

Academic Audit

AY - 2020-2021

Dept. of Microbiology

PSGVP Mandal's Arts, Science & Comm. College,
SHAHADA 425409 Tel (02565) 229576



ACADEMIC AND ADMINISTRATIVE AUDIT OF THE DEPARTMENT

Year - 2020-2021

1	Name of the Department	:	Microbiology			
2	Year of establishment	:	1988			
3	Courses offered	:	UG, PG, M. Phil., Ph.D.			
		Year of Introduction	UG	PG	M.Phil	Ph.D.
			1991	2007	2009	2009
4	Courses introduced during last year	:	NIL			
5	Does the department have Academic flexibility? If yes since when?	:	NO			
6	Interdisciplinary programs offered and departments involved	:	NO			
7	Courses conducted in collaboration with other Institutions:	:	NO			
8	Details of programmes discontinued, if any, with reasons:	:	NIL			
9	Examination System: Annual/ Semester/Choice Based Credit System/ Credit and Grading system/ any other system, specify:	:	Choice Based Credit System			
10	Participation of the department in the curriculum development for courses offered by the Departments.	:	All members participate in the curriculum design for courses offered by the department.			
11	Does the department have different syllabus than the one used by university for UG and PG courses?	:	NO			

12	Number of teaching posts sanctioned, filled and vacant.
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Designation	Sanctioned	Filled	Filled under CAS
Professor	02	02	02
Associate Professor	01	01	01
Assistant Professor	05	01	00
Total	05	04	04

13	Faculty profile with name, qualification, designation, experience, nature of appointment (confirmed/ probation/temporary)
a)	Appointed on Government Sanctioned Post.

Name	Designation	Qualifications	Teaching/Research Experience (Yrs)	Nature of appointment
Dr. R. Z. Sayyed	Professor	M.Sc.Ph.D.	17/17	Permanent
Dr. V. M. Chaudhari	Associate Professor	M.Sc.Ph.D.	21/03	Permanent
Dr. A. H. Jobanputra	Professor	M.Sc.Ph.D.	24/17	Permanent
Dr. M. M. Jogi	Assistant Professor	M.Sc.Ph.D. MBA (HRM)	22/10	Permanent

b)	Appointed from College Fund / CHB.
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Name	Designation	Qualifications	Teaching/Research Experience (Yrs)	Nature of appointment
NIL	NIL	NIL	NIL	NIL

14	List of Visiting Fellows/Teachers, Adjunct and Emeritus Professors, (for last 4 years).	:	NIL
15	Percentage of classes taken by temporary/visiting faculty (programme wise information)		

Program	Total No. of classes	No. Classes taken by temporary staff	% Classes taken by temporary staff
UG	172	00	00.163
PG	120	30	25.00

16	Programme-wise Student Teacher Ratio: (Average of 4 Years)
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Program	No. of students	No. of Teachers	Student Teacher Ratio
UG	374	04	93:1
PG	52	04	10.4:1

17	Number of academic support staff (technical) and administrative staff sanctioned, filled and vacant
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Sr. No.	Posts	Sanctioned posts	Filled	Actual
1	Laboratory Assistant	01	01	01
2	Clerk (office)	NA	NA	NA
3	Laboratory Attendant	01	01	01
4	Peon	01	01	01
5	Other	00	00	00

18	Thrust areas of research as identified by the department	: Plant-Microbe Interaction (PGPR) Biodegradable polymers Biopigments Hydrocarbon degradation Biosurfactants Industrial Waste water treatment Bioremediation Environmental Microbiology
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19	Information about research grants, projects completed and ongoing during the period of last year
a)	From National funding agencies (like UGC, CSIR, DST, DBT etc):

