

# EDUCATION



## Chapter - III



## 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 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 seventeenth annual report are presented herewith.

As per the notification No. GKV-201516-GOI-II-K-2 (Part-III) dated: 28/09/2020 from Government of Gujarat, all the UG, PG and polytechnic programmes related to Fisheries Science, Veterinary Science and Anima Husbandary and Dairy Technology were allotted to Kamdhenu University, Gandhinagar for the academic year 2020-21. Hence, the data related to intake, admitted and passed out students are not given in this report.

### 3.2 Under Graduate Education

The under graduate programmes are of duration of 4 years (8 semester) in various faculties with residential faculties.

#### (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 GSEB for all courses. 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., 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, 27% for Socially and Educationally Backward Communities as declared under Baxi Commission (Mandal Panch) and additional 10% seats for EWS are reserved as a supernumerary as per reservation policy. 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, respectively. At the university level, the Registrar centrally administers the admission procedure in Agriculture, Horticulture, Agricultural Engineering, 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.

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 2020-21 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	144	118
2		College of Agriculture, Motabhandariya (Amreli)	67+10	75	46
3		College of Agriculture, Khapat (Porbandar)	44+00	44	18
4	B.Sc. (Hons.) Horti. 4 years (8 Semesters)	College of Horticulture, Junagadh	67+10	71	42
5	B.Tech. (Agril. Engg.) 4 years (8 Semesters)	College of Agricultural Engineering & Technology, Junagadh	86+13	93	71
<b>Grand Total</b>			<b>393+53</b>	<b>427</b>	<b>295</b>

\*Intake capacity= State quota + ICAR quota



Apart from above intake in degree programmes, there is a provision to admit the students through lateral entry, who have passed polytechnic diploma (Three years) from SAUs of Gujarat to degree programme directly in the second year *i.e.* third

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

Details of admission through diploma to degree programme at under graduate level in the university for the academic year 2020-21 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	7

### 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 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.
- 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.
- 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.
- 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.
- 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.

(H) The students appeared in AIAEE of ICAR are admitted through ICAR (25% of intake).

#### (2) Academic Programmes offered at Post Graduates level

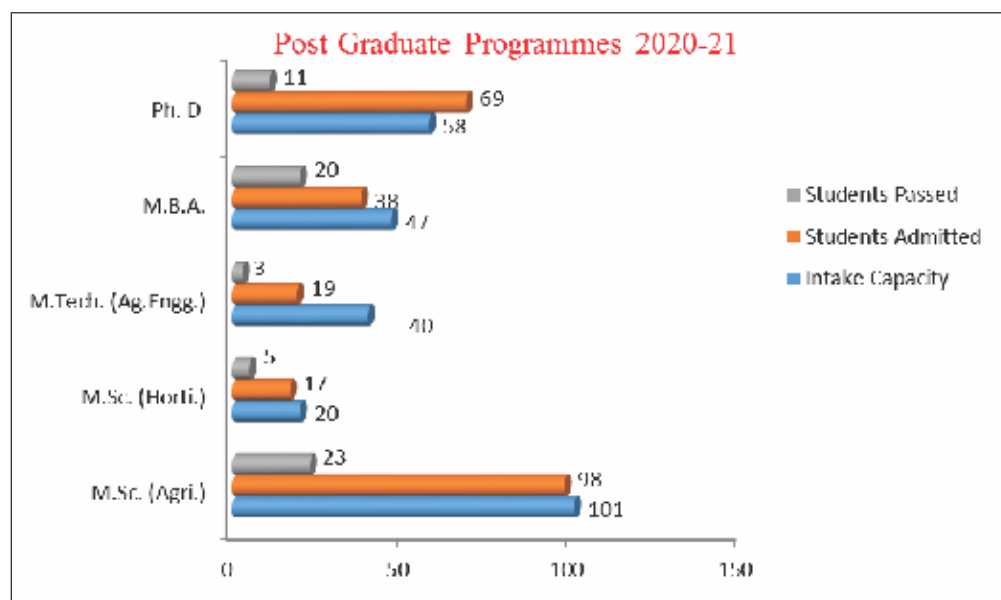
Details of admissions at Post Graduate level in the university for the academic year 2020-21 are given in Table 3.3. A total 172 Masters level thesis have been submitted and 69 Doctoral thesis have been submitted during the period under report.



