

**GOVERNMENT DEGREE COLLEGE, GAJWEL,
SIDDIPET DISTRICT, TELANGANA STATE**



**PROFILE OF THE
DEPARTMENT OF MICROBIOLOGY**

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GOVERNMENT DEGREE COLLEGE, GAJWEL

ABOUT THE COLLEGE



The Government Degree College, Gajwel was established at Gajwel village in the erstwhile Medak district (now Siddipet District, Telangana State) on 27.08.1997 by the then State Government of Andhra Pradesh in order to provide educational opportunities to the rural youth who had hitherto been denied access to it. Having started with 92 students in the first batch during the Academic Year 1997-98, the institution is able to attract 814 students during the academic year 2018-19. Initially the classes were conducted in the temporary makeshift sheds in the old Revenue Office. later acquired its own campus in the heart of the Gajwel village (now a municipality) with near sufficient infrastructure and ran classes there till October 2017 when the college was shifted to the newly constructed building located in the Education Hub for Boys, in the Sangapur Road, Gajwel. Having affiliated to Osmania University, Hyderabad, the institution academically functions within the broad framework of the instruction and curriculum formulated by the affiliating university. The college adheres to the administrative norms of the State Government. Presently it is offering B.A., B. Com, and B.Sc., with different specializations at the U.G. level and M.A. (Telugu), M.A. (Economics) and M.Com. at the P.G. level. It has 4 NSS and 1 NCC colony which are infusing national fervor and social awareness among their cadets. Being a prominent higher educational institution in the district with more than two glorious decades of existence, the college has been re-accredited with 'B' grade by NAAC in the year 2013 in second cycle of accreditation.

The Government Degree College, Gajwel carved a niche for itself in catering to the higher educational needs of economically, socially and educationally backward area. Further, they always strive with their indomitable spirit to put their best to impart application oriented education & values among the students. There have been constant, untiring and innovative efforts, labour and initiatives in improving the quality of education. The College Gajwel strives to achieve its goals and mainly focuses on creating conducive academic environment for individuals to realize their innate potential. The primary objective of the academic organization is to create knowledgeable, skilled and value-imbibed human beings. To this end, it is committed to provide the students with the facilities-physical, academic, administrative and auxiliary facilities which are conducive for transforming themselves into human resources with knowledge, skills, humane, and societal commitment.



GOVERNMENT DEGREE COLLEGE, GAJWEL

ABOUT THE DEPARTMENT OF MICROBIOLOGY



Establishment:

The Department of Microbiology was established on 26th August 1997 in the academic year 1997-1998 right from the constitution of the Government Degree College in Gajwel town. The Microbiology course was introduced as restructured B.Sc course in biology stream offered with combination of Botany and Chemistry from academic year 1997-1998 in English medium. It is great privilege to the department that Dr. K. Vijayarama Rao, MBBS the then MLA Gajwel, Ex- Minister of state cabinet, Government of Andhra Pradesh served as honorary lecturer in Microbiology for a period of few months.

The Department of Microbiology serving the students from its inception. It is acting as the fountain head of inspiration and one of the linchpin of the college curricular activities. This college, particularly the department of Microbiology molded many generations since it's establishment. The Department of Microbiology playing a key role in the development of college. On the recommendation of the standing committee on vocational educations, University grants commission (UGC) approved proposal of the college and sanctioned Microbiology programme at UG level from 1997.

Composition of Faculty: Dr. K. Vijayarama Rao, MBBS the then MLA of Gajwel was the first faculty member of Microbiology Department. Dr. V. Vasavachary, MBBS Mr. T. Nagendra Kumar, Mr. P. Prabhakar, Dr. Mary Chandravathy, Mr. B. Prabhakar, Ms. G.Roja Margaret, Mr. G.Ramana Reddy successfully acted as faculty members for the Department of Microbiology from 1997 to 2002. Ms. Sharada, Ms. P.Renuka, Ms. Aravinda Lavanya, Dr. B. Venkateshwar, Dr. K. Niranjan Rao acted as faculty members from 2002 to 2004. Mr. R. Venkat Ramchandrar, successfully acted as in-charge from the 2013 to 2018. Presently Dr. N. Harikrishna, appointed as Assistant Professor of Microbiology and made as head of Department from Academic year, 2018 to till date. The department learning and showing its progress continuously in its academic and research activities.

About the faculty:

Dr. N. Harikrishna, Assistant Professor of Microbiology appointed through the APPSC recruitment in 2011. He has more than 11 years of teaching experience in Microbiology at Bachelor Degree level.

He worked as a Lecturer in Microbiology at Nizam College, Hyderabad, from 2008 to 2010. He served as a Lecturer in Microbiology at Government Degree College, Siddipet (A), Siddipet district from December 2011 to June 2018. Presently, He discharging duties at this college from June 2018 to till date.

Chronology of the Department

| S.No | Name of the faculty | Designation | Period |
|-------------|---|---|--|
| 1. | Dr. K. Vijayarama Rao, MBBS | Honorary Lecturer | September 1997 |
| 2. | Dr. V. Vasava Chary, MBBS | Honorary Lecturer | September 1997 |
| 3. | Mr. T. Nagendra Kumar (M.Sc. Zoology) | Part time Lecturer | October 1997 to August 1998 |
| 4. | Mr. P. Prabhakar (M.Sc. Zoology) | Part time Lecturer | September 1998 to January 2000 |
| 5. | Dr. Mary Chandravathy, (M.Sc. Zoology) | First regular Lecturer | 3 rd December 1998 to 8 th December 1999 |
| 6. | Mr. B. Prabhakar (M.Sc. Botany) | Part time Lecturer | October 1999 to March 2000 |
| 7. | Ms. G.Roja Margaret (M.Sc Botany) | Junior Lecturer in Botany as part time Lecturer | June 2000 to March 2001 |
| 8. | Dr. Mary Chandravathy, (M.Sc. Zoology) | Regular Lecturer | 10 th December 2001 to 21 st January 2002 (and on leave) |
| 9. | Mr. G. Ramana Reddy (M.Sc. Microbiology) | Part time Lecturer/ Contract Lecturer | June 2000 to December 2002 with break in service as part time Lecturer/ Contract Lecturer |
| 10. | Ms. Sharada (M.Sc Zoology) | Part time Lecturer | November 2000 |
| 11. | Ms. P. Renuka (M.Sc Zoology) | Part time Lecturer | 9 th May 2001 to 2 nd September 2004 |
| 12. | Ms. AravindaLavanya, (M.Sc. Microbiology) | Part time Lecturer | 11 th November 2002 to 8 th January 2003 |
| 13. | Dr. B. Venkateshwar, (M.Sc., Ph.D in Botany) | Regular Lecturer in Botany | 3 rd September 2004 to 6 th September 2004 |
| 14. | Dr. K. Niranjana Rao (M.Sc., Ph.D in Botany) | Regular Lecturer | 7 th September 2004 to December 2012 |
| 15. | Mr. R.VenkatRamchandar (M.Sc., Microbiology), (M.Tech Biotechnology), (M.Sc Botany) | Regular Lecturer | 1 st January 2013 to June 30 th 2018 |
| 16. | Dr. N. Harikrishna, (M.Sc., Ph.D) | Regular Lecturer | June 30 th 2018 to till date |

TIME TABLE FOR THE ACADEMIC YEAR 2020-2021

| Period / Day | 10.00 to 10.50 AM | 10:50 to 11:40 AM | 11:40 to 12:30 PM | 12:30 to 01:20 PM | 02:00 to 02:50 PM | 02:50 to 03:40 PM | 03.40 to 04:30 |
|-----------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------|
| Monday | III MB | III MB (PR) | | II MB | I MB (PR) | III MB | |
| Tuesday | III MB | | II MB | | II MB | I MB | |
| Wed. day | | I MB | | III MB | | | |
| Thursday | III MB | II MB (PR) | | III MB | | I MB | II MB |
| Friday | | | III MB | II MB | I MB | | |
| Saturday | | III MB | II MB | | III MB (PR) | | |

Workload for the academic year 2020-2021

| Year | Theory | Practical | Total Workload |
|------|-----------------------|-----------|----------------|
| I | 04 | 02 | 06 |
| II | 04 | 02 | 06 |
| III | 06 | 04 | 10 |
| | Total Workload | | 22 |

Academic records The department continuously updates its activity records of various programmes conducted by the faculty. Faculty encourages the students to involve in co- curricular and extra-curricular and social responsibility events.

