's degree in the concerned subject obtaining at least 60% marks or Overall Grade Point Average (OGPA) equivalent to 60% marks for general category and 50% marks or OGPA equivalent to 50% of marks for SC/ST category.

#### **ELIGIBILITY REQUIREMENTS**

For admission in M.V. Sc. Candidates must have completed B.V. Sc. & A.H. with internship before the date of registration in the Universities. For admission at I.V.R.I, prescribed qualification is B.V. Sc. & A.H. except in bio-statistics.

#### RESERVATION

**Fifteen percent (15%)** of total seats are reserved for Scheduled Caste and **Seven & Half percent (7%%)** for Scheduled Tribe candidates. The reservation stated above is interchangeable i.e if sufficient number of candidates are not available to fill up the seats reserved for S.T. candidates, these can be filled up from amongst the suitable S.C. candidates and vice versa. Wherever, the number of seats are less than 3, reservation is be made on the basis of roaster system made.

For further details regarding Discipline/subject-wise total number of seats, number of Junior Research Fellowships for admission to Master's Degree Programme in Veterinary Science and Animal Science ANNEXURE - 3 may be referred.

#### **ADMISSION TO THE REMAINING 75% OF SEATS**

For rest of the 75% seats, admissions in Veterinary Colleges are done by corresponding universities/colleges as per their prescribed guidelines. Every year admission notification is made by the University. Application form and detailed information bulletins are available from the office of Registrar of respective State Agricultural/Veterinary University. The Communication address of the Universities is provided in **Annexure - 5.** 

#### C. POST-GRADUATE SCHEME

## INDIAN VETERINARY RESEARCH INSTITUTE, IZATNAGAR - 243 122, U.P.

The Indian Veterinary Research Institute (IVRI) which made beginning in 1889 has come a long way through its glorious past and has completed 107 years of dedicated service in Veterinary & Animal Sciences in research, teaching and transfers of technology. In recognition of long and sustained contributions in the field of research & education, the Institute was conferred the status of the Deemed University in 1983 (Under the UGC Act, 1956) and the first academic session commenced in January, 1985. The Institute has well equipped laboratories, animal sheds and other infra structural facilities for carrying our post-graduate research of high order. The Institute Library, National Library of Veterinary Science (NLVS), subscribes to a large number of books and foreign journals/periodicals which serve requirements for research and training organisations.

For further details regarding Discipline/subject-wise number of seats in M.V.Sc **ANNEXURE** - **3.** may be referred.

Indian Veterinary Research Institute(Deemed University) conducts a competitive written examination on all India basis for admission to the Ph.D programme. Details of this programme:

Examination centers: (1) Izatnagar(U.P) (2) Bangalore (Karnataka) (3) Kolkata(W.B)

#### **Disciplines:**

- 1. Animal Biochemistry
- 2. Animal Biotechnology
- 3. Animal Genetics & Breeding
- 4. Animal Nutrition
- 5. Animal Physiology
- 6. Avian Diseases
- 7. Livestock Production & Management.
- 8. Livestock Products Technology.
- 9. Poultry Science.
- 10. Veterinary Bacteriology.

- 11. Veterinary Extension Education.
- 12. Veterinary Immunology
- 13. Veterinary Gynecology & Obstetrics.
- 14. Veterinary Parasitology.
- 15. Veterinary Pathology.
- 16. Veterinary Pharmacology
- 17. Veterinary Medicine.
- 18. Veterinary Public health.
- 19. Veterinary Surgery.
- 20. Veterinary Virology.

#### **Eligibility:**

1) At least 60% marks in aggregate or OGPA 7.00/10.00 or equivalent, in case of S.C/S.T 55% marks or OGPA 6.45/10.00 or equivalent in the degree of Master of Veterinary Science in concerned discipline.

The candidates who have appeared at the Master's degree final examination are also eligible to apply provisionally for admission but they will have to submit documentary evidence of their eligibility at the time of interview.

2) A good knowledge of English language.

#### Age:

Minimum age limit 21 years as on 31<sup>st</sup> of the August of the year of admission.

#### **Reservation:**

Fifteen percent (15%) and seven and half percent (7 1/2%) seats are reserved for S.C/S.T candidates respectively.

#### **Scholarship:**

There is a provision of payment of IVRI Scholarship to the selected candidates for Ph.D. degree programme @ Rs 4,400/- P.M for three years which is extendable for a period of six months more.

#### **Procedure to apply:**

Information bulletin along with application form can be had personally from the University office of the institute on cash payment of Rs 200/- or through post by sending requisition to the Assistant Administrative Officer (Academic), I.V.R.I, Izatnagar-243122 (U.P.) along with a crossed bank draft of Rs 250/- drawn in favour of I.C.A.R. Unit IVRI, Izatnagar payable at State Bank of India.

#### III. OTHER RELEVANT FIELDS

Veterinary graduates can also opt for the following fields which are in high demand:

- 1) Dairy Science/Technology, 2) Poultry Science and
- 3) Bio-Technology.

#### 1) DAIRY SCIENCE/TECHNOLOGY

Dairy Technology deals with methods of handling milk from its production and to its consumption which includes its processing, packaging, storage, transport and physical distribution among the consumers. Based on the sciences of biochemistry, bacteriology, and nutrition, Dairy Technology employs the principles of engineering.

Dairy Technologists handle the procurements, processing and marketing of milk and its products. The Dairy Farming in this country has grown rapidly, as the demand for milk & its products keeps on increasing which creates openings in both public & private sectors. Though much of work in this sector is handled by cooperatives & milk federations, however, there are many openings for trained professionals within organizations for handling the procurements of milk, its processing & packaging; and in areas like quality control. Besides, in the private sector there are enterprises handling the manufacturing process of milk and marketing of its products like cheese, butter, ice-cream, chocolates, milk foods, baby foods & so on which offers employment to Dairy Technologists.

B. Tech. in Dairy Technology or B.Sc. in D.T. can be pursued after having studied +2 with physics, chemistry, Mathematics and English. Admission to these courses is made through an All India Entrance Examination conducted by ICAR. The study of Dairy Technology incorporates subjects dealing with the dairy engineering as applied to production process, dairy chemistry which deals with the composition of the product, dairy bacteriology dealing with research and bio-technological applications & quality control with testing procedures. The course includes inputs into management of dairy plants and processing industries including financial management.

Master's degree course in dairy science and dairy technology are offered by various institutions of Dairy Science & Technology, some agricultural colleges, college of veterinary science and animal husbandry, National Dairy Research Institute, Karnal also offers graduate, master's and doctorate courses in various discipline of Dairy Husbandry Technologies.

#### . M.Sc. Dairying: Courses offered at NDRI, Karnal, Haryana.

SI.	Disciplines	Eligibility		
No.				
1.	Animal Genetics	B.Sc. (D), (D.H.), B.Sc. (Animal Science), B.V.Sc,		
	Breeding	B.Sc.(Agri. With Animal Science as elective)		
2.	Livestock Production &	B.Sc. (D), (D.H.), B.V.Sc, B. Sc. Animal Science,		
	Management	B.Sc. Agri. With Animal Sciences as elective		
3	Animal Nutrition	B.Sc. Dairying (D.H.), B.V.Sc., B. Sc. Animal Science,		
		B.Sc. (Physiology), Bio-chemistry, Chemistry)		
4	Animal Physiology	B.Sc. Dairy (D.H.), B.V.Sc., B.Sc. (Ani. Sc.), B.Sc.		
		(Physiology/Biology/Zoology/Biochemistry/Chemistry)		
5	Animal Biochemistry	B.Sc. Dairying, B.Sc. (D)(D.T./D/H), B.V.Sc., B.Sc.		
		(Hons.), Bio-chemistry, B.Sc. PCM, B.Sc. CBZ.		
6	Dairy Economics	B.Sc. Dairying, B.Sc. (D)(D.T./D.H.), B.Sc. (Agri.),		
		B.V.Sc.		
7	Dairy Extension	B.Sc. Dairying, B.Sc. D.(D.T./D.GH.), B.Sc. (Home		
		Sc.), B.Sc. (Agri.), B.V. Sc.		

Candidates who have obtained at least 55% marks in aggregate or equivalent Grade Point Average (GPA) in Bachelor's Degree examinations from a University recognized by Kurukshetra University are only eligible to appear in the Entrance Examination.

#### Courses offered at Bangalore, NDRI

#### P.G. Diploma in Quality Control in Dairy Processing

Eligibility: Bachelor's degree in (i) Dairying (ii) Animal Sciences/Veterinary Science.

Candidates who have obtained at least 50% marks in aggregate or equivalent GPA in the Bachelor's degree examinations are only eligible to appear in the Entrance Examination.