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	78+23	98	23
2	M.Sc. (Horti.)	2 Years (4 Semesters)	College of Horticulture, Junagadh	17+03	17	05
3	M.Tech. (Agril. Engg.)	2 Years (4 Semesters)	College of Agricultural Engineering & Technology, Junagadh	33+07	19	03
4	M.B.A. in Agri-Business	2 Years (4 Semesters)	Post Graduate Institute of Agri-Business Management, Junagadh	38+09	38	20
5	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	48+10	69	11
<b>Grand Total</b>				<b>266 (214 + 52)</b>	<b>241</b>	<b>62</b>

\*Intake capacity= State quota + ICAR quota



**Table 3.4 Number of students passed out with their class obtained from different degree programme during academic year 2020-21.**

Degree course	First Class with Distinction	First Class	Second Class	Pass Class	Total
B.Sc. (Hons.) Agri. Junagadh	23	73	21	01	118
B.Sc. (Hons.) Agri. Mota Bhandariya	05	31	10	0	46
B.Sc. (Hons.) Agri. Khapat	01	13	04	0	18
B.Sc. (Hons.) Horti.	13	28	01	-	42
B.Tech. (Ag. Engg.)	05	35	31	-	71
<b>UG Total</b>					<b>295</b>
M.Sc. (Agri.)	11	8	04	-	23
M.Sc. (Horti)	04	01	-	-	05
M.Tech. (Ag. Engg.)	01	02	0	-	03
MBA in AB	02	14	02	-	20
<b>Master Total</b>					<b>51</b>
Ph.D.	<b>Ph.D. Total</b>				<b>11</b>
<b>Grand Total</b>					<b>357</b>

### 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 polytechnic programme in Agril. Engineering is started from academic year 2013-14.

The admission criteria in the diploma programmes in Junagadh Agricultural University is purely on merit basis *i.e.* percentage of marks obtained at SSCE (10<sup>th</sup> 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, 27% for

Socially and Educationally Backward Communities as declared under Baxi Commission (Mandal Panch) and additional 10% for Economical Weaker Section as a supernumerary as per Government of Gujarat rules. 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	<p>The candidate should have passed Secondary School Certificate Examination (SSCE) with English as compulsory subjects from any statutory Board in Gujarat State.</p> <p>The minimum requirement of aggregate marks shall be as under:</p> <ol style="list-style-type: none"> <li>1. ST &amp; SC : 35%</li> <li>2. SEBC : 40%</li> <li>3. General : 40 %</li> <li>4. EWS : 40 %</li> </ol>
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)	

## (2) Admissions of Polytechnic Diploma Courses

Details of admissions at diploma level in the university for the academic year 2020-21 are given in Table 3.6

Table 3.6 Details of admissions at diploma level in the University for the academic year 2020-21

No.	Diploma courses (Polytechnics)	Intake capacity	Students admitted	Students passed
1	Diploma in Agriculture, Dhari	44	42	37
2	Diploma in Agriculture, Halvad	33	32	20
3	Diploma in Agriculture, Sidasar	33	33	32
4	Diploma in Horticulture	44	43	35
5	Diploma in Agro-Processing	44	44	25
6	Diploma in Agril. Engg	44	44	26
	<b>Total</b>	<b>242</b>	<b>238</b>	<b>175</b>

## 3.5 Academic Excellence during COVID-19 pandemic

During this pandemic period of COVID-19 prevailing in the country, all colleges including polytechnic have been conducting live online classes ever since lockdown was announced by using various video conferencing apps like Zoom, Google Classrooms, Cisco webex etc. Teachers are adapting themselves well to this challenge and the students seem to lap up the lessons well.

More than 90% attendance is being reported for the virtual classrooms. In last one year, teachers all across

the various faculties have been engaging the students with technology-aided teaching. Home assignments are being sent over WhatsApp, in the form of PDF as well as concepts are being taught in the form of Power-point presentations, recorded video and audio lectures. Doubts are being cleared by being available to the students all the time by being a part of student-teacher WhatsApp groups. Exam question papers, study material and notes are being uploaded regularly on the study portal namely, Academic Information Management System (AIMS) developed by JAU. About 1605 course-wise different material has been uploaded in the AIMS by the various faculties of the



university and the students are utilizing the system in the COVID-19 pandemic situation.