Department library:

The department also maintains the library facility in the form of reference books and soft copy format in the computer provided to the students. Standard reference books of national and international publications in the areas of microbiology, biochemistry, molecular biology, genetics and bioinformatics are available



DEPARTMENT OF MICROBIOLOGY

GOVERNMENT DEGREE COLLEGE GAJWEL



DEPARTMENT VISION:

- Providing quality education and training to our students, and bringing out the very best in them through the stimulus of scholarly progression and intellectual development.
- Equipping students with excellence in education, abilities and skills to enable them pursue a career of their choice.
- It also includes facilitating high quality teaching, learning and research ambience in the department. We nurture our disciples to aim at global competition for employment and career breakthrough.
- To build intellectual and imaginative minds

DEPARTMENT'S MISSION

- To impart higher education with integral formation which involves academic excellence, that meet the changing needs in discipline of microbiology.
- Our Mission is to be an effective change agent and path building towards the designed vision. Embracing academic & professional inventions, innovations & dynamism is continuous driving force for us.
- Extension of intra and inter departmental service, providing brilliant assistance for institutional assignments and playing linking pin role in administrative endeavor's are other prominent provinces of the department.

DEPARTMENT'S OBJECTIVES:

- Objectives are perhaps the achievable targets and actions involved in accomplishment of the stated vision and mission of any institution or department. Therefore we have penned following as time-tested objectives of our Microbiology department.
- To strengthen and develop nexus with Institutes, Departments, organizations, Industries and personnel of diversified fields and specializations.

- To establish research culture and impart progressive outlook for societal cause.
- To promote holistic development among Students and Staff with human touch.
- To cultivate broader spirit, spectrum, self-employment and entrepreneurial instigation and zeal among the stakeholders of the department.
- To make teaching, learning and innovation more vigorous, ever dynamic and conducive.



GOVERNMENT DEGREE COLLEGE, GAJWEL

B.SC. –MICROBIOLOGY PROGRAMME OUTCOMES



Microbiology is branch of science that deals with the study and understanding of Microorganisms. It has become vital and indispensable since they are connected each and every aspect of human life activities. It has wide applications in multifaceted fields and plays essential role in the sustainable environment. Microbiology focuses on the interaction between microorganisms, animals and human disease, such as infectious diseases. The different branches of Microbiology like medical microbiology, Food microbiology and Immunology also included in the syllabus that enables the stake holders to understand the basic concepts of microorganism in the and its contributions towards development of associated technologies like biotechnology, bioinformatics and so on. With this importance of Microorganisms in the world, Microbiology was introduced in the curriculum of undergraduate course as an independent subject. Curriculum was designed to educate important microbiological disciplines, as well as to promote and inculcate the basic skills and competencies that have enduring value beyond the classroom.

- Stake holders or undergraduate students will gain knowledge and familiarity with unique role of microorganisms and their role in play in recombinant DNA modification technologies.
- Students get information about role of microbe's interaction with the humans.
- Students will gain familiarity with the role of microbes in the context of ecosystem function.
- Students will acquire laboratory safety rules and skills applicable to various labs such as microbiology, clinical methods, reporting of observations and analysis of them.
- By learning Microbiology the students have multiple opportunities to get jobs in various pathological labs, industries and research laboratories, pollution control board jobs as well teaching field.

TELANGANA STATE COUNCIL OF HIGHER EDUCATION, TELANGANA
OSMANIA UNIVERSITY
PROPOSED SCHEME OF CHOICE BASED CREDIT SYSTEM (CBCS)
B.SC MICROBIOLOGY
W.E. F FROM ACADEMIC YEAR 2020-21

| SEMESTER-6 | | | | |
|------------------------|---|------------|-----|---------|
| Code | CourseTitle | CourseType | HPW | Credits |
| FIRSTYEAR-SEMESTER-1 | | | | |
| BS | AEC-1 | | | 2 |
| BS | English | | | 4 |
| BS | SecondLanguage | | | 4 |
| BS | GeneralMicrobiology | DSC-1A | 4+2 | 5 |
| BS | Optional-II | | | 5 |
| BS | Optional-III | | | 5 |
| SEMESTER-2 | | | | |
| BS | AEC-2 | | | 2 |
| BS | English | | | 4 |
| BS | SecondLanguage | | | 4 |
| BS | MicrobialDiversity | DSC-1B | 4+2 | 5 |
| BS | Optional-II | | | 5 |
| BS | Optional-III | | | 5 |
| SECOND YEAR-SEMESTER-3 | | | | |
| BS | Haematology | SEC-1 | 2 | 2 |
| BS | UGCGiven | SEC-2 | | 2 |
| BS | English | | | 3 |
| BS | SecondLanguage | | | 3 |
| BS | Food&EnvironmentalMicrobiology | DSC-1C | 4+2 | 5 |
| BS | Optional-II | | | 5 |
| BS | Optional-III | | | 5 |
| SEMESTER-4 | | | | |
| BS | MushroomCultivation | SEC-3 | 2 | 2 |
| | UGCGiven | SEC-4 | | 2 |
| | English | | | 3 |
| BS | SecondLanguage | | | 3 |
| BS | MedicalMicrobiology&Immunology | DSC-10 | 4+2 | 5 |
| BS | Optional-II | | | 5 |
| BS | Optional-III | | | 5 |
| THIRDYEAR-SEMESTER-5 | | | | |
| | English | | | 3 |
| | Secondlanguage | | | 3 |
| BS | MicrobiologyandHumanHealth | GE | 4 | 4 |
| | 1A.MolecularBiology&Microbial Geneticsor | | | |
| BS | 1B.MicrobialOmics | DSE-1 | 3+2 | 5 |
| BS | Optional-II | | | 5 |
| BS | Optional-III | | | 5 |

| | | | | |
|-------|--|-------|-----|-----|
| BS | English | | | 3 |
| BS | Second language | | | 3 |
| BS | 2.A Industrial Microbiology 2.B Pharmaceutical Microbiology | DSE-2 | 4+2 | 5 |
| BS | PROJECTWORK/Applied Microbiology | | 3+2 | 4 |
| BS | Optional-11-A/B/C | | | 5 |
| BS | Optional-111-A/B/C | | | 5 |
| Total | | | | 150 |

