



Chapter - III



EDUCATION



3.1 General

The concept of education is based on two-tier system. The first one consists of the higher education covering Agriculture, Horticulture, Agricultural Engineering & Technology, Fisheries Science, Veterinary Science & Animal Husbandry and Agri-Business Management which includes graduate and post graduate resident instruction programmes as well as polytechnic diploma programmes. The second consists of lower education programme provided at the School of Baking, Agro-based ITI, Land scaping and Gardening (*Mali*) Training Centre and Extension Education Training Centres. The higher education programmes are looked after by the Deans and Registrar, while lower education programmes by the Director of Extension Education at the university level. The details for the sixteenth annual report are presented herewith.

3.2 Under Graduate Education

(1) Procedure of Admission

The admission criteria in the Under Graduate programmes in Junagadh Agricultural University are purely on merit basis considering weightage of 60% marks obtained in science subjects like Physics, Chemistry and Biology/ Mathematics at HSCE and 40% marks obtained in Gujarat Common Entrance Test (GUJCET) conducted by GSHEB for all courses except in the faculty of Veterinary Science & Animal Husbandry. In this faculty, the admission is given on the basis of marks obtained in Gujarat Common Entrance Test. English is a compulsory subject for all the under graduate programmes. The students passed science subjects with vocational stream may also be admitted. For admission to B.Sc. (Hons.) Agri., B.Sc. (Hons.) Horti., B.F.Sc. and B.V.Sc. & A.H.; Physics, Chemistry and Biology, while for B.Tech. (Agril. Engg.), Physics, Chemistry and Mathematics subjects are compulsory. Among the seats allotted for

admission, 49% seats are reserved for various Backward Classes, *i.e.* 15% for Schedule Tribes, 7% for Schedule Caste and 27% for Socially and Educationally Backward Communities as declared under Baxi Commission (Mandal Panch). One per cent of available seats are reserved for children of defence personnel and ex-servicemen. Moreover, 5% seats are reserved for disabled (*divyang*) candidates as per the directives from the Supreme Court of India. The students of CBSE, who have passed their examination from school located in Gujarat State, are admitted as per *prorata* basis. There is provision of additional seats for Kashmiri Migrants and Parsi Community (domicile of Gujarat State) also. Out of state quota, 15% seats are reserved for out of state candidates, who have been nominated by ICAR/VCI, respectively. At the university level, the Registrar centrally administers the admission procedure in Agriculture, Horticulture, Agricultural Engineering, Fisheries and Veterinary Science, respectively.

Weightage of marks for participation in sport is given in admission as per the rank obtained in various sports activities. Weightage of 5% marks is given to farmer's son/daughter and students of vocational stream who have passed HSCE with Agriculture subject in addition to Physics, Chemistry and Biology for admission to B.Sc. (Hons.) Agri. and B.Sc. (Hons.) Horti. degree course. In B.F.Sc. degree course, 12% seats are reserved for Fisherman's son/daughter and weightage of 15% marks is given for admission.

All the four Agricultural Universities of Gujarat for all UG programmes adopt centralised online admission procedure.