Sr. No.	Name of the PI (Co-investigator)	Title of the Project	Funding Agency, Duration & date of sanction	Amount (in Lakh)	Remarks if any
1)	NIL	NIL	NIL	NIL	NIL

b)	From International funding agencies
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Sr. No.	Name of the PI (Co-investigator)	Title of the Project	Funding Agency, Duration & date of sanction	Amount (in Lakh)	Remarks if any
1)	NIL	NIL	NIL	NIL	NIL

20	Funds received at Departmental level through DST-FIST; CSIR, UGC-SAP/CAS, DAE, DBT, BRNS, ICSSR, AICTE, DBT etc
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Scheme & Funding Agency	Non- Recurring (Rs in lacs)	Recurring (RS in lacs)	Project Fellow	Total (Rs in Lacs)
DBT Star College Scheme	10	03	NIL	13

21	Research facilities available in the department and recognition received, if any?	<ul style="list-style-type: none"> ▪ Approved Research Guide : 04 No ▪ Independent Research Lab : 01 No ▪ UV Vis Spectrophotometer : 01 No ▪ Gas Chromatograph : 01 No ▪ Fermentor/Bioreacor : 01 No ▪ Cooling centrifuge : 01 No ▪ High speed centrifuge : 01 No ▪ Laminar Air flow : 02 No ▪ Research Microscope : 01 No
22	Special research laboratories sponsored by / created by industry or corporate bodies.	NIL
23	Publications	

Name of faculty	Papers published in journals	Monographs, Books, chapters in books	Citations	h-index	Impact factor range/Average Impact factor
Dr. R. Z. Sayyed	29	03+06	640	22	4.762-0.00
Dr. V.M. Chaudhari	02	00	00	00	00
Dr. A. H. Jobanputra	01	00	13	03	0.3
Dr. M. M. Jogi -	00	00	00	00	00

24	Details of patents filed & granted and income generated	: NIL
25	Consultancy services provided, name of the teacher/s and income generated :	

Sr. No.	Name of the teacher	Nature of consultancy	Funds generated
	NIL	NIL	NIL

26	Details of teachers invited as resource persons for Refresher courses, Orientation courses, Seminars, Workshops, Conferences at national and international levels.
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Sr. No.	Name of the teacher	Event	Dates and place
1)	Prof. R. Z. Sayyed	International E-conference Emerging Innovation and Advancement	25-27 Jul 2020

		in Biological Sciences Human Welfare and Agriculture Research in Current Era	Mathura,
2)		National SAGE Talks. SAGE Univ, Bhopal	28 July 2020 Bhopal
3)	Dr. M. M. Jogi	National seminar on women empowerment	Online Shri Kumarswami Mahavidyalay, Ausa, Dist. Latur, MH. 06/01/2021
4)	Dr. M. M. Jogi	University level workshop on audit courses	Online PSGVP ASC College, Shahada 11/05/2021

27	Details of teachers participated in Refresher courses, Orientation courses, Seminars, Workshops, Conferences at national and international levels. (participant, presented paper, chaired the session)			
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Sr. No.	Title of the Seminar/workshop	Level and Sponsorer	Place and Date	Attended/Chaired / Paper presented
Prof. R. Z. Sayyed				
1	Train-the Teacher Training Program, KBCNMU, Jalgaon	University	KBC NMU 20-23 Jul 2020	Attended
2	Recent Trends in Applied Sciences : Challenges and opportunities	National	17-18 Jun 2020	Key Note Speaker
3	Emerging Innovation and Advancement in Biological Sciences Human Welfare and Agriculture Research in Current Era	International E-conference	Mathura 25-27 Jul 2020	Key Note Speaker
4	RUSA- Web Based Software Application	National Mithibai College, Mumbai	Mumbai 08 Jul 2020	Attended
5	SAGE Talks	National SAGE Univ, Bhopal	Bhopal 28 July 2020	Guest Speaker
6	Faculty Development Program – ICT	University Master Software, Nagpur	Nagpur 04-08-2020	Attended
Dr. V. M Chaudhari				
7	National Webinar on Biodiversity and environment Health Protection	National	Nagpur, 5 th June 2020	Attended
8	National Level Faculty Development Program on “E-Content Development”	National	5-10 June 2020. Sawantwadi	Attended
9	National Level Seminar On Research Methodology and SPSS	National UGC Paramarsh Scheme	8 th & 9 th June 2020 Baramati	Attended
10	National webinar on Gender Equality and Women Empowerment		9 th July 2020 Indore	Attended
11	One Week Online National Faculty Development Program on E-Contents and ICT Tools for Innovative and		8-14 Aug, 2020, Roorkee, Uttarakhand	Attended