#### 2) Poultry Science

Poultry Science can be taken as specialization in M.V. Sc. course. The Indian Poultry industry, with over 100,000 poultry farmers and 30 billion annual egg production, ranks fifth among the world largest egg-producing countries with an annual growth rate of 17 per cent. A number of factors have contributed to the increasing popularity of poultry forming as an occupation in this country. The first is the huge and growing demand for a low-priced source of protein-rich nutrient, provided by eggs and chicken. The minimum space requirement and low maintenance cost is another factor responsible for increasing its popularity. Besides this, chickens adapt easily to almost any conditions, and this profession gives substantial profits.

There are following three types of poultry farms, each catering to a different market segment.

- 1) Breeding Farms, 2) Broiler Farms, 3) Layer Farms.
- 1) Breeding Farms: They hatch and raise poultry for sale to other farmers.
- 2) <u>Broiler Forms</u>: They breed or buy chicks for their marketing. Day-old chicks are procured and kept for six weeks, until they are to be marketed. In broiler farming, the initial investment required is lower but returns are, however, quicker. However, the job of looking after tiny chicks is extremely laborious.
- 3) <u>Layer Forms</u>: A day-old chicks of light breed are raised for five or six months, after which they start laying. They are kept for their eggs for a year, after which they are culled. Although the initial investment is higher than in broiler farming, and the returns are slower, however, less work is involved in layer Farming. The eight weeks' breeding period is the most difficult time in this Farming.

Poultry Science is one of the subjects of the study in the B.V.Sc. & A.H. courses. Central Poultry breeding farms at <u>Mumbai</u>, <u>Bhubaneshwar</u>, <u>Hessarghatta</u> and <u>Chandigarh</u> are engaged in scientific poultry breeding programmes developed for high egg producing hybrid and fast growing broiler strains and also supply parent chick stocks. It is also offered at the master's level (M.V. Sc.) in almost all Veterinary Colleges and Veterinary Universities. Apart from these IVRI offers Master's & Doctoral programme in Poultry Science and Poultry disease.

#### 3) BIO-TECHNOLOGY

B.V. Sc. passed Students, if desire can also appear for Bio-technology entrance examination for advancing their future in this recently emerged branch. As an interdisciplinary subject 'the biotechnology', encompasses diverse areas of study be it molecular biology, tissue culture. Agricultural Engineering, fisheries, genetics medicine.

Some Universities have established separate school of bio-technology e.g. Institute of Micro-biology & Bio-technology at the <u>Barkatulh University (Bhopal)</u>, Centre for Bio-technology, Anna University (Chennai), Centre for Bio-technology, Punjab University (Chandigarh) etc. Strong base of animal biotechnology is available with Indian Veterinary Research Institute (IVRI), National Dairy Research Institute(NDRI), Chowdhury Charan Singh Haryana Agriculture University (CCSHAU), Tamil Nadu Agriculture University (TNAU), Tamil Nadu University of Veterinary & Animal Science (TANHUVAS), Gobind Ballab Pant University of Agriculture & Technology (GBPUAT), University of Agriculture Sc., Bangalore {UAS-(B)} and university of Agriculture Sc., Dharwad,{UAS(D)}, Acharya n.G. Rnga Agriculture University (ANGRAU). Most of the other State Agricultural Universities are also striving to create good facilities for teaching and research in biotechnology.

#### COMBINED ENTRANCE EXAMINATION

On behalf of participating universities, the Jawaharlal Nehru University holds the Combined Biotechnology Entrance Examination for admission to:

1)M.Sc (Biotechnology),

At present twenty six universities (details at Annexure -VIII) have received DBT (Department of biotechnology under Ministry of Science & Technology) assistance, participated in a Combined Entrance Test (CET) conducted by JNU held at 42 Centres in India for admission to the above said courses. The name of the courses, eligibility & other information have been summarized in the following Table:

#### TABLE-I

#### Table showing the name of the Courses. Eligibility. Duration

CT	NI C.I. C	FI: 11.11.4	D .:	D 1
SI.	Name of the Course	Eligibility	Duration	Remarks
No.			of the	
			course	
1.		Bachelor's degree under		Candidates selected
		10+2+3 pattern of Education in		for admission to
		Veterinary with at least 55%		those of the
	JNU	marks from a recognized University. All the SC/ST &		participating universities which
		PH candidates who have		are supported by
		passed the qualifying		the Department of
		examinations are eligible.		Bio-technology
				(Govt. of India),
				are generally
				eligible for
				scholarship.
				Reservation: 15%,
				7 ½ % and 3 % of
				seats are reserved
				for SC/ST and
				Handicapped
				persons respectively.
2.	M.Sc. Agri./	Bachelor's degree under		Birsa Agricultural
∠.	Veterinary/	10+2+4/5 pattern of education		University, Ranchi.
	Forestry (Bio-	in veterinary sciences with		Omversity, Kancin.
	Torestry (Dio-	in veterinary sciences with		

	technology)	At least 55% Marks from a recognize University. All the SC/ST & PH candidates who have passed the qualifying		
3.	Master degree of Bio-technology	examination are eligible.  MBBS, BVSC(Hons.), B.Sc.(Hons.), Zoology, Botany, Life Sc., Genetics with 60% marks	2 years	This programme is being offered by All India Institute of Medical Sciences, New Delhi.
4.	M.Sc. (Bio-Technology_ through Joint Entrance Examination of University of Rajastan, JAIPUR	Bachelor's degree under 10+2+3 Scheme with Veterinary Science, Chemistry, Botany, Zoology with minimum 55% marks (60% in case of candidates belonging to State other than Rajasthan and 50% in case of SC/ST/OBC Candidates of Rajasthan State).	2 years	Joint Entrance Examination, University of Rajasthan, Jaipur. The Major institutes in Rajasthan offering M.Sc. Bio- technology are: (i) University of Rajasthan, Jaipur, (ii) M.L. Sukhadia University, Udaipur, (iii) Mahatma Gandhi Institute of Applied Science, Tonk Road, Japur, (iv) Mahatma Jyoti Rao Phode P.G. Mahila Mahavidyalaya, Jaipur (v) India International College for Girls, Jaipur, and (vi) Seedling Academy of Design Technology & Management, Jaipur.
5.	M.V. Sc. Biotechnology Progrmme	Bachelor's degree under 10+2+4/5 pattern of Education in Veterinary Sciences with atleast 55% Marks from a recognized University. All the SC/ST & P.H. candidates who have passed the qualifying examination are eligible.		This programme is being offered at G.B. Pant University & Agriculture and Technology, Pant Nagar.

Admission to Master's degree programme in some of the SAUs including National Institute (IVRI, NDRI) are made through Combined ICAR Entrance Test.

#### **BIO-INFORMATICS**

Bio-informatics describes any use of computers to handle biological information. It is the study of biological information as it passes from its storage, site in the genome to the various gene products in the Cell. Bio-informatics as a field of study is becoming increasingly important due to the interest of the Pharmaceutical Industry in genome sequencing projects, which comprise a key segment of the discipline. Bio-informatics emerged as a multidisciplinary subject that encompasses developments in information and computer technology as applied to bio-technology & biological sciences. Bio-informatics uses computer software tools for data base creation, data management, data warehousing, data mining & global communication network. Functional genomics, bio-molecular structure, protein analysis, cell metabolism, bio-diversity, down stream processing in Chemical Engineering, drug design, vaccine design are some of the areas in which bio-informatics is an integral component.

#### <u>INSTITUTES OFFERING BIO - INFORMATIC COURSES & THEIR DETAILS</u> MENTIONED BELOW:

#### TABLE - II

	T			1	T
SI.	Name of	Field of the	Eligibility	Duration	Name of
No.	the Course	Course		of the	the
				course	Institution
					where the
					course is
					available.
1.	Advanced	Bio-	Master's degree in any Branch	One year	Bio-
	Diploma in	informatics	of the Sc. faculty M.V. Sc,	(two	informatics
	Bio-		M.Sc. (Agri.), M.Pham., M.D.,	Semesters)	Centre
	informatics		M.E.,. M.C.A.,. B.E., B.Tech.,		(DIC),
	(20 Seats)		or MBBS with 1st Class (at		University
			least 60% marks) or a grade		ofPune,
			(minimum Cumulative Grade		Pune-
			Point Average (CGPA) of 6.0		411007
			in the 0.10 scale) from any		
			recognized University. For		

2.	M.Sc,. in Bio- informatics (20 seats)	Bio-informatics	Reserved Category students from Maharashtra the requirement is relaxed to II Class (at least 55% marks) or B.Grade (Minimum CGPA of 5.5)  Bachelor's degree in Sc, Agri., Computer Sc./Engg., Medicine, Pharmacy & Veterinary Science with a first class (at least 60% marks or a Grade (Minimum CGPA of 6. in the 0.10 scale)	2 years	Bio- informatics Centre (DIC), University ofPune, Pune- 411007
3.	Advanced (P.G.) Diploma in Bio-informatics	Bio- Informatics	M.Sc. in any branch of Biological Sciences such as Bio-chemistry, Bio-physics, Microbiology, Molecular, Biology, Bio-technology, Life Science, Botany, Zoology, MBBS (with at least 55% marks or equivalent grade) & Maths up to 10 <sup>th</sup> Class)	One year	Jawaharlal Nehru University, New Delhi- 110067
4.	Advanced Diploma in Bio- informatics	Bio- Informatics	First class M.Sc. degree in Physical or Mathematical of Life Science or Computer Science) or M.Tech. or MBBS degree of a recognized Indian or Foreign University.	1 year	Bio- informatic Centre, School of Bio- technology, Madurai Kamaraj University, Madurai- 625021.
5.	Post- Graduate Diploma in Bio- informatics.	Bio- informatics	B.Sc./BE/B.Tech./M.Sc./ MBBS/MD/MCA/M.Pharm/ BDS/BPT/B.Pharm./B. V. Sc.	6 months	SISI, Govt. of India, Ministry of SSI, Chennai, 65/1, GST Road, Guindy.