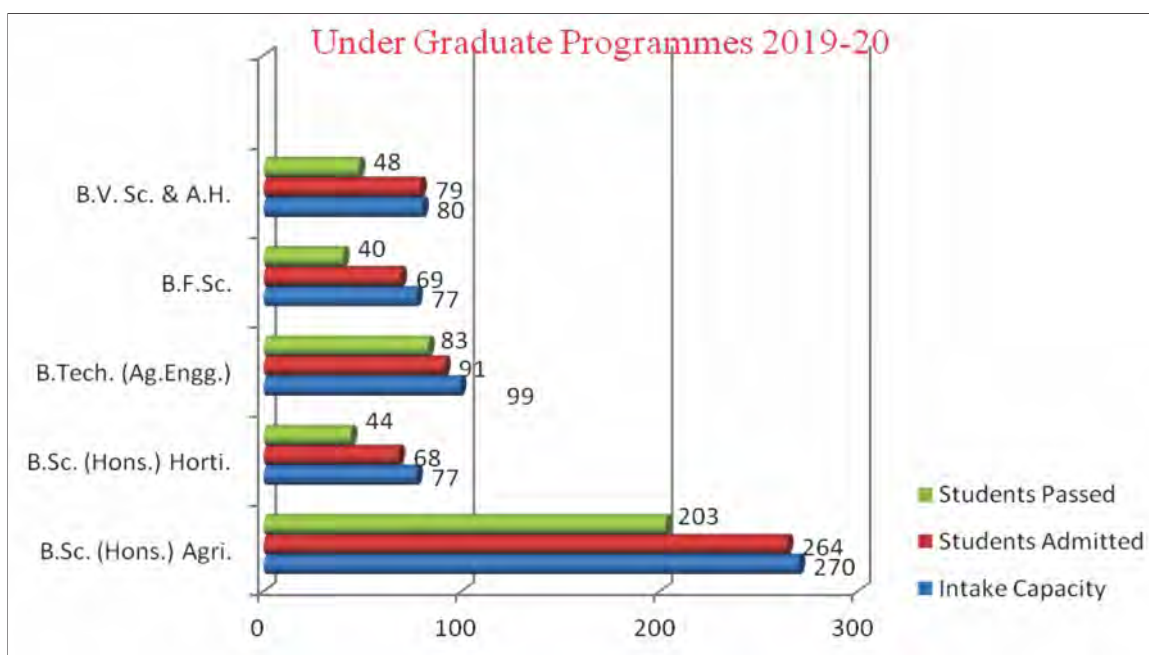
(2) Academic Programmes offered at UG level

Details of admissions at under graduate level in the university for the academic year 2019-20 are given in Table 3.1.

Table 3.1 Under Graduate Programmes

No.	Degree course and duration	College where course offered	Intake capacity*	Students admitted	Students passed
1	B.Sc. (Hons.) Agri. 4 years (8 Semesters)	College of Agriculture, Junagadh	129+20	147	135
2		College of Agriculture, Motabhandariya (Amreli)	77+00	76	48
3		College of Agriculture, Khapat (Porbandar)	44+00	41	20
4	B.Sc. (Hons.) Horti. 4 years (8 Semesters)	College of Horticulture, Junagadh	77+00	68	44
5	B.Tech. (Agril. Engg.) 4 years (8 Semesters)	College of Agricultural Engineering & Technology, Junagadh	86+13	91	83
6	B.F.Sc. 4 years (8 Semesters)	College of Fisheries Science, Veraval	67+10	69	40
7	B.V.Sc. & A.H. 5 years (10 Semesters)	College of Veterinary Science & Animal Husbandry, Junagadh	68+12	79	48
Grand Total			548+55	571	418

*Intake capacity= Free seats + ICAR/VCI nominees



As per the course curriculum of polytechnic diploma programme, there is provision to admit the students through lateral entry, who have passed polytechnic diploma (Three years) to degree programme directly in the second year i.e. third

semester considering the intake capacity of 10% of regular under graduate seats.

Details of admission through diploma to degree programme at under graduate level in the university for the academic year 2019-20 are given below.

Table 3.2 Diploma to Degree Programmes

No.	Degree course	College where course offered	Intake capacity	Students admitted
1	B.Sc. (Hons.) Agri.	College of Agriculture, Junagadh	14	14
2	B.Sc. (Hons.) Agri.	College of Agriculture, Motabhandariya (Amreli)	8	8
3	B.Sc. (Hons.) Agri.	College of Agriculture, Khapat (Porbandar)	4	4
4	B.Sc. (Hons.) Horti.	College of Horticulture, Junagadh	7	7
5	B.Tech. (Agril. Engg.)	College of Agricultural Engg. & Tech., Junagadh	9	9

3.3 Post Graduate Education

The Junagadh Agricultural University imparts Post Graduate instructions with the help of the PG recognized teachers of the university.