	Effective Teaching & Learning Process			
12	National Seminar on Intellectual Property Rights		11 th Feb.2021, Shahada.	Attended
13	National Webinar on Ecosystem Restoration		5 th Jun 2021 Nagpur	Attended

Prof. A. H. Jobanputra

14	Global food Security in Post COVID Era	International	08-05-2020 Bareilly college,	Attended
15	RUSA Web Based Software Application	National	RUSA Web Based Software Application	Attended
16	Revised NAAC Assessment and Accreditation Process for HEIs	National	04-08-2020	Attended

Dr. M. M. Jogi

17	FDP on Computational Biology	REVA University	1 ST to 5 TH Feb 2021.	Attended
18	National workshop on effective documentation of teachers (as per NAAC)	G N College Narangawal	30-03-2021	Attended

28	Participation of teachers in various academic activities as members of committees at University level, State level, National level, International level bodies. (give details)
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Sr. No.	Name of the teacher	Member as	Dates and place
1)	Dr. R. Z. Sayyed	<ul style="list-style-type: none"> Chairman, Asian PGPR Society Member BOS, KBC NMU, Jalgaon 	2017 2018
2)	Dr. V.M. Chaudhari -	Member BOS, KBC NMU, Jalgaon	2019
3)	Dr. A. H. Jobanputra	Member, BOS Life Science KBC, NMU	2019
4)	Dr. M. M. Jogi	Member, BOS, KBC NMU, Jalgaon	2019

29	Details of teachers appointed/nominated on Editorial Boards at university, state, National and International levels.
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Sr. No.	Name of the teacher	Nominated as	Dates and place
1).	Dr. R. Z. Sayyed	Associate Editor - Environmental Sustainability	2018 till today
2).		Guest Editor Sustainability – MDPI	Aug 2020

30	Awards / Prizes and recognitions received by teachers at university, state, national and international level
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Sr.	Name of the teacher	Awards/ Prizes at	Dates and place
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No.			
1)	Dr. R. Z. Sayyed	Outstanding Achievement Award for PGPR Research and Excellence in Academics	Kalp Lab., Mathura, 27 Jul 2020

31	Details of Seminars/ Conferences/Workshops organized by the Dept, (State/ National /International level and the source of funding with details		
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Name of Conference/ Seminars / Workshops	Funding agency	No. of Participants	University/State/National/ International	Dates
Women's Day Workshop.	---	---	University level	08 Mar 2021

31	Awards and Prizes received by students at university, state, national and international level		
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Sr. No.	Name of the student	Awards/ Prizes at	Dates and place
1	Ms. Shubhangi Pardeshi	Silver Medal	May 2020, KBC NMU Jalgaon Examination
2	Ms. Aaisha	Silver Medal	
3	Ms. Gayatri Sindhi	Bronze medal	

33	Student profile programme-wise at UG and PG		
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UG/PG	Applications Received	No. of students Admitted	Seats Available	Male	Female	Total	Year
T.Y.B.Sc.	101	88	88	19	69	88	2020-21
M.Sc.	41	30	30	08	22	24	2020-21