During the year more than 2140 online exams including 462 exams for polytechnic, 1142 for graduate level and 396 for post graduate level midterm and internal exams have been successfully completed. Moreover, various certificates viz., result, Marksheet, provisional passing certificate, etc were given to the passed out students so that they can apply for further studies and to aid to get jobs.

Students from interiors area of different district/village areas of Gujarat, Maharashtra, Rajasthan, Karnataka, Kerala, Assam, Uttar Pradesh, Bihar, Madhya Pradesh and Jammu and Kashmir have given these examinations right from their home without any absentia. Moreover, for post graduate students, keeping in view their higher education and jobs related issues their prelim exam, prelim viva-voce exam, seminar, pre thesis seminar and thesis viva exam have also been conducted online through using various video conferencing apps like Zoom, Google Classrooms, Cisco webex etc. for various faculties and disciplines of the University.



### 3.6 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 21<sup>st</sup> 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

1. JAU has ranked 1<sup>st</sup> for consecutively second time in all India amongst all Agricultural Universities in the Annual Review Meeting of NAHEP-IDP.





2. A total of 12890 undergraduate students, 2205 faculties of the university and 3837 other were benefited from the events conducted by university in the year. The students were also motivated to participate in the various on campus as well as off campus technical and soft skill development events. Twenty-four (24) students got benefitted through such initiatives and get placement in different multi-national companies, private as well as public sector.
3. During the year 6 Entrepreneurship Courses with 3125 beneficiaries, 18 Vocational courses with 8490 beneficiaries, one Certification courses with 41 beneficiaries and 43 Skill development courses with 7277 beneficiaries.
4. Six students completed their International Training: Three students from College of Fisheries, JAU, Junagadh successfully completed their training entitled Application of Smart Aquaculture Technologies at Asian Institute of Technology, Bangkok, Thailand which was from January 5, 2020 to April 4, 2020. Three students from College of Agriculture, JAU, Junagadh successfully completed their training on Comparative evaluation of salinity tolerance in different crops, Agronomical and physiological evaluation in quinoa genotypes growing under saline irrigation and Phenotypic evaluation of genome wide association mapping panel of quinoa at International Center for Biosaline Agriculture (ICBA), Dubai, UAE which held during March 1, 2020 to May 31, 2020.
5. A National Webinar “Post COVID-19 Pandemic Agri-Business: Challenges and Opportunities” was organized during June 13-14, 2020 wherein 176 students and 927 faculties participated.
6. The vaccination programme for COVID-19 was arranged during March 30-31, 2021 at JAU Health Center as a part of Social Safeguard Plus activity, wherein 768 staff members were vaccinated.
7. Various skill development courses entitled Introduction to Matrix Laboratory (MatLab) software and application of MatLab in agricultural domain, Application of CAD in Agricultural Engineering, Advanced Machinery for Tillage operations, Advanced Food Processing Techniques, Application of Robotics in Agriculture and Application of Remote Sensing and GIS in Agriculture Domain were organized online due to outbreak of COVID-19 pandemic.



**JAU Students with Faculties at ICBA, Dubai during International Training**  
March 1, 2020 to May 31, 2020



**One week online training on English Proficiency and Communication Skills from 24<sup>th</sup> -29<sup>th</sup> August, 2020**



Shri Narendra Singh Tomar, Hon'ble Cabinet Minister , Ministry of Agriculture & Farmers Welfare, Rural Development and Panchayati Raj, Government of India

**National WEBINAR on 'Post COVID-19 Agribusiness – Challenges and Opportunities'**



**Mock Drill at University Bhavan, JAU, Junagadh December 31, 2020**



**Publication included the Training Materials, Training Manuals (CD/DVD) in soft and hard copies**



**Fit India Freedom run on 14<sup>th</sup> Sept. 2020**



**Tree plantation by Dr. V.P. Chovatia, Hon'ble Vice Chancellor, PI-IDP and Director of Research**



Lecture given by trainer on Birth Anniversary of Sardar Patel



Robotic Clay Fraction Analyzer



National Training Programme on “Cutting Edge Epitome of Post-Harvest Processing and Management of Horticultural Crops” on 18<sup>th</sup>-22<sup>nd</sup> January, 2021 Under NAHEP-IDP