(1) Procedure of Admission

- (A) A candidate for admission to the Master's degree should possess Bachelor's degree with an OGPA not less than 6.00 (10.00 basis) or its equivalent in aggregate as well as in the subject in which admission is sought.
- (B) A candidate for admission to the Ph.D. degree programme should possess Master's degree in concerned subject with an OGPA of not less than 6.50 (10.00 basis) or its equivalent.
- (C) A candidate shall have to appear in the entrance test, admission is given on the merit based on weightage of 50% marks obtained in entrance test, and 50% marks of the last degree obtained.
- (D) Relaxation of 5% marks (OGPA at UG/PG level) is given in eligibility to ST, SC and SEBC

candidates for admission to Master/Ph.D. degree.

- (E) Seats for ICAR and Govt. of India nominees, ST, SC, SEBC, Gujarat State nominees and in-service candidates are reserved as per university / ICAR rules.
- (F) All the Agricultural Universities of Gujarat adopts Centralised admission procedure for all PG programmes.
- (G) A candidate should be domicile of Gujarat State. Candidates from other state who has obtained their UG/Master degrees from SAUs of Gujarat shall be admitted on the vacant seats.

(2) Academic Programmes offered at Post Graduates level

Details of admissions at Post Graduate level in the university for the academic year 2019-20 are given in Table 3.3. A total 240 Masters level thesis have been submitted and total 42 Doctoral thesis have been submitted during the period under report.

Table 3.3 Post Graduate Programmes

No.	Name of the course	Duration	College	Intake capacity*	Students admitted	Students passed
1	M.Sc. (Agri.)	2 Years (4 Semesters)	College of Agriculture, Junagadh	102+30*	125	115
2	M.Sc. (Horti.)	2 Years (4 Semesters)	College of Horticulture, Junagadh	17+03	21	18
3	M.Tech. (Agril. Engg.)	2 Years (4 Semesters)	College of Agricultural Engineering & Technology, Junagadh	26+09	23	31
4	M.F.Sc.	2 Years (4 Semesters)	College of Fisheries Science, Veraval	24+07	25	25
5	M.B.A. in Agri-Business	2 Years (4 Semesters)	Post Graduate Institute of Agri-Business Management, Junagadh	29+09	20	32
6	M.V.Sc.	2 Years (4 Semesters)	College of Veterinary Science & Animal Husbandry, Junagadh	41+04	18	19
7	Ph.D.	3 Years (6 Semesters)	College of Agriculture, Junagadh, College of Agricultural Engineering & Technology, Junagadh, College of Veterinary Science & Animal Husbandry, Junagadh, Agri-business Management, Junagadh, and College of Fisheries Science, Veraval	52+12	65	42
Grand Total				291+74	297	282