## IV. INSTITUTE OF RURAL MANAGEMENT, ANAND, GUJARAT

The Institute of Rural Management, Anand (IRMA) was established at Anand in the Kaira District Gujarat, India, with the active support of Govt. of India.

#### The Programme in Rural marketing:

The Institute offers a two-year residential Post-graduate programme in Rural Management. The principle aim of this programme is the preparation of out-standing young men & women for careers involving management responsibilities in rural producer's organisations. It, therefore, seeks to equip them with these skills and abilities necessary for efficiently managing rural enterprises and allied organisations.

#### **Design of the Programme Rural Management (PRM):**

The course content of the PRM, reflects at both the conceptual and applied levels - a strong rural emphasis. The PRM is composed of 3 district and mutually supportive segments, covering a total period of 85 weeks. These are class room segment, the field work segment and management traineeship segment.

#### **Eligibility:**

The minimum eligibility requirement for PRM is a Bachelor's degree in Animal Husbandry, Vet. Science, Engineering, technology and the natural & social science with a 50% marks in the aggregate & 45% for SC/ST candidates as well as 55% marks (45% for SC/ST) overall in the School terminal examination.

#### **Selection:**

The selection procedure involving an objective written test assessing general comprehension and quantitative ability. The test followed by the Interviewing of short-listed candidates for managerial potential, communication skills & suitability for the institute's programme.

#### **Placement:**

The Institute placement activity is limited to the designated organisation deal in dairy, oil seeds, fisheries, fruits & vegetables, rural activity in areas such as Jute & Cotton. In addition to these commodity specific areas several rural health & voluntary rural development organisations & the National Bank for Agriculture & Rural Development have also been designated.

**NOTE:** For further details & changes, if any, please contact

The Director,
Institute of Rural Management,
P.O.BoxNo.-60, Anand-388
001 (Gujarat)

### V. NATIONAL INSTITUTE OF AGRICULTURAL EXTENSION MANAGEMENT

(An Organisation of Ministry of Agriculture, Govt. of India) Rajindra Nagar, Hyderabad -500 030, Andhra Pradesh, India.

Courses: Post-Graduate programme in Agricultural Business Management

The programme being first of its kind has attracted the attention of reputed national & multinational companies to seek out students enabling 100% placements since inception.

**Duration:** 2 years

**Eligibility:** 

Graduates in Agriculture & allied disciplines & Veterinary Science with at least  $2^{nd}$  division or equivalent marks are eligible to seek admission in the courses. Candidates appearing for the final year examinations also can apply. The selection is made on the basis of the Entrance Examination.

#### **Reservation:**

The reservation of SC/ST/physically handicapped/Disabled candidates is applicable as per the Govt. of India rules, subject to meeting the other eligibility criteria for admission.

#### VI. ALL INDIA INSTITUTE OF HYGIENE & PUBLIC HEALTH

110, CHITTARANJAN AVENUES, KOLKATA -700 073

**Course:** Master of Veterinary Public Health (MVPH)

**Duration:** Two academic years.

**Eligibility:** 

asity in who are some year experience one year experience of the state B.V. Sc. & A.H. Degree of the University of Calcutta or any University recognized by the University of Calcutta. Preference will be given to those candidates who are (i) deputed by Central/State Govt. of other recognized bodies or having at least one year experience in

#### VII. INDIAN COUNCIL OF MEDICAL RESEARCH RAMALINGASWAMIBHAWAN, ANSARINAGAR P.B.-4911, NEW DELHI- 110 029

#### **Test for ICMR Junior Research Fellowship**

ICMR in collaboration with PGIMER, Chandigarh will hold national level examination for the award of Junior Research Fellowship (JRF) for Indian national candidates.

A total of 100 Fellowships would be awarded, eighty fellowships would be awarded in Life Science Stream (like microbiology, veterinary science,. Bio-technology , physiology, molecules biology etc.)

#### Eligibility:

M.Sc./M.A or equivalent degree with minimum 55% marks for General/OBC candidates & 50% for the SC/ST & P.H. candidates in the subjects mentioned above.

#### Age limit:

The upper age limit for admission to the eligibility test in 28 years (relaxable upto 5 years upto 5 years in case of candidates belonging to SC/ST/PH/female candidates and 3 years in the case of OBC).

### VIII. NATIONAL INSTITUTE OF IMMUNOLOGY (Nil) ARUNA ASAF ALIMARG, NEW DELHI - 110067

#### Admission to Ph.D. Programme in Biological & Allied Sciences

The Institute invites applications for admission to the Ph.D. in Biology and elated Science. Cutting -edge research at the Institute encompasses a wide spectrum of diversity ranging from physico chemical to Physiological approaches, and falling under four broad umbrella areas: 1) Immunity and infection, 2) Reproduction and Development, 3) Molecular Design and 4) Gene Regulation.

#### Minimum qualifications

- 1. M.Sc. in any branch of Science or M.Tech. or M.B.B.S. or M.V. Sc. or M. Pharm. Or equivalent qualification recognized by Jawaharlal Nehru University (JNU), New Delhi is needed.
- 2. First Division, or equivalent grade or at least 60% of aggregate scores in examinations from Senior Secondary Certificate (10+2) onwards are required.
- 3. Candidates appearing for the qualifying examination this year may also apply, candidature being provisional pending satisfactory fulfillment of the requirements above.
- 4. Reservations are as per statutory norms.

#### **Selection Procedure**

- 1. Candidates fulfilling minimum requirements will be invited for a written qualifying test at the Nil, New Delhi, at their own expense. The written test is aimed at evaluating abilities to comprehend, analyse and reason.
- 2. Candidates short-listed from the results of the written test will be immediately informed and invited for an interview at Nil, New Delhi.
- 3. Candidates selected after the interview will be enrolled for the Ph.D. Programme of Nil in academic affiliation with JNU, New Delhi.

4. Candidates with fellowship stipend awarded through CSIR-UGC NET/ICMR/ICAR etc. are expected to avail the same. The Institute provides an equivalent fellowship stipend to those who are yet to qualify.

#### Ph.D. Programme

- 1. Shared hostel accommodation will be available on request.
- ater successing the particular succession of 2. The selection of guide for thesis work will only be made after successful

## IX. NATIONAL INSTITUTE OF AGRICULTURAL MARKETING

(AN ORGANISATION OF MINISTRY OF AGRICULTURE, GOVT. OF INDIA) NEAR SANGANER, KOTA ROAD, JAIPUR

Course: Post-Graduate Programme in Agriculture- Business Management (PGPABM)
@ NIAM

NIAM the apex institution for Agriculture Marketing in India invites you to join Post-Graduate Programme in Agriculture Business management (PGPABM). The programme has attracted the attention of reputed national & multinational companies to seek out students enabling 100% placements. The dynamic, innovative programme includes the latest trends and changes, rigorous assignments & project work in the state of the art environment providing a unique learning experience.

#### **Eligibility**

You are eligible to apply if you are a graduate in Agricultural & allied disciplines and veterinary sciences from an Agricultural University institute recognized by ICAP/UGC with at least second class Marks. You can apply even if you are appearing for final year examinations provided you meet the eligibility criteria.

#### **Examination:**

Computer based objective test for selection at one or more Centres will be conducted. **Reservation:** 

The reservation for SC/ST/Physically Handicapped/Disabled candidates is applicable as per the Govt. of India rules, subject to meeting the other eligibility criteria for admission. For further details write to the Principal Coordination (PGPABM), National Institute of Agriculture Extension Management, Rajendernagar, Hyderabad- 500 030 (A.P.)

#### X. INSTITUTE OF AGRI BUSINESS MANAGEMENT RAJASTAN AGRICULTURAL UNIVERSITY BIKANER

Course: M.B.A. (Agri. Business)

This institute established with the support of the World Bank. The institute of Agri Business Management offers a **2 years M.B.A.(Agri Business) programme** with specialization in input supply Industry, Food Industry, Horticulture Industry and Live Stock Industry.