AI Lab Classroom Developed at CAET, JAU, Junagadh under NAHEP-IDP

### **PROCUREMENT ACTIVITY:**



Ion Chef

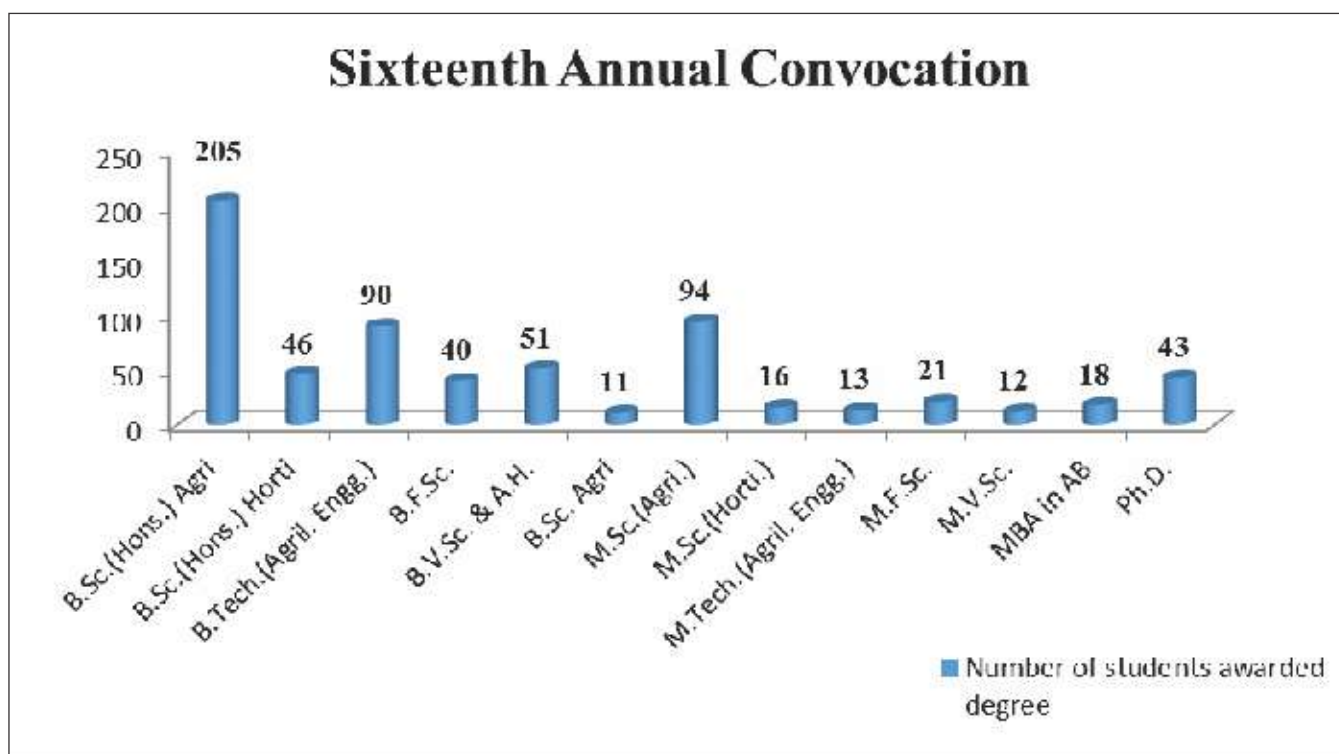
### **3.7 Annual Convocation**

The Sixteenth Annual Convocation was held at Junagadh on February 06, 2021. **Padma Bhushan Shri Rajnikant Shroff, Chairman and Managing Director, UPL** was the chief guest. Hon'ble Governorshri of Gujarat and Chancellor of this university, Shree Acharya Devvrat, awarded as many as 660 Under Graduate and Post Graduate degrees (Table 3.7). For the academic year 2020-21, 10 Gold Medals, 59 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 Sixteenth Annual Convocation**