* In service

*Intake capacity= Free seats + ICAR nominees

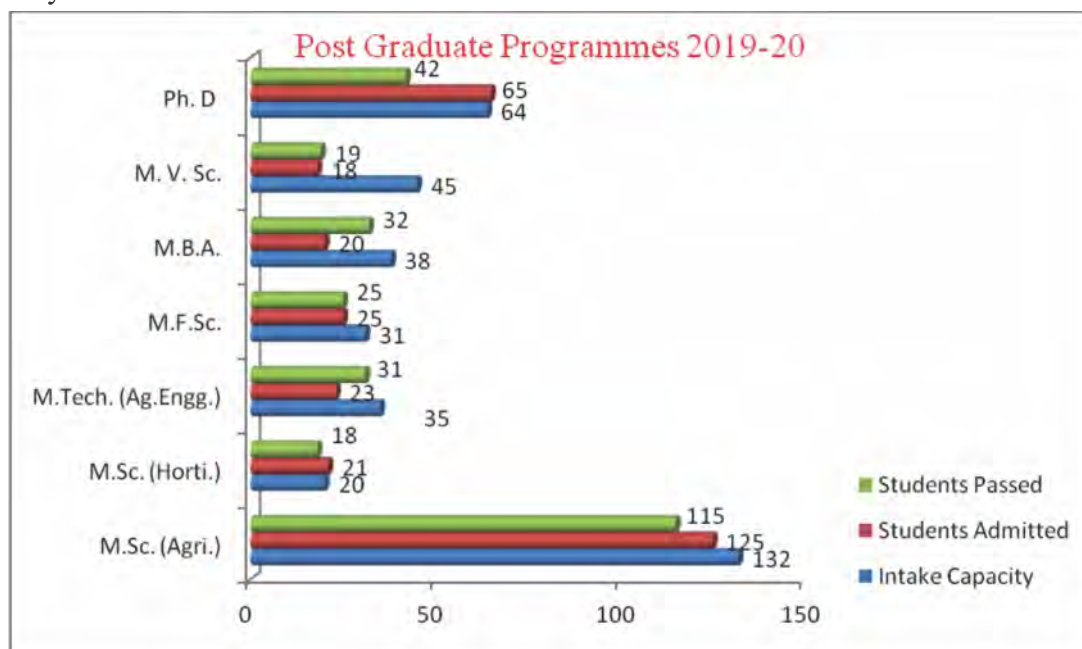


Table 3.4 Number of students graduated with their class obtained from different degree programme during academic year 2019-20.

Degree course	First Class with Distinction	First Class	Second Class	Pass Class	Total
B.Sc. (Hons.) Agri. Junagadh	67	51	15	02	135
B.Sc. (Hons.) Agri. Mota Bhandariya	26	11	01	-	48
B.Sc. (Hons.) Agri. Khapat	11	09	-	-	20
B.Sc. (Hons.) Horti.	30	12	02	-	44
B.Tech. (Ag. Engg.)	33	47	03	-	83
B.F.Sc.	16	22	02	-	40
B.V.Sc. & A.H.	01	17	28	02	48
UG Total					418
M.Sc. (Agri.)	35	68	12	-	115
M.Sc. (Horti)	12	05	01	-	18
M.Tech. (Ag. Engg.)	09	18	05	-	32
M.F.Sc.	13	12	-	-	25
M.V.Sc.	13	06	-	-	19
MBA in AB	04	18	10	-	32
Master Total					241
Ph.D.					42
Grand Total					701

3.4 Polytechnic Diploma Education

Looking to the present scenario of changing pattern in education system, Junagadh Agricultural University have begun three years' Polytechnic Diploma programmes in Agriculture, Horticulture and Agro-Processing. The programmes started from academic year 2009-10 with the aim to cater the present needs in the different areas of agriculture and allied fields. Another two polytechnic programmes i.e. Animal Husbandry and Agril. Engineering was started from academic year 2013-14. The school of Agriculture was also upgraded to Diploma in Agriculture from the academic year 2018-19.

The admission criteria in the diploma programmes in Junagadh Agricultural University is purely on merit basis i.e. percentage of marks obtained at SSCE (10th Standard) with English as a compulsory subject from any statutory Board in the Gujarat State or Examinations recognized as

equivalent thereto. Among the seats allotted for admission, 49% seats are reserved for various Backward Classes, i.e. 15% for Schedule Tribes, 7% for Schedule Caste and 27% for Socially and Educationally Backward Communities as declared under Baxi Commission (Mandal Panch). Moreover, 5% seats are reserved for disabled (divyang) candidates as per the directives from the Supreme Court of India. One per cent seat is also reserved for children of defence personnel/ ex-servicemen.

All the Agricultural Universities of Gujarat for all polytechnic programmes adopt central admission procedure. Weightage of marks for participation in sport is given in admission. Weightage of 5% marks is given to farmer's son/daughter in the Diploma in Agriculture and Horticulture.

(1) Duration and Admission Requirement of Polytechnic Diploma Courses

Admission requirements for diploma courses are shown in Table 3.5

Table 3.5 Admission requirements for polytechnic programmes

Diploma course & Duration	Polytechnic	Eligibility for admission
Diploma in Agriculture 3 years (6 Semesters)	Polytechnic in Agriculture, Dhari Polytechnic in Agriculture, Sidsar Polytechnic in Agriculture, Halvad	The candidate should have passed Secondary School Certificate Examination (SSCE) with English as compulsory subjects from any statutory Board in Gujarat State. The minimum requirement of aggregate marks shall be as under: 1. ST & SC : 35% 2. SEBC : 40% 3. General : 40 %
Diploma in Horticulture 3 years (6 Semesters)	Polytechnic in Horticulture, Junagadh	
Diploma in Agro-Processing 3 years (6 Semesters)	Polytechnic in Agro-Processing, Junagadh	
Diploma in Agril. Engg. 3 years (6 Semesters)	Polytechnic in Agril. Engineering, Targhadia (Rajkot)	
Diploma in Animal Husbandry 3 years (6 Semesters)	Polytechnic in Animal Husbandry, Junagadh	