#### **INDUSTRIAL INTERFACE:**

Some of the companies and organisations associated with the institute in the form of visiting faculty, projects and placement are Ankur Seeds, CEBECO, Chambal Fertilizers and chemicals, Dabur India, Dhanuka Pesticides, GSFC,IFFCO,Indo Bloom, Indo American Hybrid Seeds, International Panacea, KRIBHCO, Milkfed, Nagarjuna Fertilizers, Namdhari Seeds, Nestle India, Nunhems, Prescient Technologies, Proagro, RCF, RCDF, RNZ, Seminis Bioseeds, Sun Blossoms, Texax Organics, Tokita seeds & Zuari.

#### Eligibility

Indian nationals, below 30 years of age, having Bachelor's and/or Master's degree in Agriculture or allied disciplines (Veterinary Science, Agril. Engineering, Dairy Science, Dairy Technology, Fisheries, Food Science, etc.) from any Agricultural University or Institution recognized by ICAR with a minimum of 60% marks (55% for SC/ST) are eligible to apply. Candidates appearing at the final year examination and expecting to complete degree requirement may also apply.

#### Selection Procedure

Selection will be on the basis of written entrance test (RAUMAT - 2003), group discussion and personal interview. The RAUMAT comprises questions on agricultural/rural awareness, English comprehension, problem solving, logical reasoning and data interpretation. Total number of seats is 30. out of which 5 seats are to be filled through

NRI/Industry sponsored candidates, meeting the prescribed eligibility criteria. Candidates sponsored by NRI/Industry are not required to take the written test. However, they will have to appear for group discussion and personal interview on the specified date(s). One seat is reserved for Kashmiri migrant and the seats for OBC, SC,ST, Physically Handicapped and girl candidates are reserved as per the reservation policy of the Government of Rajasthan, implemented by RAU. A maximum of 40 per cent of the total number of seats is available for candidates from other States/Union Territories.

#### **Test Centres**

**Bikaner, Jaipur and New Delhi.** Choice of centre shall be subject to availability of candidates.

## XL CAREER OPPORTUNITIES FOR VETERINARY GRADUATES

#### Main Areas of Work

1) Hospitals 8) Academics & Research 9) Insurance ., CA, 2) State government 3) Centralized Sectors ·m,,njT., o,, 10) Wild Life & Environment Bodies/Municipalities/ 4) Local 11) Poultry Farms **Panchayats** 12) Dairy Sector 5) Extension Officer 13) Animal Husbandry 6) Banking Sector 14) Self-employment 7) Pharmaceutical Companies

#### 1) Hospitals

Veterinary Surgeons attached to Veterinary hospitals in cities may also find themselves handling mainly domestic pets. But Government postings could also be in rural areas where responsibilities extend to cattle, sheep, goats, horses, poultry etc.

#### 2) State Government

- 1) Veterinary Hospitals/Primary Veterinary Centers.
- 2) Organised State farms for managing livestock farms.
- 3) Semen Banks/Sperm Stations-where quality bulls are kept.
- 4) Poultry Farms—for managing egg farms, hatcheries, chick rearing units.
- 5) Meat/Milk processing plants—for supervising of hygienic collection & distribution of milk
- 6) Polyclinics— where specialized service like surgery, special diagnostics, specialized treatment etc. is given.
- 7) Disease investigation centers—survey disease profile and investigate any occurrence of a major disease.

- 8) Biological products or vaccine institutions—prepare quality control & distribute vaccines & biological.
- 9) Disease eradication schemes/ check posts/ vaccination camps.
- 10) Public health labs-investigation of disease transmissible from animals to man and vise versa.

#### 3) Centralized Sectors

- a) Army (Remount Veterinary Corps) to train and look after Horses, dogs camel etc. in the forces.
- b) BSF/ Police to look after Horses, dogs, camels etc. in the forces.
- c) I.C. A.R. co-ordination and funding of animal based research
- d) Department of Animal Husbandry & Dairying, Ministry of Agriculture for administrative management & coordination of veterinary service.
- e) Quarantine units these are internal check posts preventing entry of exotic disease like mad cow disease or fowl influenza.
- f) Central Farms same as state farms & sperm stations; they also conduct training.

#### 4) Local Bodies/ Municipalities/ Panchayats

- a) Slaughter houses/cattle Pounds./Public health Laboratories.
- b) Zoos & wildlife centers
- c) Animal resource development under Panchayati Raj.

#### 5) Extension Officers

Veterinary doctors are required for extension programmes at the block level, i.e. they educate and encourage livestock farmers to build up the quality of their animals stock. They also advise on animal farm management and animal health problems.

At least one extension officer at every block level handles the control and eradication of any notifiable disease, disease monitoring and surveillance, supervision of animal health schemes, and other animal husbandry programmes.

#### 6) Banking Sector:

Veterinarians also find employment with Banking Sector as Agricultural Officer through competitive examination.

#### 7) Pharmaceutical Companies!

Veterinarians are employed in the R&D Wing of Pharmaceutical Companies where they handle the production of vaccines, or the development of animal feeds & fertilizers.

#### 8) Academics & Research

Veterinary Scientists can work in Research institutes or animal welfare societies. There are also openings as lecturers at Veterinary Colleges for those with a Ph.D. in Veterinary Science. Veterinarians can take up research work in the following areas:

- 1) Dealing with pharmaceutical products/biological products.
- 2) Live stock feed/fodder.
- 3) Prevention & control of animal diseases.
- 4) Immunization of animals.
- 5) Modern nutritional inputs on animal health
- 6) Animal Genetics, breeding
- 7) Animal pathology etc.

For list of various Research Institutes related to Animal Sciences in India refer Annexure 10.

#### 9) Insurance

Veterinarians also find employment with Insurance Companies too, for assignments like insuring farm animals, claiming settlements & other related matters.

#### 10) Wild Life and Environment

36 Veterinarians play an important role in

the captive breeding of wild animals, particularly those feared to be getting extinct. They are put under sedatives and caged, and later, bred in captivity to increase their number. This also helps in maintaining the ecological balance and in catering to the health of wild animals.

#### 11) Poultry forms

Veterinarians work in poultry farms to maintain the health of Poultry birds and to develop strains with high egg productivity, as well as poultry for table consumption 'There are also Central Poultry Breeding Farms, similar to the cattle farms, where my bird & fast-growing broiler and egg-producing strains of poultry was developed.

Central Poultry breeding farms at Mumbai, Bhubaneswar, Hessarghatta, Chandigarh are engaged in Scientific Poultry breeding programmes - Developed high egg producing hybrids and fast growing broiler strains and are supplying parent chicken stocks.

#### 12) Dairy

The spectacular growth of the dairy Industry in the last two decades had created various demands for indigenous production of dairy equipment, increased quality standards and production of varieties of milk products. This has resulted in the progressive development of dairy equipment manufacturing industry and technical consultancy organisations and have also given impetus to research & teaching. Such notable expansion of the dairy processing and related industries has opened up vast career opportunities for dairy technologists.

There are now more than 400 Dairy plants in the country making various types of milk products. They need good qualified & well trained personnel to run the plants efficiently. The growth of the dairy processing industry has also encouraged the indigenisation of dairy equipment. Presently, there are over 170 dairy equipment manufacturers.

The industry has two distinct kinds of job:

- 1. Equipment Design & Fabrication & Plant Design.
- 2. Project Execution.

Dairy Technologists can also undertake:

- (i) Consultancy work
- (ii) Teaching
- (iii) Research
- (iv) Own Enterprises such as Small-scale Milk Plants, Creamery, ice-creams units.

#### 13) Animal Husbandry

Veterinarians in the Animal Husbandry Departments of the State Governments/ Central Government deal with the prevention & control of diseases in Dairy & Poultry Farms run by the Government & also supervise periodic inoculation & vaccination of animals in the farms & markets and to implement various schemes for the welfare of farm animals.

#### 14) Self-employment

- 1) Private Practice.
- 2) Consultancy.
- 3) Partner or Asstt. to a Practitioner.
- 4) Entrepreneur in L.S. Farms, Poultry Farms etc.
- 5) Diagnostic labs (Pathology, Biochemistry, Microbiology)
- 6) X-ray, Ultra-sound facility.
- 7) Zoo Bird Sanctuary & Animal Sanctuary.

#### **Private Practice**

Veterinary doctors in Urban areas can set up private practice to deal mainly with small or domestic animals. This can be quite profitable, especially in big cities. Some veterinarians in private practice take on part-time assignments at Government veterinary hospitals in urban Centres.

The Veterinarians in private practice may decide to set up practice in a forming community or in an urban setting. In the latter case they would usually be treating pet animals while in rural setting their range of practice may extend to all animals, large ranches, farms & stud farms may employ full-time veterinarians who would be based on site. Zoological gardens, animal sanctuaries, bird sanctuaries also have veterinarians on their staff.