Scheme of examination and evaluation pattern

Theory examination evaluation pattern

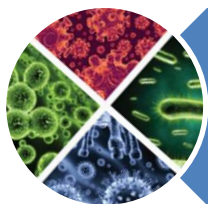
| Sem | Max. marks | External exam marks | Internal examination marks | | | |
|------------|------------|---------------------|----------------------------|--------------------|-------------------|--------------|
| | | | 30 | | | |
| | | | Internal –I | Internal-II | Assignment | Total |
| I | 100 | 80 | 15 | 15 | 05 | 100 |
| II | 100 | 80 | 15 | 15 | 05 | 100 |
| III | 100 | 80 | 15 | 15 | 05 | 100 |
| IV | 100 | 80 | 15 | 15 | 05 | 100 |
| V | 100 | 80 | 15 | 15 | 05 | 100 |
| VI | 100 | 80 | 15 | 15 | 05 | 100 |

*Average of two internal is considered

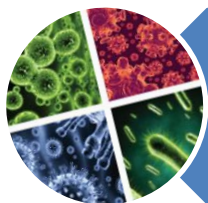
Practical examination evaluation pattern

| S. No | Semester | Marks allotted |
|-------|--|----------------|
| 1 | I (Semester end practical examination) | 50 |
| 2 | II (Semester end practical examination) | 50 |
| 3 | III (Semester end practical examination) | 50 |
| 4 | IV (Semester end practical examination) | 50 |
| 5 | V (Year-end practical examination) | 100 |
| 6 | VI (year-end practical examination) | 100 |

COURSES OFFERED:



B. Sc MBC
(Microbiology,
Botany, Chemistry)



B. Sc MZC
(Microbiology,
Zoology Chemistry,
w.e.f., 2018)

STUDENT ENROLMENT

| Academic year | Total allotted strength | No of enrolment |
|----------------------|--------------------------------|------------------------|
| 2014-15 | 30 | |
| 2015-16 | 30 | |
| 2016-17 | 30 | 24 |
| 2017-18 | 30 | 24 |
| 2018-19 | 30 | 23 |
| 2019-20 | 30 | 07 |
| 2020-21 | 30 | 24 |

ECONOMIC BACKGROUND OF STUDENTS

About 95% of the students of the department belongs to economically backward classes. Majority of them are depending on post metric scholarships provided by the social welfare department, Government of Telangana. Majority of the students are from rural areas of economically backward region across the Medak and surrounding districts.

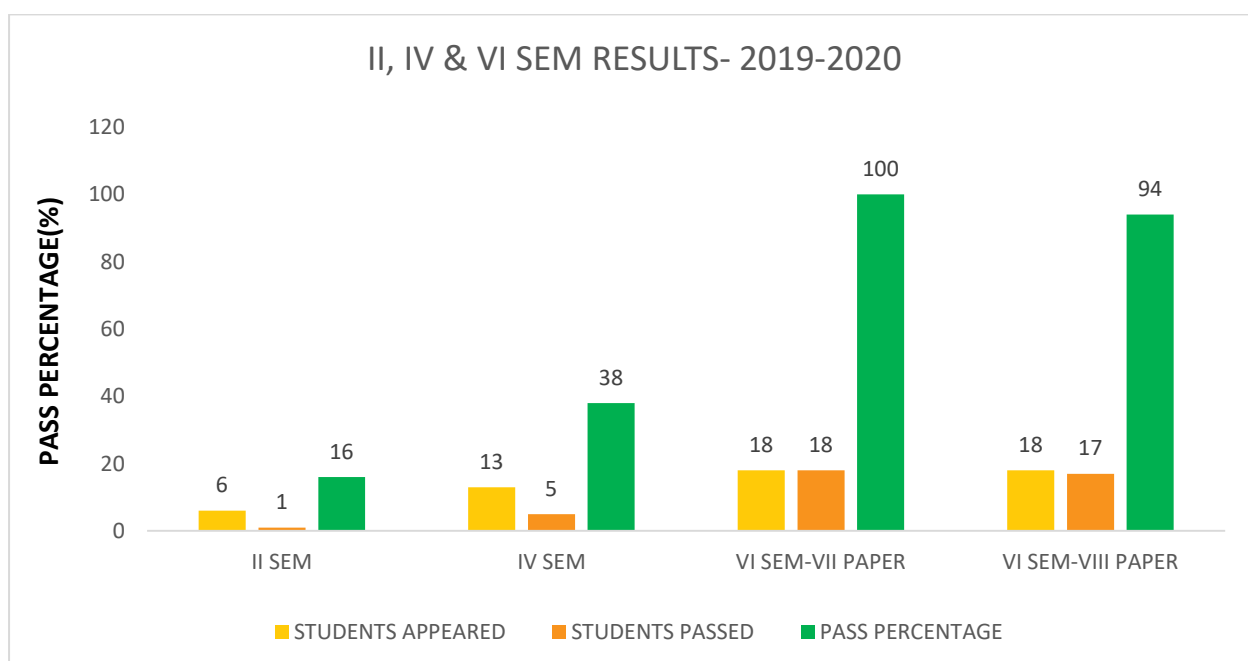
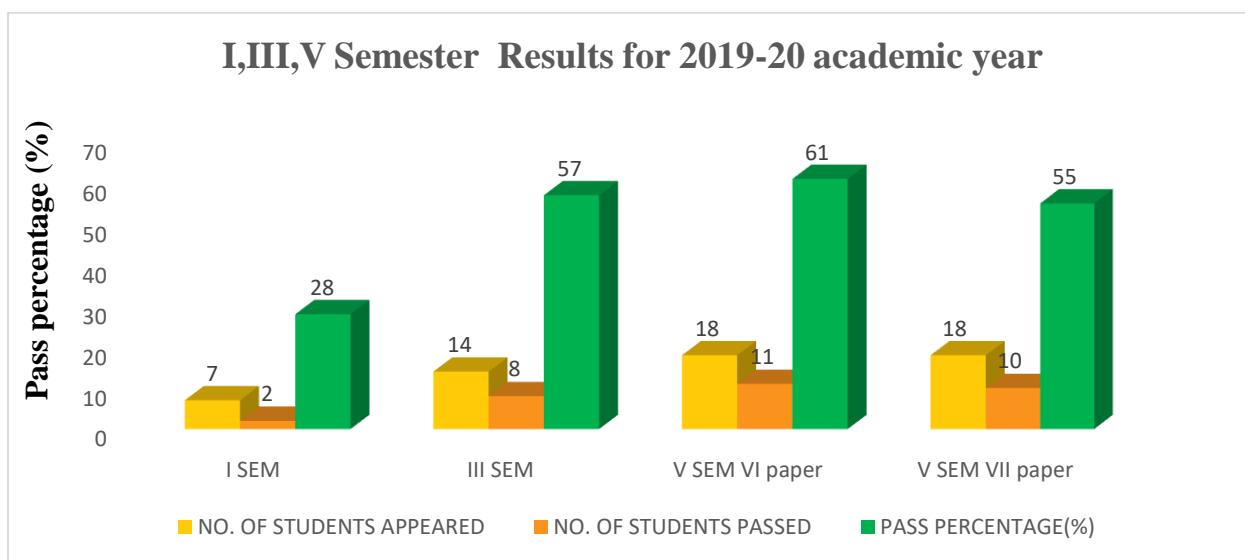