(2) Admissions of Polytechnic Diploma Courses

Details of admissions at diploma level in the university for the academic year 2019-20 are given in Table 3.6

Table 3.6 Details of admissions at diploma level in the University for the academic year 2019-20

No.	Diploma courses (Polytechnics)	Intake capacity	Students admitted	Students passed
1	Diploma in Agriculture, Dhari	44	42	27
2	Diploma in Agriculture, Halvad	33	28	-
3	Diploma in Agriculture, Sidasar	33	32	-
4	Diploma in Horticulture	44	40	26
5	Diploma in Agro-Processing	44	42	14
6	Diploma in Home Science	00	00	27
7	Diploma in Agril. Engg	44	41	23
8	Diploma in Animal Husbandry	44	43	24
	Total	285	268	141

3.5 Institutional Development Plan

NAHEP has been formulated by ICAR for five years starting from 2017-18. The project is proposed on 50:50 cost-sharing basis between the World Bank and the Government of India, implemented at the Education Division, ICAR, New Delhi. Overall, the project aims to develop resources and mechanism for supporting infrastructure, faculty and student advancement, and providing means for better governance and management of agricultural universities, so that a holistic model can be developed to raise the standard of current agricultural education system that provides more jobs and is entrepreneurship oriented and on par with the global agriculture education standards.

Among the three components of the NAHEP i.e. 1) Support to Agricultural Universities; 2) Investments in ICAR for Leadership in Agricultural Higher Education, and 3) Project Management and Learning; Institutional Development Plan (IDP) is one of the major sub-components of Components-1: Investments toward 21st Century Agricultural Universities Education Plan. The IDP for Junagadh Agricultural University (JAU) has been considered by the ICAR for improving competency of faculty and education quality at graduation level students among all faculties of the JAU. The theme of the project awarded to JAU is "Automation, Robotics and Drone

Technology in Agriculture". This project will attempt to strengthen human resource capabilities by exposing students to international environment of agricultural education. The project will be pillared on fast-learning of emerging technologies like robotics & artificial intelligence so as to meet the demand for highly skilled workers; to reduce drudgery in farm operations and to better explore the needs of biological variability, human interference and inspection, decision making and action in the field of agriculture and allied disciplines. The Followings are the major objectives of the IDP for JAU, Junagadh.

1. To develop skill and inculcate entrepreneurship among the students.
2. To strengthen linkages between institute, industries, corporate and foreign agencies.
3. To strengthen student services and integrated management information system.

Summary of the Progress

The activities conducted under IDP (NAHEP) during 2019-20 are as follows:

- ❖ A total 56 National Seminar/ Workshop/ Training /Short Course were carried during the year 2019-20 and total 3413 students and 250 faculties were benefitted through these programs.
- ❖ A total 24 JAU Students participated in International Training program under NAHEP-IDP at different institutes like a) University of

California (UC), Davis, USA, b) Asian Institute of Technology, Bangkok, Thailand, c) World Vegetable Center (WVC), Taiwan, d) ICBA, Dubai, UAE.



- ❖ A total 8 MoUs were signed during the year 2019-20 under NAHEP-IDP.
- ❖ Artificial Intelligence Laboratories developed at College of Agricultural Engineering and Technology, Junagadh Agricultural University, Junagadh. The major aim behind development of laboratories is to get acquainted with advanced

technologies such as artificial intelligence, robotics, drones, agricultural sensors, CAD designing & simulation and precision agriculture, which are useful to gain practical knowledge and practical demonstration through various sensors. Different farming activities can be done through mobile, computer and sensors through internet such as smart farming, primary processing and produce agricultural information such as soil moisture content, weather information, crop diseases and its remedies etc.