34	Year-wise results of students at UG and PG		
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Class (UG & PG)	Appeared	Passed	Pass %	Grade %			
				O	A	B	C
F.Y.B.Sc.	154	83	54.19	04	29	27	18
S.Y.B.Sc.	94	54	57.44	01	19	16	01
T.Y.B.Sc.	48	44	92.53	09	19	16	02
M.Sc. (I)	24	23	97.82	00	13	06	00
M.Sc. (II)	19	18	96.42	08	07	02	01

35	Information about M. Phil./Ph.D. students working		
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Name of student	Reg. No.	Title of Thesis
Mitesh H Khairnar (Guide- Dr RZ Sayyed)	KBCNMU/11/Ph.D./Micro./731 /2018 16-10-2019 (RRC)	Genetic diversity and plant growth-promoting activities of rhizobia associated with fenugreek (<i>Trigonella foenum-graecum</i>) cultivated in different parts of India
Mrs. Mariya Husain (Guide-Dr AH Jobanputra)	NMU/11/Ph.D/Micro/164/2014 Dated 09-02-2015	Isolation & Characterisation of Feather Degrading microorganisms from Khandesh Region
Kaveri Sanjay Palekar		
Varsha Sachin Mistry		
Shashikant Anant Joshi		
Vipool Aanand Thorat		

36	Name of students who are awarded with M.Phil., Ph.D. degree this year
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M.Phil	Ph.D.	Declaration date
NIL	Mr. Swapnil S. Joshi (Guide-Prof. Dr. A.H. Jobanputra)	07/05/2021
NIL	Hitendra Praksh Jadhav (Guide- Dr RZ Sayyed)	07/06/2021

37	Diversity of Students : (Year-wise)
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Name of the Programme	% of students from the same university	% of students from other universities within the State	% of students from universities outside the State	% of students from other countries
T.Y.B.Sc.	100	00	00	00
MSc. I	00	00	00	00
M.Phil.	00	00	00	00
Ph. D.	02	04	01	00

38	Name of students cleared Civil Services and Defense Services examinations, NET, SET, GATE and other competitive examinations? Give Category wise data.
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MPSC/UPSC	NET/ SET	GATE	Other Exams
00	00	00	00

39	Student progression/ placement record: Number/ percentage of students proceeded for higher studies Number/percentage of students placed:
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% proceeded for higher studies		% of students placed
UG to PG	PG to Ph.D./ M.Phil	
26	00	00

40	Diversity of Faculty
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Teaching faculty	%
from the same university	75
from other universities within the State	25
from other States	00
from outside the country	00

41	Present details of departmental infrastructural & other facilities with regard to		
a	Central Library Books and Journals, etc, relevant to Department	:	
b	Departmental Library (books, journals etc.)	:	<ul style="list-style-type: none"> Departmental Library contains more than 90 reference and text books and 11 research journals
c	No. of Computers and Internet facilities for staff	:	03 PC and 01 Lap top, 10 mbps Internet facility to every staff
d	Total number of class rooms	:	04
e	Class rooms with ICT facility	:	01
f	Students' laboratory	:	04
g	Research laboratories	:	01
h	Seminar Hall	:	01
i	Smart class room	:	00
j	Any other facility LCDs	:	01
42	Curricular Aspects		
a	Has the faculty taken initiative in curriculum development process? Give in detail	:	<p>All faculty members are the members of Board of studies in Life Science</p> <p>Every faculty member participate in curriculum designing of TYBSc. Microbiology, Biotechnology and Biochemistry curriculum designing 2020</p>
b	Is curriculum suitable to make students globally competitive in the	:	Yes