GOVERNMENT DEGREE COLLEGE, GAJWEL

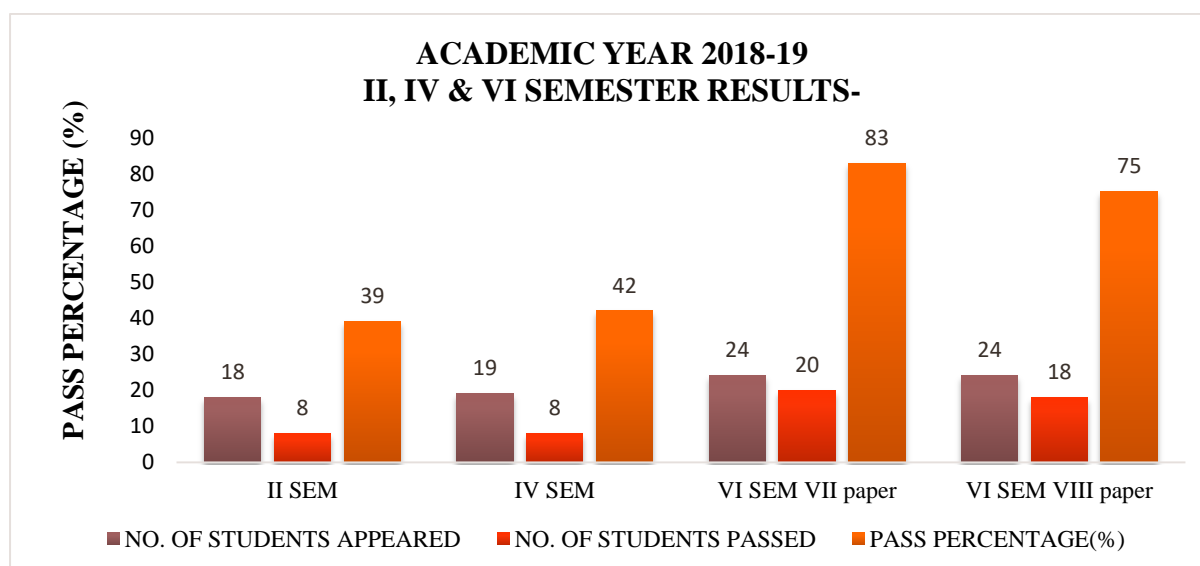
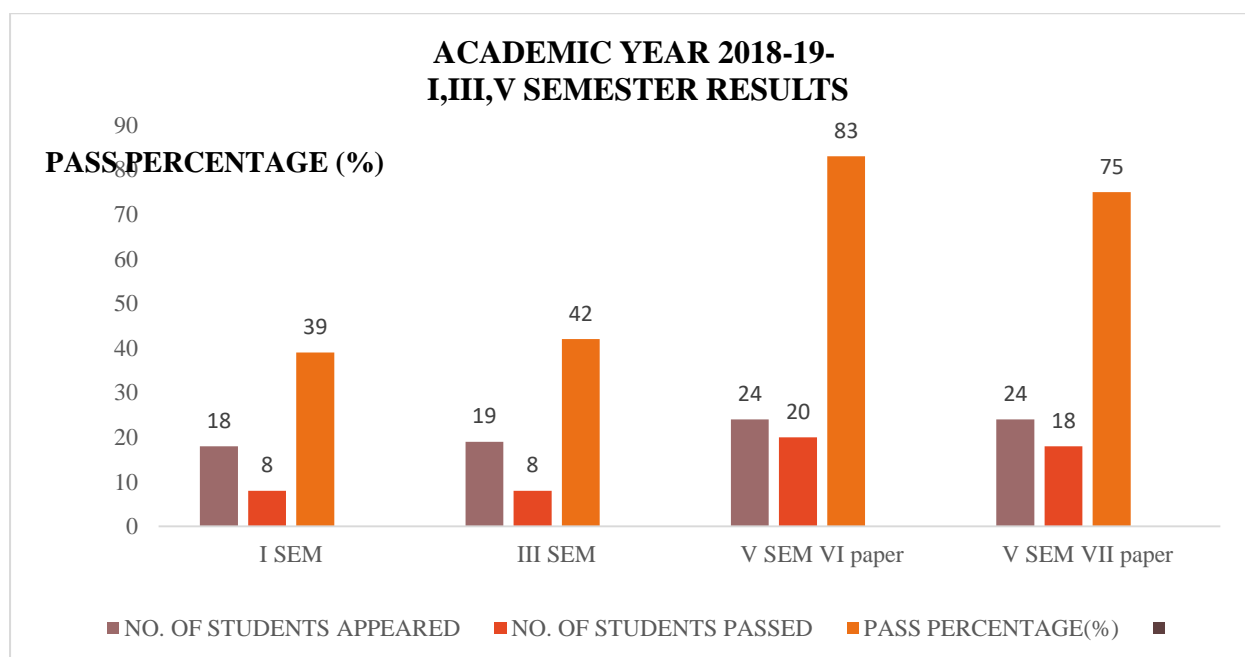
SUBJECT: MICROBIOLOGY