Degree course	First Class with Distinction	First Class	Second Class	Pass Class	Total	
B.Sc. (Agri.)	01	01	07	02	11	
B.Sc. (Hons.) Agri.	105	82	16	02	205	
B.Sc. (Hons.) Horti.	31	13	02	00	46	
B.Tech. (Ag. Engg.)	35	51	05	01	90	
B.F.Sc.	16	22	02	00	40	
B.V.Sc. & A.H.	01	18	29	03	51	
<b>UG Total</b>					<b>443</b>	
M.Sc. (Agri.)	33	55	06	00	94	
M.Sc. (Horti)	06	10	00	00	16	
M.Tech. (Ag. Engg.)	03	08	02	00	13	
M.F.Sc.	12	08	01	00	21	
M.V.Sc.	09	03	00	00	12	
MBA in AB	04	08	06	00	18	
<b>Master Total</b>					<b>174</b>	
Ph.D.					<b>Ph.D. Total</b>	<b>43</b>
<b>Grand Total</b>					<b>660</b>	





### 3.8 Anti-Raging

#### Prevention and Prohibition of Ragging

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. No one found guilty during the year.

### 3.9 JAU Examination Management System (JEMS)

The University has implemented Online Exam Management System (JEMS) by which all the academic administration procedures viz. from registration of students to degree printing during convocation have been made through the JEMS only. In this system, the results of various examination conducted in polytechnic / under-graduate / post-graduate are prepared as well as declared promptly and precisely. The various mark sheets / transcripts / certificates (PPC/PDC/Migration certificate etc.) of students may also be generated through this system only.

In post graduate studies, this system has replaced the cumbersome paper procedure to paperless system i.e. filling of campus form, filling of course card, online submission of synopsis for Dean PG's approval, Proposal of Qualifying examination including written and oral examination, Proposal of External examiner for thesis evaluation as well as Oral thesis viva-voce examination, submission of result of thesis evaluation as well as declaration of Notification and transcripts etc.

This system has also implemented for all academic procedures required during convocation i.e. application of candidate for convocation, In-house printing of degree of students of various faculties, preparing of list for gold medalist, preparation of list of degree recipients etc. This system has effectively implemented and used in the university and took a step forward to Digitalization and transparency in the administration (e-governance).

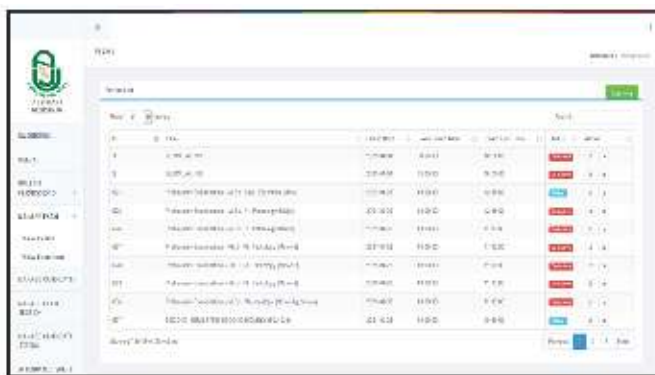


JAU Examination Management Software



➤ **Online Examination System**

Online examinations system developed by University for various examinations conducted by colleges / university for PG admission as well as for recruitment. The results of these examinations were delayed due to offline mode examination. Online Examination System (OES) is very useful on many number of terminals in university Examination Hall. Also, the result of candidate is displayed immediately on his terminal screen as soon as he/she finishes the examination. Hence, the examination process became faster as well as transparent.



JAU Online examination system

➤ **E-learning Solutions for Students**



Online examination appears by students at University Examination Hall

The world is rapidly adapting to this changing trend from traditional teaching to e-learning. Academic Information Management System (AIMS)

is helpful to graduate / postgraduate students of university. This system provides learning material shared by course teacher online and it is available to learn "anytime, anywhere." The course teacher can share learning material in various formats like power point presentation, text, sound, graphics and video to the students.

➤ **Online Mock Test Examination System**

This system is very useful for the university students to prepare themselves for various competitive examinations like JRF, SRF, NET, ARS, GATE, etc.