#### Consultancy

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#### **ANNEXURE-1**

# SUBJECTS TO BE STUDIED AT GRADUATE LEVEL

1.	Veterinary Anatomy & Histology	Study of the gross structure of animal body and the microscopic structure of tissues of normal animal.
2.	Veterinary Physiology	Study of normal behaviour, functions of various systems of animal body & methods to monitor them.
3.	Veterinary Biochemistry	Study of the chemical structure of tissues and body fluids and the mechanism of metabolism; molecular biology.
4.	Veterinary Pharmacology & Toxicology	Study of the action of various drugs, chemical and toxins on body and body functions.
5,	Veterinary Parasitology	Study of parasites that affects animals' health.
5, 6.	Veterinary Microbiology	Study of Bacteria, Virus, Fungus etc. that affects animals' health.
7.	Veterinary Pathology	Study abnormal form & function of animal body.
8.	Veterinary Public Health	Study of environment on animals; animal diseases that affect human health and vice versa; animal product hygiene.
9.	Animal Nutrition	Study of feeds; feeding of animals, feed Processing, feed analogies.
10.	Animal Breeding & Genetics including Biostatistics	Study of animal genetics breed conservation and systems of breeding of animals.
11.	Livestock Production & Management	Study of systems of management of animals including management of pets, laboratory animals & zoo animals.
12.	Livestock Product Technology	Study of the harvesting of animal product ensuring minimum loss, proper conservation and maximum loss, proper conservation and maximum safety.
13.	Animal Reproduction Gynecology & Obstetrics.	Study of Animal Reproduction, diseases and problems of reproductive organs; handling of abnormal birth.
14.	Veterinary Surgery & Radiology	Anesthetizing and operating animals. Use of X ray & ultrasound & other methods of diagnosis.
15.	Clinical Veterinary Medicine including Veterinary Ethics & Jurisprudence	Study of the diagnosis & treatment of non-surgical diseases. Study of Animal related laws & Ethics of professional service.
16.	Veterinary Epidemiology & Preventive Medicine	Teaches data & information generation on animals, animal health & disease. Prevention of problems based on information.

17.	Veterinary & Animal	Teaches sociology i.e. the community, their socio-
	<b>Husbandry Extension</b>	economic profile, life style and methods
	-	communication with them for assessing their
		needs & problems; Veterinary public relation.



#### **ANNEXURE-2**

### SPECIALISATIONS<sup>^</sup>.V. SC.)

#### POST GRADUATION

- 2) Animal Anatomy
- 3) Biochemistry
- 4) Animal Biochemistry
- 5) Animal Husbandry
- 6) Livestock Economics
- 7) Animal Husbandry and Veterinary Extension
- 8) Animal Reproduction, Obstratrics & Gynecology
- 9) Animal Genetics and Breeding
- 10) Dairy Sciences
- 11) Dairy Technology
- 12) Dairy Chemistry
- 13) Dairy Engineering
- 14) Dairy Microbiology
- 15) Food Hygiene
- 16) Feed and Fodder Technology
- 17) Microbiology
- 18) Meat Science and Technology
- 19) Nutrition
- 20) Pathology

- 21) Physiology
- 22)Parasitology
- 23) Poultry Science & Technology
- 24) Piggery
- 25) Pharmacology and Toxicology
- 26) Preventive Medicine
- 27) Surgery
- 28) Statistics, Bio-Statistics & Computer Application
- 29) Avaian Diseases
- 30) Epidemiologist & Preventive Medicine
- 31) Live Stock Production & Management
- 32) Live Stock Products Technology
- 33) Veterinary Virology
- 34) Veterinary Public Health
- 35) Veterinary Preventive Medicine
- 36) Veterinary Medicine

### **SUPER SPECIALISATIONS (Ph.D.)**

1)Animal breeding 2)Animal genetics AND BREEDING 3)Animal gynecology & obsterics 4)Animal nutrition 5)Animal physiology 6)Animal reproduction 7)Bio chemistry 8) Extension education 9)Live stock products technology 10)Poultry science II)Veterinary bacteriology 12) Veterinary immunology 13)Veterinary preventive medicine 14) Veterinary paracitology 15)Veterinary pathology 16)Veterinary pharmacology 17)Veterinary surgery 18)Veterinary virology 19) Veterinary clinical medicine.

#### APPENDIX - 3

# DISCIPLINE/SUBJECT-WISE, TOTAL NUMBER OF SEATS AND NUMBER OF JUNIOR RESEARCH FELLOWSHIPS FOR ADMISSION TO MASTER'S DEGREE PROGRAMME IN VETERINARY SCIENCE AND ANIMAL SCIENCETHROUGH ICAR'S COMBINED ENTRANCE TEST.

	I.C.A.RI., PUSA, NEW DELHI								IV.R.I., IZATNAGAR			
SL. No.	Subjects	No. of seats	No of JRF (Tentative)				Numb	er of S	eats			
		Tentative	Total	Gen	S.C.	ST.	Gen	S.C	S.T	TOTAL		
1	Veterinary Anatomy	20	6	4	1	1	-	-	-	-		
2	Vety.Obst.& Gyneoco logy	23	7	5	1	1	3	1		4		
3	Medicine (Clinical & Preventive)	26	7	5	1	1	~			~		
4	Vety. Parasitology	19	6	4	1	1	3	_	-	3		
5	Vety. Pathology including Avian Diseases & Wild Life	30	9	7	1	1						
6	Vety. Pharmacology & Toxicology	18		4	1	0	4	1		5		
7	Vety. Public Health	13	4	3	1	0	2	1		3		
8	Vety. Surgery	21	6	4	1	1	4	1	1	6		
9	Vety. Microbiology Bacteriology Virology, Immunology)	30	9	7	1	1						
10	Vety. Immunology	6	2	1	0	1	3	-	1	4		
11	Vety. Virology	4	2	1	0	1	3	-	1	4		
12	Epidemiology	5	2	2	0	0	1	1	-	2		
13	Vety. Medicine	-	-	-	-	-	3	-	1	4		
14	Vety. Extension Education	-	-	-	-	-	5	1	-	6		
5	Vety. Bacteriology	-	-	-	-	-	4	1	-	5		
8	Vety. Pathology	-	-	-	-	-	4	1	-	5		
·	II. ANIMAL SCIENCE		1	•	•		•	·I		•		
1	Animal Husbandry/ Dairy Science*	27	8	6	1	1	-	-	-	-		
2	Animal Genetics & Breeding	31	9	7	1	1	3	1	-	4		
3	Animal Nurtition/ Feed Technology	37	11	8	2	1	-	-	-	-		
4	Animal Physiology	28	8	6	1	1	3	-	1	4		
5	Livestock Production & Management	22	6	4	1	1	1	-	-	1		

isitus at white the crab

	Technology & Meat Science									
7	Poultry Science	16	5	3	1	1	4	1	-	5
8	Animal Husbandry/ Veterinary Extension Education	11	3	2	0	1				
9	Animal Nutrition	-	-	-	-	-	4	-	1	5
10	Avian Diseases	-	-	-	-	-	1	1	-	2
11	Biochemistry	-	-	-	-	-	4	-	1	5
12	Bio-statistics	-	-	-	-	-	3	-	-	3
13	Animal Bio-technology	-	-	-	-	-	7	2	1	10
14	Livestock Product Technology	-	-	-	-	-	3	1	-	4

N.B.: No. of seats provided are tentative. Every University has a right to change the number of seats of its own as per the facilities and manpower available.

### LIST OF DEANS OF VETERINARY COLLEGES IN INDIA

SRL NO	NAME & ADDRESS
1	The Dean, Faculty Of Veterinary Science, Khanapara Campus, Guwahati-781022. <b>Assam</b>
2	The Associate Dean,, College Of Veterinary Science, Assam Agricultural University, North Lakhimpur, P.O Azad, <b>Assam</b> 787001
3	The Principal, College Of Veterinary Science, Tirupati-517502 <b>Andhra Pradesh.</b>
4	The Dean, Faculty Of Veterinary Science, Administrative Office, Acharya N.G. Ranga University, Rajendra Nagar, Hyderabad-500030 <b>Andhra Pradesh</b>
5	The Principal N.T.RamaraoCollegeOf Veterinary Science, Krishna(District), Gannavaram-521101 Andhra Pradesh
6	The Dean Cum Principal Bihar Veterinary College, Patna-800014, <b>Bihar</b>
7	The Dean, Ranchi College of Veterinary Science & Animal Husbandry, Kanke, Ranchi-834007,  Jharkhand
8	The Dean, College Of Veterinary Science, CCSHAU, Hisar-125004. <b>Haryana</b>
9	The Principal, College Of Veterinary Science & Animal Husbandry, Gujarat Agricultural University, Anand Campus, Anand-388001, <b>Gujarat</b>
10	The Principal College Of Veterinary Science & Animal Husbandry, Gujarat Agricultural University, Sardar Krushi Nagar, <b>Gujarat</b> - 385506
11	The Dean, College Of Veterinary Science, C.S.K.H.P.K.V., Dist.Kangra, Palampur-176062, <b>Himachal Pradesh</b>
12	The Director of Instruction(Vety.), College of Veterinary Science, Hebbal, Bangalore-560024 Karanataka
13	The Director of Instruction(Vety.), College of Veterinary Science, Nandi Nagar, Post Box No. 6, Bidar 58501 Karanataka