ACADEMIC YEAR 2019-2020

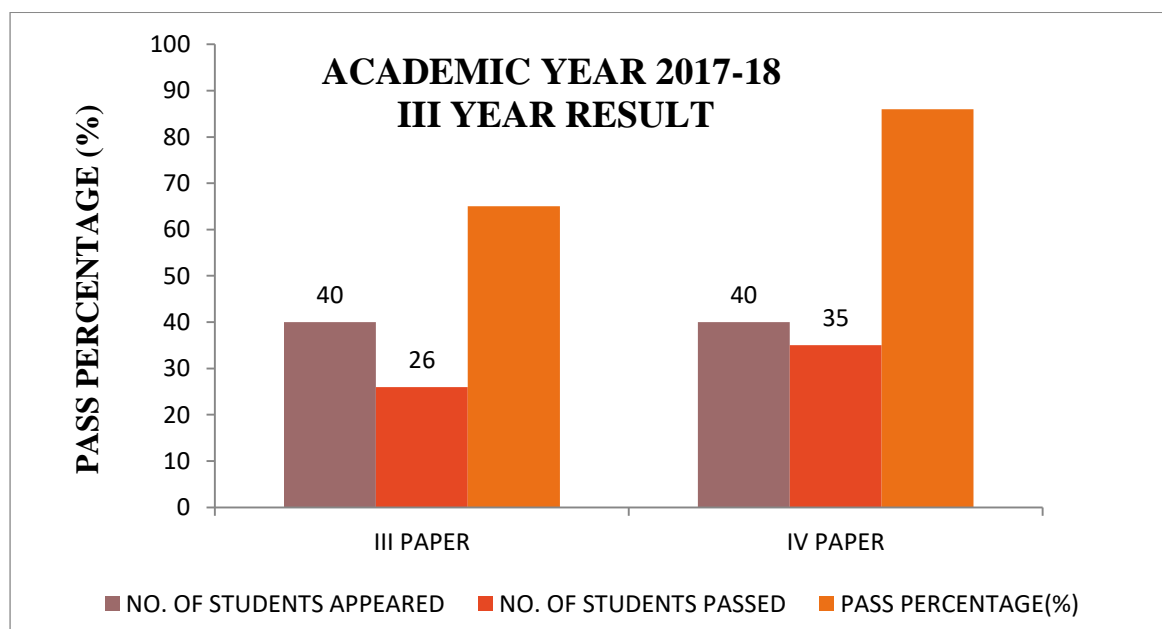
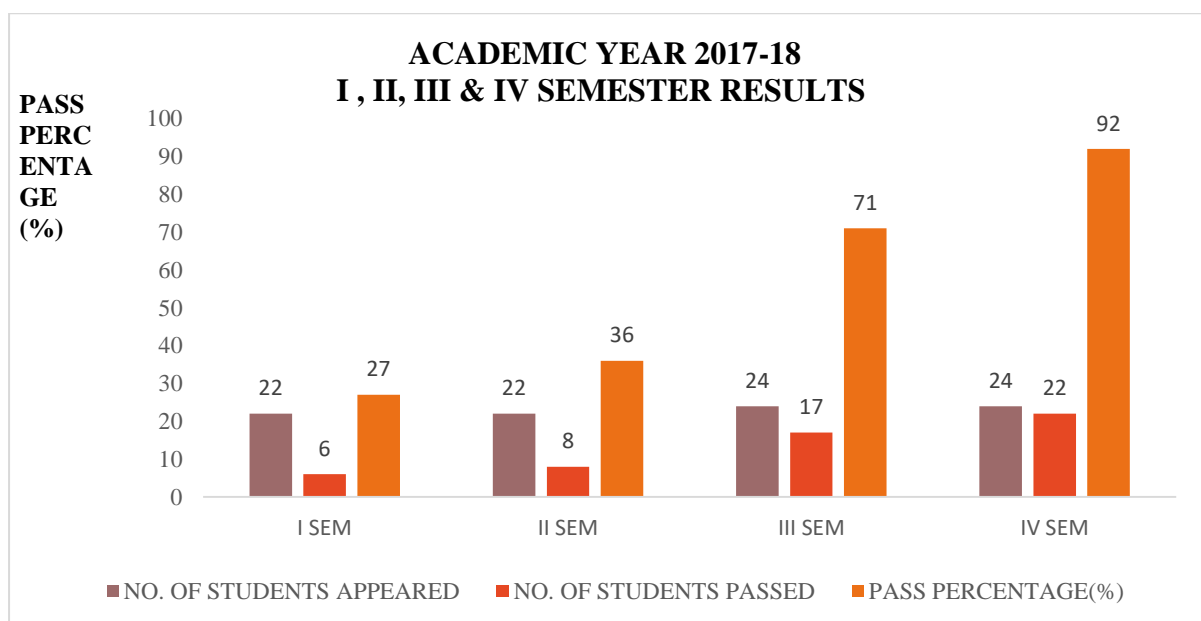
RESULT ANALYSIS OF I, III, V SEMESTER



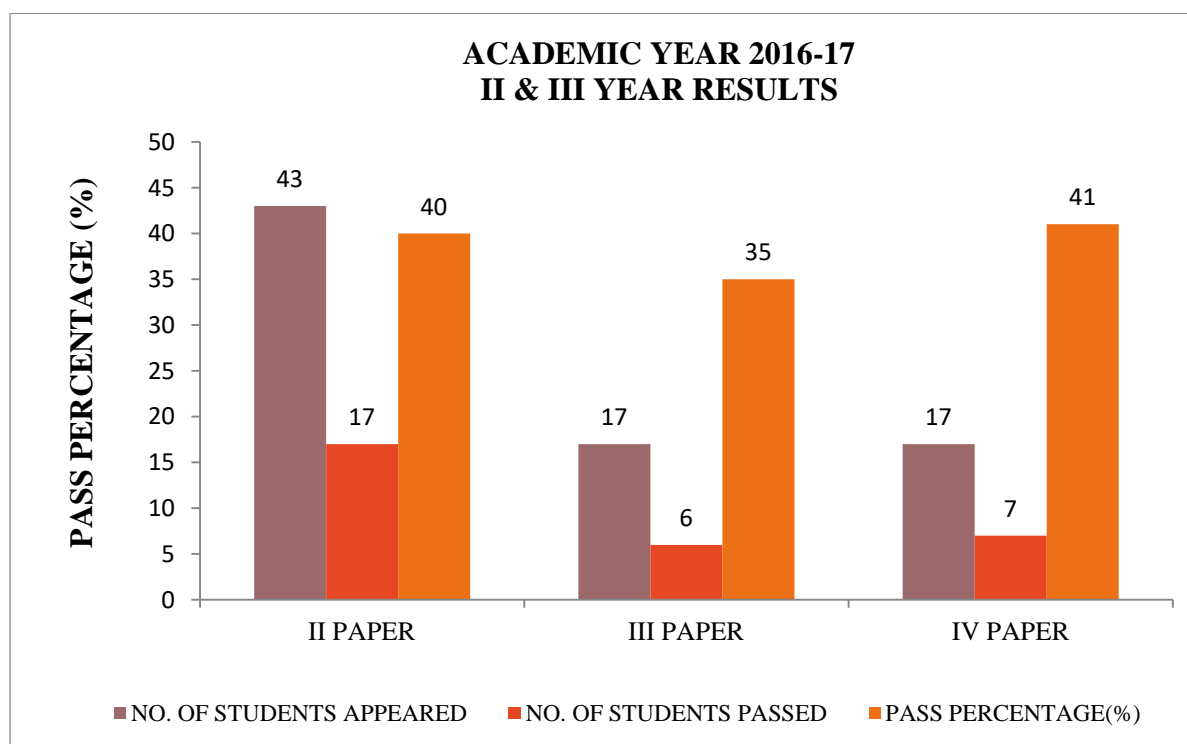
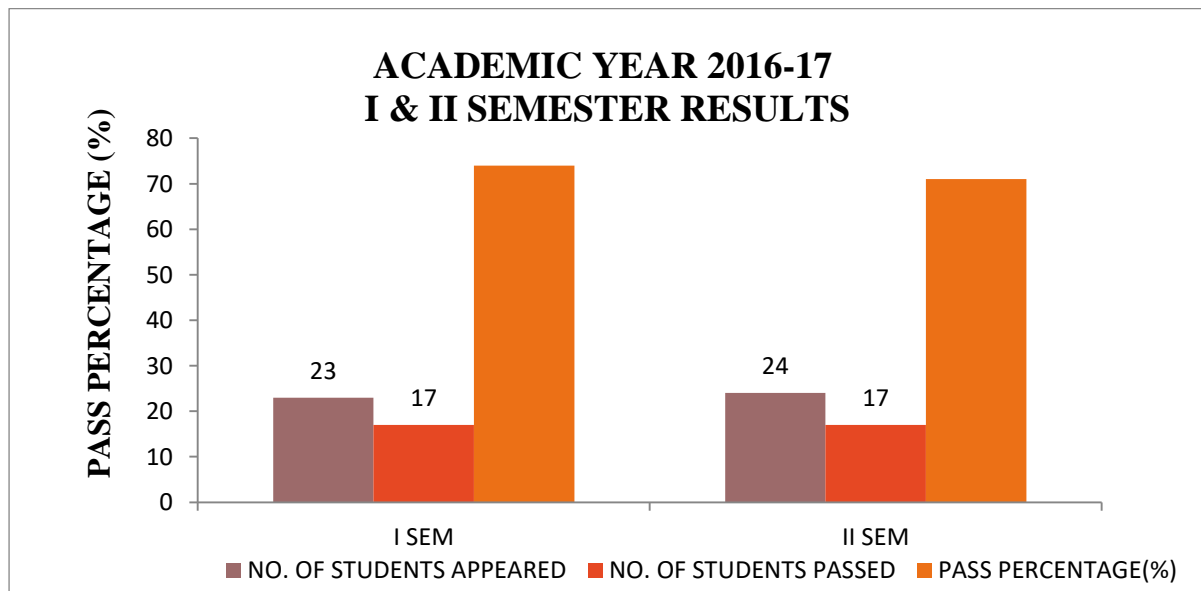
GOVERNMENT DEGREE COLLEGE, GAJWEL
DEPARTMENT OF MICROBIOLOGY
RESULT ANALYSIS FOR THE ACADEMIC YEAR 2018-19