Opening Ceremony of Artificial Intelligent Laboratory at CAET by Hon'ble Minister of Agriculture, Rural Development and Transport, Govt. of Gujarat Shri R. C. Faldu.

❖ **Start-ups enabled by students**

1. Madhav Organic Honey
2. Nav Sarvada Organics Pvt. Ltd.
3. Techno Chem
4. Kisan Agritech
5. K4-Kesar

❖ Following three portals have been developed under NAHEP-IDP Project:

- 1) Learning resources development portal
- 2) Alumni promotion portal
- 3) Student Placement portal

❖ A total 22 students got placement through NAHEP-IDP activities in different companies like Escort, Captain Tractor, NIF, Amnex, Bhoomi Polymer, HDFC bank, Netafim Irrigation, Diets satvik food processing, GSP Pesticide and Mahindra & Mahindra etc.

❖ Around 15 JAU students and 2 faculties were participated in Global Potato Conclave 2020 (GPC 2020) at Mahatma Mandir, Gandhinagar, Gujarat organized during January 28-31, 2020.

❖ A total 1600 participated in Sure Steps to Success: Personality Development and Stress Management including students, faculties and local people organized during August 05, 2019 at JAU, Junagadh.

❖ Industry interface meeting entitled Agricultural & Food Processing Machinery Manufacture Meet was organized at CAET, JAU, Junagadh on November 27, 2019.

❖ A total 17 JAU students and 4 faculties were participated in International symposium on Artificial Intelligence Based Future Technologies in Agriculture at Pune, Maharashtra.

❖ Five JAU students participated in Technology Innovation Forum for Agricultural Nurturing (TIFAN) - 2020 organized by Society of

Automotive Engineers India (SAEINDIA) at Vishwakarma Institute of Technology, Pune, Maharashtra during January 07-09, 2020.

- ❖ A total 35 students of JAU were sent to DA-IICT, Gandhinagar, Gujarat for the Certificate Course on Analytics in Agriculture during June 10, 2019 to July 19, 2019.
- ❖ The Grant received from PIU, NAHEP, New Delhi was Rs. 506.25 lakhs and Rs. 442.72 lakhs was utilized.

3.6 Annual Convocation

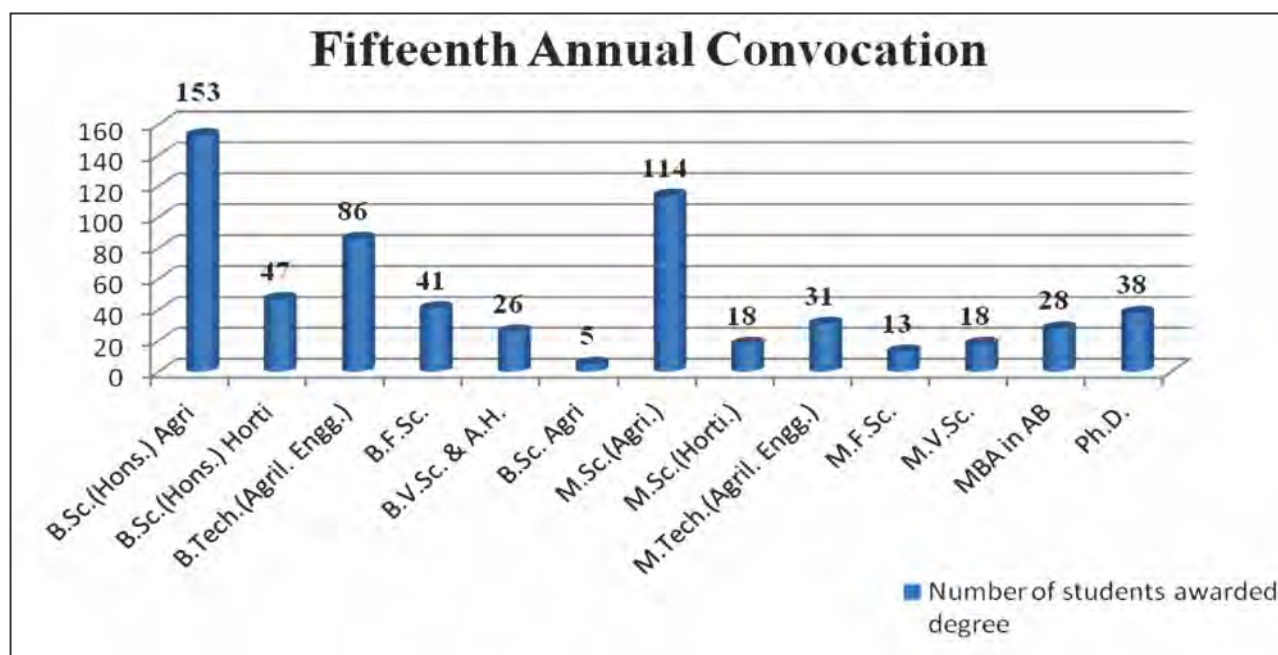
The Fifteenth Annual Convocation was held at