14	The Dean, College Of Veterinary Animal Science, Kerala Agricultural University, Mannuthy, Trissur-680654 <b>Kerala</b>
15	The Special Officer, Special Office, College Of Veterinary & Animal Science, {Pookotte, Wayanad} Temporary Head Qtrs., Mannuthy, Trissur-680651 <b>Kerala</b>
16	The Dean, College Of Veterinary Science & Animal Science& Animal Husbandry, JNKW, South Civil Lines, Jabalpur 482001 <b>Madhya Pradesh</b>
17	The Dean, College Of Veterinary Science & Animal Husbandry, PO Rasalpur, Dist. Indore, Mhow 453446  Madhya Pradesh
18	The Dean, College Of Veterinary Science & Animal Husbandry, Post Box No. 6, Anjora, Durg 491001 Chhatisgarh
19	The Associate Dean, Nagpur Veterinary College, MAFSU, Seminary Hills, Nagapur 440006 Maharashtra
20	The Associate Dean & Principal, College of Veterinary and Animal Sciences, MAFSU,P.B.No.2301, DistLatur, Udgir-413517 Maharashtra
21	The Dean K.N.P.College of Veterinary Science, MAFSU, Post Shirwal, Taluka Khandala, Dist. Satara, <b>Maharashtra-</b> <b>412801</b>
22	The Associate Dean & Principlal, College Of Veterinary & Animal Science, Maharastra Agricultural and Fishery Sciences University, Parbhani, <b>Maharashtra-431401</b>
23	The Associate Dean, Bombay Veterinary College, Mafsu, Parel, (MAFS University), Mumbai-12, <b>Maharashtra</b>
24	The Dean, College Of Veterinary Science & Animal Husbandry, Orissa University Of Agriculture & Technology Bhubaneswar-751003  Orissa
25	The Dean, College Of Veterinary Science, Rajasthan Agricultural University, Bikaner 334001 Rajasthan

26	The Dean, College Of Veterinary Science, G.B. Pant
	University Of Agriculture & Technology, Pantnagar-
	263145. Uttaranchal

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27	The Dean, College of Veterinary Science & Animal Husbundry, Narendra Deva University of Agriculture & Technology, P.O. Kumar Ganj, Faizabad - 224229. Uttar Pradesh
28	The Associate Dean, Faculty of Veterinary Sciences & Animal Husbandry, SKUAST (J), R.S. PURA, Jammu 181102 <b>J&amp;K</b>
29	The Dean, Faculty of Veterinary Science & Animal Husbandry, SKUAST PO BoxNo. 135, G.P.O., Srinagar-190 001. <b>J&amp;K</b>
30	The Dean, College of Veterinary Science, Punjab Agricultural University, Ludhiana 141 004 Punjab
31	The Dean, Madras Veterinary College, Vapery, Chennai 600 007 <b>Tamil Nadu</b>
32	The Dean, Veterinary College & Research Institute, Nammakkal - 627 001 <b>Tamil</b> Nadu
33	The Dean, College of Veterinary Science, U.P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya evam Go-Anusandhan Sansthan, Mathura-281 002 Uttar Pradesh
34	The Dean, Faculty of Veterinary & Animal Science, West Bengal University of Animal & Fishery Science, 37 - Kshudiram Bose Sarani, Belgachia,, Kolkata - 700 037 <b>West Bengal</b>
35	The Dean, Rajiv Gandhi College of Veterinary & Animal Science, Muthirapalayam B.P.O. Karumbapet 605009 <b>Pondicherry</b>
36	The Dean, College of Veterinary Science & Animal Husbandry, Central Agricultural University, Aizawl Campus, Selesih, Aizawl -796 007 <b>Mizoram</b>
NATIO	ONAL INSTITUTE OFFERING P.G. COURSES IN VETERINARY & ANIMAL
SCIE	NCES.
37	The Dean Post-Graduate Studies and Jt. Director Academics, Indian Veterinary Research Institute (IVRI), Izatnagar, Bareilly- 243 122 U.P.
38	The Joint Director Academics, National Dairy Research Institute (NDRI), Karnal - 132 001, Haryana

## LIST OF REGISTRARS OF UNIVERSITIES

SI. No.	NAME AND ADDRESS	
1.	The Registrar, Acharya N.G. Ranga Agricultural University, Rajendra Nagar HYDERABAD- 500030.(ANDHRA PRADESH)	
2.	The Registrar, Assam Agricultural University Jorhat 785013,ASSAM.	
3.	The Registrar, Birsa Agricultural University, Kanke,Ranchi- 834006,JHARKHAND.	
4.	The Registrar, Central Agricultural University, Post Box - 23, Iroisemba, Imphal, MANIPUR-795004.	
5.	The Registrar, Chander Shekhar Azad University of Agricultural & Technology, KANPUR- 741 252	
6.	The Registrar, Chaudhary Charan Singh Haryana Agricultural University, Hisar-125004, HARYANA	
7.	The Registrar, Sher-e-Kashmir University of Agricultural Science & Technology, Kashmir, Faculty of Veterinary Sciences & Animal Husbandry, Shuhama(Alusteng) Kashmir Shalimar Campus, Srinagar- 181 121 JAMMU & KASHMIR	
8.	The Registrar, G.B. Pant University of Agricultural & Technology, Pant Nagar 263145, Distt.Udham Singh Nagar, UTTRANCHAL.	
9.	The Registrar, Gujarat Agricultural University, Sardar Krushinagar, Dantiwada, Distt. Banaskantha-3 85506 GUJARAT	
10.	The Registrar, Choudhary Sarwan Kumar Himachal Pradesh Krishi Viswavidyalaya, Palampur 176002 HIMALCHAL PRADESH	

11.	The Registrar, Indira Gandhi Krishi
	Viswavidyalaya, Krishi Nagar, Raipur-492012
	CHATTISGARH.



12.	The Registrar, Indian Veterinary Research Institute, Izatnagar - 243 122 U.P
13.	The Registrar, Jawahar Lai Nehru Krishi Viswavidyalaya, Jabalpur, Jabalpur-482004 MADHYAPRADESH.
14.	The Registrar, Kerala Agricultural University, Main campus, Vellanikkara, Trissur- 680654, KERALA
15.	The Registrar, Maharashtra Animal & Fishery Science University, Seminary Hills, Nagpur-440006. MAHARASTRA
16.	The Registrar, Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan,Mathura- 281 001(U.P.)
17.	The Registrar, Narendra Deva University of Agricultural & Technology, Narendra Nagar, P.O., Kumarganj, Faizabad-224229 UTTAR PRADESH.
18.	The Registrar, Orissa University of Agricultural & Technology, Bhubaneswar-751003,ORISSA
19.	The Registrar, Pondicherryt University, Bharat Ratna Dr.B.R.Ambedkar Adminstrative Building, R. Venkatraman Nagar, Kalapet-605014 PONDICHERRY
20.	The Registrar, Punjab Agricultrual University, Ludhiana-141004, PUNJAB.
21.	The Registrar, Rajasthan Agricultural University, Bikaner-3 34006, RAJASTHAN.
22.	The Registrar, Rajendra Agricultural University, Pusa, Samastipur-848125, BIHAR.

23.	The Registrar, Sher-e-Kashmir University of
	Agricultural Science & Technology, Head
	Office, Railway Road, Jammu Tawi-180004,
	JAMMU & KASHMIR



	Sciences & Animal Husbandry, Madhavaram Milk Colony, Madrass-600007, TAMILNADU.
25.	The Registrar, University of Agricultural Sciences, GKVK Campus,Post Bag No.2477, Bangalore-560065 KARNATAKA.
26.	The Registrar, University of Agricultural Sciences, Krishi Nagar Dharwad-5 80005 KARNATAKA
27.	The Registrar, West Bengal University of Animal & Fishery Sciences,37, Kshudhiram Bose Sarani, Kolkata-700037 WEST BENGAL
28.	The Registrar, National Dairy Research Institute (NDRI), Karnal - 132 001 HARYANA

#### ADDRESSES OF STATE VETERINARY COUNCILS

The Veterinary Council of India is a statutory body of the Government of India framed under an Act of Parliament i.e. Indian Veterinary Council Act, 1984 (52 of 1984). This is an Act to regulate veterinary practice and veterinary education. The Act stands extended to all the States of India except Tamil Nadu & Jammu & Kashmir as on date. Only those who possess recognized veterinary qualification & registration can practice in the country.

#### 1. The Registrar,

A.P. Veterinary Council, V.B.R.I. Premises, Shantinagar, Hyderabad-500028

#### 2. The Registrar,

Arunachal Pradesh Veterinary Council Niranjuli, Arunachal Pradesh.