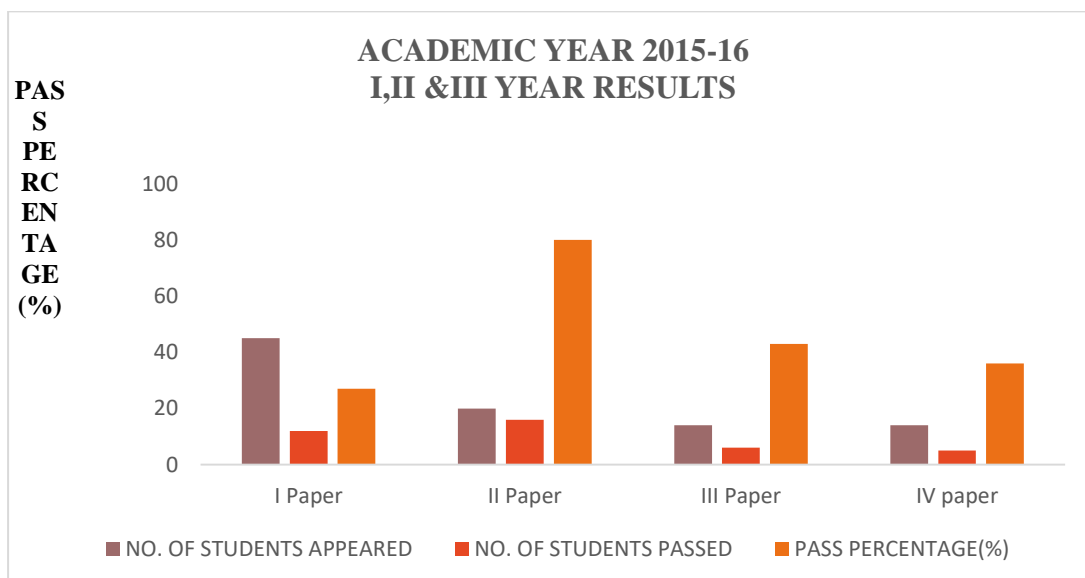
GOVERNMENT DEGREE COLLEGE, GAJWEL
DEPARTMENT OF MICROBIOLOGY
RESULT ANALYSIS FOR THE ACADEMIC YEAR 2017-18



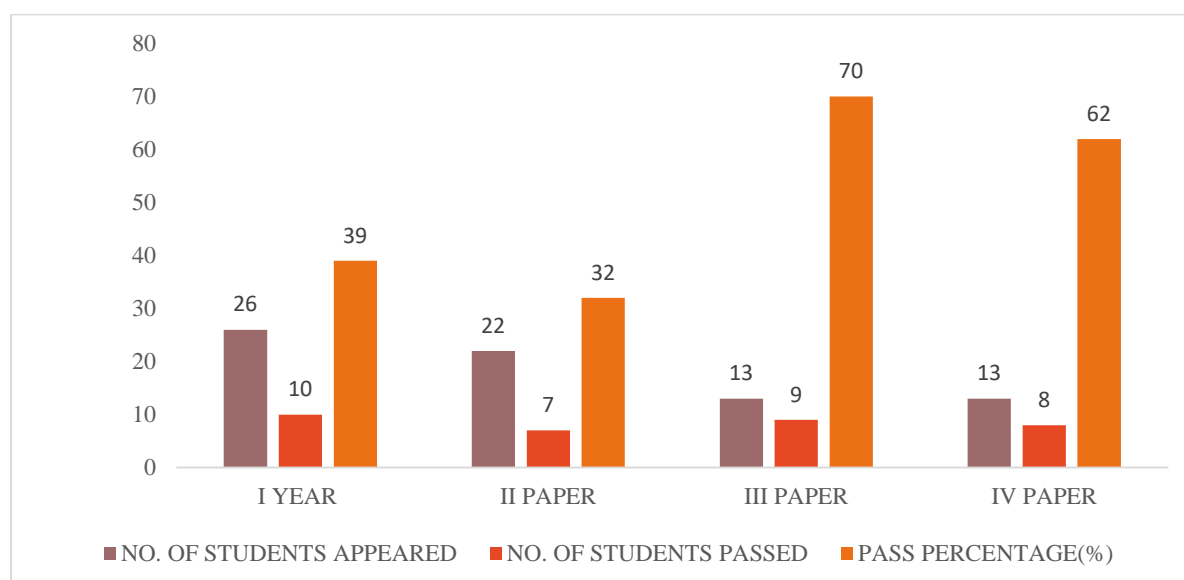
GOVERNMENT DEGREE COLLEGE, GAJWEL
DEPARTMENT OF MICROBIOLOGY
RESULT ANALYSIS FOR THE ACADEMIC YEAR 2016-17



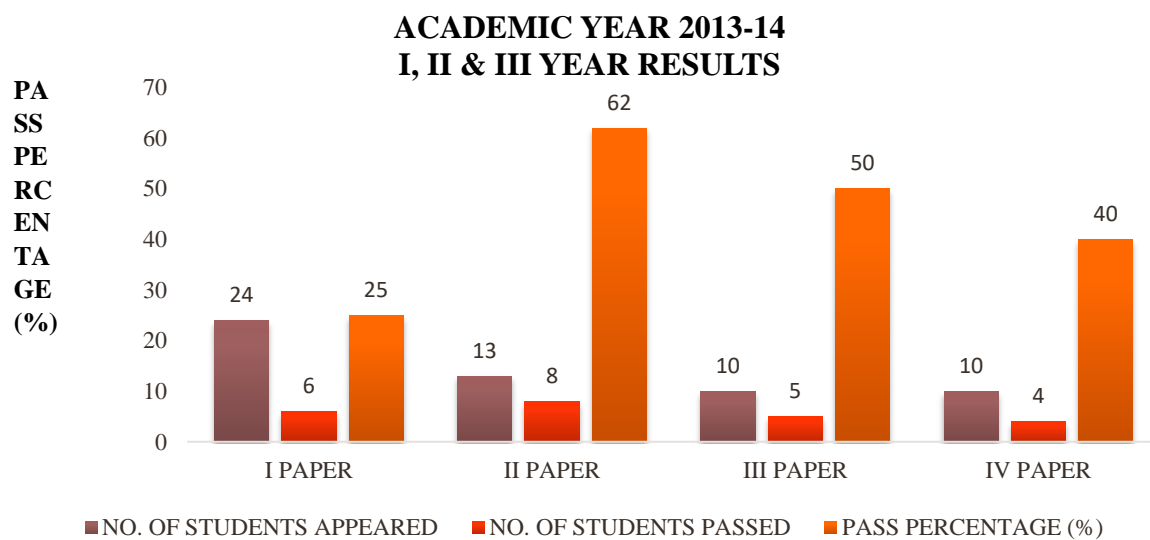
GOVERNMENT DEGREE COLLEGE, GAJWEL
DEPARTMENT OF MICROBIOLOGY
RESULT ANALYSIS FOR THE ACADEMIC YEAR 2015-16