Junagadh on December 27, 2019. Dr. M. B. Chetti, Hon'ble Vice Chancellor, University of Agricultural Sciences, Dharwad (Karnataka) was the chief guest. Hon'ble Governorshri of Gujarat and Chancellor of this university, Shree Acharya Devvrat, awarded as many as 618 students Under Graduate and Post Graduate degrees (Table 3.7). For the academic year 2019-20, 9 Gold Medals, 54 Gold Plated Silver Medals and 2 Cash Prizes were awarded to students for their outstanding performance at examination, achieving high percentage of marks and stood first on merit in various examinations.

Table 3.7 Number of students conferred their degrees with their class obtained from different degree programmes during Fifteenth Annual Convocation

Degree course	First Class with Distinction	First Class	Second Class	Pass Class	Total
B.Sc. (Agri.)	01	01	03	00	05
B.Sc. (Hons.) Agri.	67	68	14	04	153
B.Sc. (Hons.) Horti.	18	26	03	00	47
B.Tech. (Ag. Engg.)	21	51	11	03	86
B.F.Sc.	08	30	03	00	41
B.V.Sc. & A.H.	02	06	16	02	26
UG Total					358
M.Sc. (Agri.)	36	70	08	00	114
M.Sc. (Horti)	06	12	00	00	18
M.Tech. (Ag. Engg.)	09	16	06	00	31
M.F.Sc.	03	10	00	00	13
M.V.Sc.	08	10	00	00	18
MBA in AB	01	15	12	00	28
Master Total					222
Ph.D.					38
Grand Total					618

Fifteenth Annual Convocation



3.7 Anti-Raging

Prevention and Prohibition of Raging

In view of the directives of the Supreme Court in SLP No. 24295 of 2006 dated 16-05-2007 and in Civil Appeal number 887 of 2009, dated 08-05-2009 to prohibit, prevent and eliminate the scourge of ragging including any conduct by any student or students whether by words spoken or written or by an act which has the effect of teasing, treating or handling with rudeness a fresher or any other student, or indulging in rowdy or indisciplined activities by any student or students which causes or is likely to cause annoyance, hardship or psychological harm or to raise fear or apprehension thereof in any fresher or any other student or asking any student to do any act which such student will not in the ordinary course do and which has the effect of causing or generating a sense of shame, or torment or embarrassment so as to adversely affect the physique or psyche of such fresher or any other student, with or without an intent to derive a sadistic pleasure or showing off power, authority or superiority by a student over any fresher or any other student, in all colleges of university, and thereby, to provide for the healthy development,

physically and psychologically, of all students.

A women complaint mechanism cell is established for protection against harassment to girl/woman students. Anyone found guilty will be punished suitably.

3.8 JEMS & NISAGENET

The university has implemented online exam Management System through JEMS (Junagadh Exam Management System). The software has been purchased to strengthen the examination and evaluation system as well as timely and precisely declaration of results, issuing of notification, marksheet and other examination relevant certificates. The convocation module has been developed on JEMS software so that students can fill up online application and fee for annual convocation of the University. Moreover, student corner has been added to the website of the university where students can directly pay the fees online for document verification, convocation, document attestation, etc.