# 3. The Registrar, Assam Veterinary Council, Veterinary Complex, M.C. Road, Uzam Bazar, Guwahati-781003. Off. Ph. No. 0361-25440, 23291

4. The Registrar, Andaman & Nicobar Veterinary Council, Anadaman Nicobar Admn., Directorate of Animal Husbandry & Veterinary Science, P.B.No. 02, Port Blair-744102.

#### 5. The Registrar,

Bihar Veterinary Council, Institute of Animal Health and Production, Parishar, Patna-800014. (Bihar.)

#### 6. The Registrar,

Delhi Veterinary Council, Dairy Colony Veterinary Hospital, Vasant Kunj (Masoodpur) New Delhi-110070 Off. Phone No. 011-6882265/6138117

Fax: 6137117

#### 7. The Registrar,

Goa State Veterinary Council, D-2, Veterinary Hospital Complex, Tonca, Casanzalem, Goa Fax: 0832-217814

#### 8. The Registrar,

Haryana State Veterinary Council, SCF No. 20, Second Floor, Sector-15, Panchkula, Haryana. Off. Phone No. 0172-701528 Fax: 0172-704741

#### 9. The Registrar,

H.P. Veterinary Council, Pashudhan Bhawan, Shimla-171005, Himachal Pradesh, Off. Phone No. 0177-230794

#### 10. The Registrar,

Karnataka Veterinary Council C/o Addl. Director, Deptt. of Animal Husbandry & Veterinary Sciences, 5<sup>th</sup> Floor, Visweswaraich Mini Tower, Dr. Ambvedkar Veethi, Bangalore -560001. Off. Phone No. 080-2865952

#### 11. The Registrar,

Kerala State Veterinary Council, Peroorkada P.O., Thiruvananthapuram- Kerala -649005 Off. Phone No. 0471-470542/435246

#### 12. The Registrar,

Lakshdweep Veterinary Council, Deptt. of Animal Husbandry, Kavaratti, Lakshdweep.

#### 13. The Registrar,

M.P. Veterinary Council, State Veterinary Hospital Bhawan, Jail Road, Jahangnabad, Bhopal-462008 (M.P.)

#### 14. The Registrar,

Maharashtra State Veterinary Council Regional Joint Director of Animal Husbandry, Nagpur Region, Nagpur Complex, Nagpur (Maharashtra)

#### 15. The Registrar,

The Manipal State Veterinary Council, Sansenthong, Imphal, Manipur Off. Phone No. 0385-79501/223143

#### 16. The Registrar,

Methalaya State Veterinary Council, Shillong-793002

#### 17. The Registrar,

Nagaland State Veterinary Council, Deptt. of Animal Husbandry & Veterinary Services, Kohima-797001. (Off. Ph. No. 0389-27844)

#### 18. The Registrar,

Mizoram State Veterinary Council, C/o Director of Animal Husbandry & Veterinary Services, Mizoram Administration, Aizwal-796001, Mizoam

#### 19. The Registrar,

Orissa Veterinary Council, Orissa Biological Products Institute, Bhubaneswar-751003. Off. Phone No. 400068/400243

#### 20. The Registrar,

Pondicherry State Veterinary Council, Animal Husbandry Complex, Pondicherry-605001. Off. Phone No. 203135/203216

#### 21. The Registrar,

Punjab State Veterinary Council, KothiNo. 1520, Sector-33B, Chandigarh. Off. Phone No. 604793

#### 22. The Registrar,

Rajasthan Veterinary Council, Pashudhan Bhawan, Tonk Road, Jaipur-302015 (Rajasthan) Off. Phone No. 515671/574671

#### 23. The Registrar,

Sikkim Veterinary Council, Deptt. of Animal Husbandry & Veterinary Services, Krishi Bhawan, Tadong, Sikkim-737102.

#### 24. The Registrar,

U.P. State Veterinary Council, Deptt. of Animal Husbandry, Kokaran Nath Road, Badshabad, Lucknow-226007, (U.P.) Off. Phone NO. 5576218

#### 25. The Registrar,

West Bengal Veterinary Council, W.B. University of Animal & Fishery Sciences, 68 & 37, Kshudiram Bose Sarani, Kolkata-700037 (West Bengal)

#### 26. The Registrar,

Gujarat Veterinary Council, Krishi Bhawan, Sector 10A, Gandhinagar, Gujarat. Off. Phone No. 079-6579601/6579602

#### 27. The Registrar,

Tripura Veterinary Council, Astabal Complex, Agartala, Tripura.

# DAIRY SCIENCE & TECHNOLOGY COURSES STATE-WISE

SI. No.	State	University	College	Courses
1.	Andhra Pradesh	Acharya N.G. Ranga Agricultural University	College of Veterinary Sc, Hyderabad College of Veterinary Sc, Tirupati Dairy Science College, Triupati Institute of Dairy Technology	M.V.Sc. (DP/DT) M.V.Sc. (DT/DS) B.Sc.(D.T.) B.Sc.(D.T.)
2.	Bihar	Rajendra Agricultural University, Patna	Sanjay Gandhi Institute of Dairy Technology	B.Tech. (D.T.)
3.	Gujarat	Gujarat Agricultural University, Anand.	Bhailabhai & Bhikabhai Poly Technic College Seth M.C. College of Dairy Science	DIP (DE) B,.Tech. (DT) M.Sc.(D), Ph.D.
4.	Haryana	National Dairy Research Institute, Karnal	Dairy Science College	Diploma in Dairy Technology - B.Tech. (D.T.) M.Dairying, Ph.D.
5.	Karnataka	University of Agricultural Sciences, Bangalore	Dairy Science College National Dairy Research Institute, Southern Regional Centre, Bangalore	B.Tech. (DT) M.Sc. (DS) Ph.D. NDD, M. Dairying, Ph.D.
6.	Kerala	Kerala Agricutural University, Thrissur	College of Veterinary & Animal Sciences,	M.V.Sc.(DS), Ph.D.
7.	Madhya Pradesh	Indira Gandhi Krishi Vidyalaya, Raipur	College of Dairy Technology	B.Tech. (DT)

8.	Maharashtra	1 .Marathwada	1. College of Agricutlure	M.Sc.(Ag. In
		Krishi Vidyapeeth,	2. College of Veterinary	A.H. &D)
		Pasbhani	&A.S. College of D.T.	M.V.Sc.(DS)
		2. Dr. Punjabrao	_	B.Tech. (D.T.),
		Deshmukh Krishi		M.Sc(AH&D)

NSC.
B. Tech.
M. Sc(AH.

		Vidyapeeth, Warnd 3. Aarey, Mumbai 4.Konkan Krishi Vishwavidyalaya, Dapoli 5.Mahatma Rhule Krishi Vidyapeeth, Rahuri 6.Dr. Punjabrao Krishi Vidyapeeth, Akola	Dairy Science Institute, College of Agriculture Faculty of Agriculture Faculty of Agriculture	Indian Dairy Diploma (DT) MS (AH&DS) M.Sc.(Agriculture in D.S.) M.Sc.(Agriculture in AH & D)
9.	Punjab	Punjab Agricultural University, Ludhiana	Department of Food Science	Diploma in DT
10.	Rajasthan	Maharana Pratap University of Agriculture & Technology, Udaipur	Dairy Science College	B.Tech. (DT) M.Sc. (DH/DS) Ph.D.(DS)
11.	Tamil Nadu	T.N. Veterinary & Animal Science University, Chennai	Madras Veterinary College Gandhigram Rural Institute, Gandhigram	M.V.Sc. (DS) Ph.D. (DS) P.G. Diploma in Dairying

12.	Uttar Pradesh	1. Allahabad 2. Gobind Ballabhpant University of Agr. & Tech., Pantnagar 3. Chandra Sekhar Azad University of Agricultural & Technology, Kanpur 4. Govt. Polytechnic,	Allahabad Agricultural Institute, College of Agriculture	Indian Dairy Diploma (DH) Indian Dairy Dima (DT) M.Sc. (Ag. in DT) M.V.Sc.(DH) M.Sc. (Ag. in DT) Diploma in Dairy Engg.