GOVERNMENT DEGREE COLLEGE, GAJWEL
DEPARTMENT OF MICROBIOLOGY
RESULT ANALYSIS FOR THE ACADEMIC YEAR 2014-15



GOVERNMENT DEGREE COLLEGE, GAJWEL
DEPARTMENT OF MICROBIOLOGY
RESULT ANALYSIS FOR THE ACADEMIC YEAR 2013-14



STUDENT CENTRIC ACTIVITIES

CURRICULAR ASPECTS

The department of Microbiology is following the syllabus framed by the affiliated University, Osmania University, Hyderabad. Up to academic year 2015- 2016 year wise scheme was adopted. From academic year 2016-17 with the instructions of UGC and Higher education council Telangana, Choice Based Credit System (CBCS) was introduced in the curriculum.the syllabus is regularly revised and updated by the affiliated university. Latest revision of syllabi has been conducted in the academic year 2019-20. As part the newly established CBCS system, faculty also teaching the Skill Enhancement Course (SEC), Generic Elective in addition to the regular courses.

TEACHING, LEARNING EVALUATION:

- The department of Microbiology prepares its semester wise curriculum plan according to the periods available. Curriculum plan was prepared, month wise according to the syllabi at the beginning of the semester at the extent of working days available.
- Faculty regularly maintain teaching diaries, synopsis and teaching notes for the beginning of the semester.
- The Department also conducts the remedial classes for the slow learners to improve their academic standards.
- At the intermediate level students lacks knowledge about Microbiology as is not present in their curriculum. Hence, faculty also arranges bridge course classes for the first year at the beginning of Semester I to create awareness about the subject.
- As per of CBCS system Department conducts the Internal assessment test twice a semester according the instructions given by the University.
- The department also uses other teaching tools like charts, diagrams, models and Information and communication tools (ICT) like Power point presentations, youtube classes, online classes and animated videos for effective communication and better understanding of the subject by the students.
- The faculty also involves in the presentation of live lessons through MANA TV/ TSAT channel.
- To impart quality education, the faculty of department strives continuously for acquiring and up gradation of recent technologies introduced in the respective programmes. These upgraded matter is shared among the students by direct interacting or via online platforms like Whatsapp.

- Students also encouraged to carryout student study projects to get hands on experience of practicals and acquire the skills. This may promote the students towards research activities.

TEACHING METHODOLOGY

- Class room teaching learning
- Class room student seminar
- Student Assignments
- Internal assessment
- Elocution
- Quiz competitions
- Poster presentation competitions
- Invited lectures
- Educational tours

LEARNING/KNOWLEDGE RESOURCES

The Department of Microbiology provides the students with multiple learning resources. As the new technologies are emerging, they are shared among the students via different platforms. The department adapts newly coming learning resources or updated technology for the betterment of student knowledge and easy understanding. Microbiology teachers provide a variety of learning experiences, including individual and collaborative learning. The Department providing the following resources for the students.

| S. No | Learning resources | Available resources |
|--------------|----------------------------------|----------------------------|
| 1 | Departmental library | 40 books available |
| 2 | Computer with internet facility | 02 |
| 3 | Printer | 01 |
| 4 | No of laboratory rooms | 02 |
| 5 | No of class rooms available | 03 |
| 6 | Teaching aids, | 01 |
| 7 | You tube channel | 01 |
| 8 | Whatsapp groups | 03 |
| 9 | Online animated videos | |
| 10 | Online – Virtual labs | |
| 11 | Department displays notice board | |
| 12 | Teaching notes | |

LIST OF EQUIPMENT AVAILABLE AT THE DEPARTMENT

| S.No. | Name of the article | Quantity | Remarks |
|-------|---------------------------------|----------|--------------|
| 1. | Laminar Air flow | 01 | Working |
| 2. | Hot air oven | 01 | Under repair |
| 3. | Incubator | 01 | Working |
| 4. | Orbital shaker | 01 | Working |
| 5. | Shaking Water bath | 01 | Under repair |
| 6. | Colony counter | 01 | Working |
| 7. | Digital weighing balance | 02 | Working |
| 8. | Colorimeter | 04 | Working |
| 9. | Centrifuge | 02 | Working |
| 10. | Chromatography Chamber | 01 | Working |
| 11. | Gel electrophoresis unit | 01 | Working |
| 12. | Haemocytometer | 02 | Working |
| 13. | Glass distillation Unit | 01 | Working |
| 14. | Wall Distillation water unit | 01 | Working |
| 15. | Medical Microscopes | 05 | Working |
| 16. | Binocular Microscope | 03 | Working |
| 17. | Cold Centrifuge | 01 | Working |
| 18. | Micropipettes | 02 | Working |
| 19. | Autoclave | 02 | Working |
| 20. | Portable Autoclave | 01 | Working |
| 21. | Computer with internet facility | 01 | Working |
| 22. | Printer | 01 | Working |
| 23. | Shaker Incubator | 01 | Working |
| 24. | LCD projector | 01 | Working |
| 25. | Inoculation Chamber | 01 | Working |
| 26. | Water Deioniser | 01 | Under repair |
| 27. | Stop clock | 01 | Working |
| 28. | Spectrophoto meter | 01 | Working |

| | | | |
|-----|---------------------------------|----|--------------|
| 29. | Analytical balance | | Working |
| 30. | Seitz filter | 01 | Under repair |
| 31. | Vortex mixer | 01 | Working |
| 32. | Microwave oven | 01 | Working |
| 33. | Inoculation loops | 05 | Working |
| 34. | -20 ⁰ C refrigerator | 01 | Working |
| 35. | Water bath | 02 | Working |
| 36. | Glass ware | | Working |

CO-CURRICULAR ACTIVITIES OF THE DEPARTMENT

CLASS ROOM SEMINARS

The department regularly conduct the class room seminars. The students also involves in the seminar actively.



Yadagiri 2nd year M.B.C student presenting "Three domain Classification of living organisms"