	subject? If yes, substantiate		
c	Does the department offer program with sufficient no. of electives options. Explain	:	Yes. Elective courses as prescribed by the affiliating University
d	While framing curriculum, is feed-back taken from stakeholder's viz. Students/Alumni/Parents/Employers considered?	:	Yes
e	What is the frequency of curriculum revision? (3/4/5 years or more)	:	3 years
f	Does the curriculum have emerging thrust areas, including interdisciplinary areas? (If yes, elaborate).	:	Yes. It has Biophysics, Biochemistry, Nanotechnology, Molecular Biology aspects
43	Teaching-Learning, Evaluation.		
1)	Number of teachers preparing & following Academic Teaching plan	:	04 (All)
2)	How many teachers use the following teaching methods:		
a)	Interactive lecture method using blackboard, Group discussions, Problem solving, Seminars	:	04 (All)
b)	Use ICT methods to support lectures.	:	04 (All)
3)	Does the Department have Peer review processes? If yes, are the suggestions effectively used to improve the teaching quality?	:	Yes Yes
4)	Does the department have any mechanism to ensure that entire syllabus is completed?	:	Yes. Teaching plans prepared by faculty are evaluated by Head, Vice Principal and Principal Syllabus Completion Report submitted semester-wise
5)	Do you offer Bridge/Remedial /Certificate courses? Give details.	:	Remedial coaching for poor learners Certificate course in Lab Technology is proposed
6)	What is the method for conducting internal evaluation?	:	Internal Examinations Tests Assignments Online platforms followed for teaching. Google forms and video conferencing are adopted for Practical Examination and

			Ph.D. viva-voce
44	Teacher Performance		
1)	Whether the performance of the teacher assessed by the students? If yes, are the feedback reports analysed and suggestions communicated to teachers?	:	Yes Yes
2)	Number of teachers getting a) Very Good b) Good c) Average remarks from students.	:	04 00 00
3)	Whether suggestion boxes are kept in the department to get suggestions from students on infrastructural facilities available in the department?	:	NO
4)	Are the suggestions received from students used for improvement of facilities?	:	Yes
5)	Do teachers submit Self-Appraisal Reports? Are these reports appraised by HOD & forwarded to the IQAC?	:	Yes
6)	What is Departmental average API? How many teachers have API > Average API	:	241.6
7)	What is the individual faculty wise h index ?		

Sr. No.	Name of the teacher	h- index as per		
		Google Scholar	Scopus	Research Gate
a)	Dr. R. Z. Sayyed	22	15	10
b)	Dr. V. M. Chaudhari	00	00	00
c)	Dr. A. H. Jobanputra	06	NA	NA
d)	Dr. M. M. Jogi	NA	NA	NA

NA- Not Available

8)	Give details of “beyond syllabus scholarly activities” of the Dept.	:	1. Visits to Industry, Clinical laboratories and Agriculture Institutes 2. NET/SET/ GATE guidance
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		3. Guiding students to participate in University Level Avishkar Competition
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45	List the distinguished alumni of the department (Each member should provide 03 names)
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Sl No	Name of Alumni	Position / Post of Alumni	Name and Address of Company/Firm/Institute	Mob No & Email id of Alumni
1	Mr. Sharma Sunny Dipak	Junior officer	Wockhardt Ltd. Daman (kadaiya)	97679 05296
2	Ms. Ptil Shubhangini Vasant	QC Trainee	Glenmark Life Sciences Ltd. Ankleshwar GIDC 393001 Ankleshwar	7020575739
3	Khairnar Chetan Ramesh	Desi- Trainee	Ciron drugs & Pharma Pvt Ltd, Palghar	99705 44733
4	Ms More Puja Krishna More	Researcher	MS University, Vadodara	9503 786667
5	Agrawal Pratik Jagdish	Medical Lab owner	Dutta Hospital, Taloda	97308 81600
6	Mr. Ramakant Devidas Mali	CHB lecturer	PSGVPM ASC College, Shahada.	96890 42579
7	Ms. Divyani Devichand Jain	CHB lecturer	PSGVPM ASC College, Shahada.	96572 63024
8	Ms. Rupali Ravindra Patil	CHB lecturer	PSGVPM ASC College, Shahada.	96042 11302
9	Dhanshree Patel	QA Office	Sun Pharmaceutical Ltd., Vadodara	
10	Dhananjay Sonwane Dilprao	Sr. Officer	Sun Pharma. Advance Research Centre, Vadodara	8600538353