		Etawah		
		5. Govind Ballabhpant University of Ag. & A.H.		M.V.Sc. (Dairy Husbandry)
		6. Izatnagar	Indian Veterinary Research Institute	M.V.Sc. (Livestock Product Technology)
		7. Banaras Hindu University, Varanasi	Institute of Agriculture	M.Sc. (AH&D) M.Sc. (DT)
		8. Kanpur University	-	M.Sc.(Ag. in AH &H)
		9. Agra University, Agra	R.B.S. College	M.Sc. (Ag. in AH &D)
		10. Varanasi	Uday Pratap College	M.Sc. (Ag. in AH &D)
13.	West Bengal	l.W.B. University of Animal & Fisheries Sciences, Mohanpur	Dairy Science College	B.Tech. (DT) M.Sc. (Dairy Bacteriology)
				M.Sc. (Dairy Chemistry)
		2.Kharagpur	LIT.	MTech. (Dairy & Food Engeering)
		3. Haringhata	State Institute of Dairying	Indian Dairy Diploma (DT)

# LIST OF VARIOUS PARTICIPATING UNIVERSITIES IN THE COMBINED BIO-TECHNOLOGY ENTRANCE EXAMINATION

Name of the State	Name of the University
Andhra Pradesh	University of Hyderabad, Hyderabad
Assam	Tezpur University, Tezpur
Delhi	Jawaharlal Nehru University, New Delhi
Gujarat	I.M.S. University of Baroda, Baroda
	2.Gujarat University, Ahmedabad
Goa	Goa University, Goa
Haryana	Guru Jambheshwar University, Hissar
Himachal Pradesh	Himachal Pradesh University, Shimla
J & K	University of Jammu, Jammu
Karnataka	1 .Gulbarga University, Gulbarga
	2.University of Mysore, Mysore
Kerala	Calicut University, Kerala
Madhya Pradesh	Devi AhilyaVishwavidyallaya, Indore
Maharashtra	University of Pune, Pune
Pondicherry	Pondicherry University, Pondicherry
Punjab	1 .Guru Nanak Dev University, Amritsar 2.Punjab
	University, Chandigarh 3.Punjabi University,
	Patiala 4. Thaper Institute of Engg. & Technology,
	Patiala
Tamil Nadu	Madurai University, Madurai
Uttar Pradesh	1.University of Allahabad, Allahabad
	2.Banaras Hindu University, Varanasi
	3.University of Lucknow, Lucknow
Uttaranchal	1.G.B. Pant University of Agriculture & Technology, Pant
	Nagar 2.Kumaun University, Nanital
West Bengal	University of North Bengal, Siliguri

# JOB-RELATED INFORMATION IN THE FIELD OF VETERINARY SCIENCE IN RESPECT TO DEPARTMENT OF ANIMAL HUSBANDRY & DAIRYING

SI. No.	Designation of post*	Essential Educational Qualifications
1.	Senior Technical Assistant (Livestock)	Degree in Animal Husbandry of Veterinary Science from a recognized University or equivalent.
2.	Senior Technical Assistant (Poultry)	P.G. training in Poultry Husbandry or 2 years experience in poultry production extension.
3.	Assistant Livestock Officer	(i) Degree in Animal Husbandry Or Veterinary Science from a recognized University, (ii) 3 years experience of Research/Livestock Development work.
4.	Assistant Poultry Development Officer	P.G. Training in Poultry Husbandry and 3 years experience of poultry production/extension/farming.
5.	Assistant Commissioner (Cattle Development)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in any branch of Animal Science related to production, (iii) 5 years experience in Cattle Development.
6.	Assistant Commissioner (Sheep)	(i) Degree in Veterinary Science Or Animal Husbandry, (ii) P.G. Degree in any branch of Animal Science related to production, (iii) 5 years experience in Sheep & Wool Work.
7.	Assistant Commissioner (Poultry)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in any branch of Poultry Science related to production, (iii) 5 years experience in the field of Poultry Development.
8.	Assistant Commissioner (Livestock Health Rinder pest/Animal Quarantine)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in any branch of Veterinary Science related to production, (iii) 5 years experience of disease control/ investigation.
9.	Assistant Commissioner (Equine Development) redesignated as AC (Livestock Production)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in any branch of Animal Science related to production, (iii) 5 years experience in Equine Development/Research Work or Planning Stud Farms.
10.	Assistant Commissioner (Piggery)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in any branch of Animal Science related to production, (iii) 5 years experience in Swine Husbandry/Pork Technology.

11.	Assistant Commissioner	(i) Degree in Veterinary Sc. Or Animal Husbandry,
	(Carcass Utilisation)	(ii) P.G. Degree in any branch of Animal Science related to production, (iii) 5 years experience in running/coordination of working of carcass utilization.
12.	Deputy Commissioner (Cattle Development/ Integrated Cattle Development Project)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in Animal Breeding, Genetics or Physiology related specifically to bovines of a recognized University or equivalent, (iii) 10 years experience in Cattle Development.
13.	Deputy Commissioner (Sheep)	(i) A recgonised Veterinary Degree qualification included in the first or second schedule of Indian Veterinary Council Act 1984. (ii) P.G. Degree in any branch of Vet. Sc./Animal Genetics and Breeding, (iii) 10 years experience in the field of Sheep/Goat Development.
14.	Deputy Commissioner (Poultry)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in any branch of Poultry Science related to production, (iii) 10 years experience in a supervisory capacity in poultry production work.
15.	Deputy Commissioner (Livestock Health)	(i) Degree in Veterinary Sc. of a recognized University or equivalent, (ii) Post-Graduate degree in any branch of Veterinary Sc. related to animal disease control from a recognized university or equivalent, (iii) 10 years experience in a supervisory capacity in animal disease control or investigation work.
16.	Joint Commissioner (Livestock Production)	(i) P.G. Degree in any branch of Animal Husbandry of recognized University or equivalent, (ii) 12 years experience of livestock developmental/ research work in a responsible capacity, (iii) Experience of administering an Animal Husbandry Department or Institute.
17.	Joint Commissioner (Livestock Health Survelience)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in any branch of Veterinary Sc. related to Livestock health discipline from a recognized University or equivalent, (iii) 12 years experience in a supervisory capacity in animal disease control or investigation.
18.	Joint Commissioner (Poultry)	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii) P.G. Degree in Poultry Science from a recognised University or equivalent, (iii) 12 years experience in Poultry Development or research.

19.	Joint Commissioner	(i) Degree in Veterinary Sc. Or Animal Husbandry, (ii)
	(Meat & Meat Products)	Master's degree in meat technology/processing or meat
		inspection/hygiene or marketing of meat or pork
		products of a recognized University or equivalent.

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		(iii) 12 years experience in meat processing, products
		development planning, execution of development
		programmes for production/marketing of meat animals,
		meat/pork and meat/pork products and
		planning/management of modern slaughter houses and
		meat and pork processing plants.
20.	Joint Commissioner	(i) Degree in Veterinary Sc. Or Animal Husbandry,
	(Cattle Breeding Farms)	(ii) P.G. Degree in any branch of Animal Husbandry
	_	including Dairy Husbandry, (iii) 12 years experience
		in Management and Administration of Large Dairy
		Farms, Cattle Herd registration and artificial
		insemination.
21.	Senior Technical	Not available.
	Assistant (Dairy)	
13.	Technical Officer (Dairy	(i) Degree/Diploma of a recognized University/ Institute,
	Development)	(ii) About 2 years (3 years for Diploma holders)
	- '	practical experience of dairying including handling and
		making of milk and milk products.
14.	Assistant Commissioner	(i) Degree/Diploma of a recognized University/
	(Dairy Development)	Institute, (ii) About 5 years experience in Dairy
		Development or dairy products handling and marketing
		of milk products.

<sup>\*</sup>Designations are under change.

# LIST OF VARIOUS ICAR'S RESEARCH INSTITUTES RELATED TO ANIMAL SCIENCES IN INDIA

- 1. Central Avian Research Institute, Izatnagar (243 122,) U.P.
- 2. Central Institute for Research on Buffaloes, Sirsa Road, Hisar (125 001,) Haryana
- 3. Central Institute for Research on Goats, Makhdoom, Mathura (281122, )U.P.
- 4. Central Sheep & Wool Research Institute, Avikanagar-(304 501,) Rajasthan.
- 5. Indian Veterinary Research Institute, Izatnagar (243 122,) U.P.
- 6. National Dairy Research Institute, Karnal (132 001,) Haryana
- 7. National Bureau of Animal Genetic Resources, P.B. 129, Karnal (132 001), Haryana
- 8. National Research Centre on Camel, Jorbeer, PB No. 07, Bikaner (334 001,) Rajasthan
- 9. National Research Centre for Equines, Hisar (125 001,) Haryana
- 10. National Research Centre on Meat, Saidabad, CRIDA Campus, Hyderabad-(500 059).
- 11. National Research Centre for Mithun, Jharnapani, Medziphema, Nagaland (797106).
- 12. Project Directorate on Cattle, Modipuram (250 001, )U.P.
- 13. Project Directorate on Poultry, Rajendranagar, Hyderabad (500 030, )A.P.
- 14. National Institute of Animal Nutrition & Physiology, Adugodi, Bangalore (560 030)
- 15. National Research Centre on Yak, West Kameng (790 010), Arunachal Pradesh
- 16. Project Directorate on Animal Disease Monitoring and Surveillance, Hebbal, Bangalore (560 024,) Karnataka
- 17. Project Directorate on Foot and Mouth Disease, IVRI, Mukeshwar, Kumaon -(263 138,) Uttaranchal
- 18. High security Animal Disease Laboratory (A National Referral Facility) Hathal Kheda Farm, Anand Nagar, Bhopal (462 021, )Madhya Pradesh