46	Give details of student enrichment programmes (special lectures / workshops / seminar) involving external experts.	:	Remedial coaching for poor learners Student unit of Microbiology Society of India set up in which 40 students enrolled themselves as members of the unit. Group discussions, Quiz etc were some activities in which the students and staff have participated. Participation in activities of Unit related to Covid19 pandemic
47	How does the department ensure that program objectives are constantly met & learning outcomes are monitored?	:	Periodical monitoring of activities

48	Highlight the Special facilities (if, any) of the Department.	:	<ul style="list-style-type: none"> ▪ Bioreactor ▪ Gas chromatograph ▪ UV-Vis spectrophotometer ▪ Cooling centrifuge ▪ Research facilities
49	Highlight the unique features of the department.	:	<ul style="list-style-type: none"> ▪ Research laboratory recognized by Univ ▪ 75% staff approved as Research Guide ▪ Good No of Ph.Ds produced every year
50	State the Innovative practices adopted in the department.	:	<ul style="list-style-type: none"> ▪ Participation of students in Avishkar ▪ Participation of students in group project ▪ Participation of students in Seminar Quiz ▪ Participation of students in Microbioolympiad ▪ Continuous assessment of theory and practical courses is practiced. ▪ Class room seminars on topics of scientific importance are regularly arranged.
51	State the Two Best practices adopted in the department.	:	<ul style="list-style-type: none"> Participation of students in Avishkar Participation of students in group project ICT Teaching Providing Lecture Modules
52	Highlight the participation of students and faculty in extension activities.	:	<ul style="list-style-type: none"> Tree plantation Clean and Green Campus Visits to industry and clinical laboratories
53	Detail five major Strengths, Weaknesses, Opportunities and Challenges (SWOC) of the department.		
a	Strengths		
	<ul style="list-style-type: none"> ▪ Excellent research achievements through good instrumentation facility. ▪ Innovative Service in the form of Blood Group checking. ▪ Equipments purchased through Project funds. ▪ 100 % staff involved in research. ▪ Students achieving good opportunities in professional career. ▪ B.Sc and M.Sc. students getting higher ranks and medals at university level. ▪ 100 % staff involved in curriculum designing at various levels. ▪ 100 % staff involved in co-curricular and extracurricular activities. 		

b	Weaknesses
	<ul style="list-style-type: none"> Fellowships need to be generated for research scholars. Campus interviews for placements. Industrial training to students. Student to teacher ratio is high. Time constraint in semester pattern is the main setback for the course.
C	Opportunities
	Shahada being an agricultural area opportunities for students need to be raised for business training like Biofertilizer production, Mushroom cultivation, Waste management.
d	Challenges
	<ul style="list-style-type: none"> Tribal students from economically, educationally and socially backward group of the society are to be educated and trained academically and professionally which itself is a biggest challenge. To provide 100% campus placement To increase research facilities comparable to other national laboratories.
54	Future plans of the department
a)	Long term plans
	<ul style="list-style-type: none"> Setting of biofertilizers and Biopesticides Park. Organisation of Conferences for increasing research interest Organization of state level poster competitions, seminar competitions for students. Submission of projects for generating finance for research scholars and equipments. Setting up of placement facilities for students. Student oriented wallpaper activity Tie-ups with NGOs and industries.
b)	Short term plans
	<ul style="list-style-type: none"> Introduction of certificate course in Laboratory Technology Inclusion of carrier oriented programs for increasing placement opportunities. Organization of instrumentation workshops Organization of workshop on writing skills Adoption of e-learning methods.

Declaration by the Head of the Department/Institution

I am aware that the above information provided by the department will be validated by the Academic Audit committee during the visit.



Dr. R. Z. Sayyed
Head of Department

Date: 14.06.2021



Prof. Dr. R. S. Patil
Principal

Date:
PRINCIPAL

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