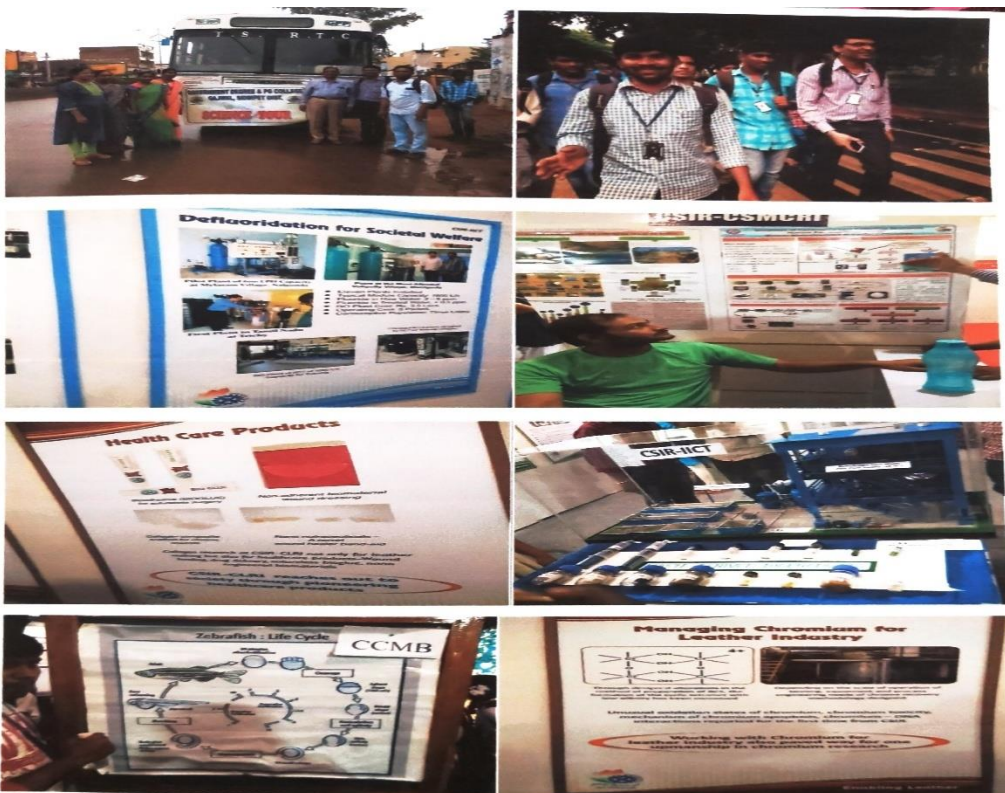


EDUCATIONAL TOURS

The department regularly organizes the educational tours for acquire knowledge of new technology and to gain interest towards the research. The department students has visited the CCMB couple time on its open day on 26 September , 2017, 2019. Students also visited the CFRD research centre OU, Hyderabad.



VISIT OF STUDENTS OF MICROBIOLOGY TO SCIENCE EXHIBITION AT HUSAIN JAHEER SCHOOL GROUNDS ORGANIZED BY CSIR LABORATORIES ON THE OCCASION OF CSIR PLATINUM JUBILEE CELEBRATIONS ON SEPTEMBER 6th 2017.



VISIT OF STUDENTS OF MICROBIOLOGY TO SCIENCE EXHIBITION AT HUSAIN JAHEER SCHOOL GROUNDS ORGANIZED BY CSIR LABORATORIES ON THE OCCASION OF CSIR PLATINUM JUBILEE CELEBRATIONS ON SEPTEMBER 6th 2017.



Students along with faculty at CCMB open day on 26. 09.2019



Zebra fish model



Models and live presentation demonstration by research scholars

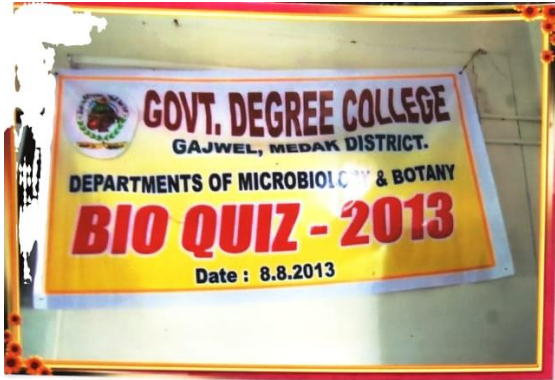


Anil, Research Scholar demonstrating about Electrophoresis unit at CFRD OU, Hyderabad on 26.09.2019



QUIZ PROGRAMMES

The department regularly conducts the quiz programme to the students of Microbiology. On 08.08.2013 the department of Microbiology and botany conducted the district level BIO QUIZ competition in the college. A total of 13 teams from various colleges have participated in the programme. To the winners cash prize award also distributed (first prize –Rs. 2000/-, Second Prize- 15000/- and Third Prize – 1000/-).



On 8-8-2013 District level BioQuiz in Mana TV hall



Sri R. Venkat Ramchandrar
Convenor for BioQuiz along
with Sri Aziz (Vice principal),
Sri Malik (NAAC Cooridinatr)
and Smt Jahnavi (Lect ures
in botany).



సాక్షి

ఉత్సాహంగా బయో క్విజ్

• గజ్వేల్ డిగ్రీ కళాశాల జట్టుకు ప్రథమ బహుమతి

గజ్వేల్ నగరం, సెప్టెంబర్ 10

పట్టణంలోని ప్రభుత్వ డిగ్రీ కళాశాల ఆవరణలో నిర్వహించిన 'బయో క్విజ్-2013' ఉత్సాహంగా కొనసాగింది. పాల్గొన్న కలెక్షన్లకు చెందిన 13 జట్లు పాల్గొన్నాయి. కార్యక్రమంలో గజ్వేల్ ప్రభుత్వ డిగ్రీ కళాశాల ప్రధానాధికారి ఆర్.కె. కమార్ ప్రారంభించారు. విద్యార్థులకు బహుమతి పంపిణీ అవకాశం సులభమైంది.



బయో క్విజ్లో ప్రతినిధులు, ప్రతినిధి అధికారి కమార్

ఈ 'బయో క్విజ్' పోటీలను నిర్వహించిన విద్యార్థులు విజ్ఞానంలో క్విజ్ పోటీలకు బయోడిజిటల్ గ్రాండ్లో కార్యక్రమం

నిర్వహించారు. బయోడిజిటల్ విజ్ఞానంలో క్విజ్ పోటీలకు బయోడిజిటల్ గ్రాండ్లో కార్యక్రమం

సంబంధించి విజ్ఞాన ప్రదర్శన, పాఠ్య గ్రంథాల పోటీలు, అంబేద్కర్ అవార్డు అంబేద్కర్ క్విజ్ -2013 పోటీల్లో ప్రథమ స్థానం గజ్వేల్ డిగ్రీ కళాశాల జట్టు, ద్వితీయ స్థానం గజ్వేల్ మహిళా డిగ్రీ కళాశాల జట్టు, తృతీయ స్థానం కే.ఎస్.ఎస్. డిగ్రీ కళాశాల జట్టు సాధించాయి. ఇందులో ఉత్తమ ప్రతిభను తెలిపిన బయో క్విజ్ అధిపతి బయోడిజిటల్ గ్రాండ్లో, బయో క్విజ్ అధిపతి బయోడిజిటల్ గ్రాండ్లో నిర్వహించారు. కార్యక్రమం నిర్వహించిన గజ్వేల్ డిగ్రీ కళాశాల అధ్యాపకులు మోహన్, రమేష్ పాల్గొన్నారు.

The department also conducted quiz programmes at department level also. Apart from the quiz programme the department also organizes elocution competitions and group discussions



| | | |
|--------|---|---------|
| Team A | — | 6 Marks |
| Team B | — | 5 Marks |
| Team C | — | 4 Marks |
| Team D | — | 4 Marks |
| Team E | — | 5 Marks |
| Team F | — | 3 Marks |

Quiz Master
R.V. RAMCHANDAR 9 Marks

Number of sounds in — 68 sounds

Quiz
Date : 25-10-2015 .

Friday

Time 2.20 — 3.30pm



2018-2019

Name of the Competition : Quiz
 Date : 5/11/18
 Group & Class : MBc III-V
 Topic : Immunology
 Signature of the Participants :

| S.No. | Roll No. | Name of the Student | Signature |
|-------|----------------------|---------------------|--------------------|
| | <u>Group-I</u> | | |
| | <u>(Rizobia)</u> | | |
| | 1. | <u>T. Chandana</u> | <u>T. Chandana</u> |
| | 2 | <u>Karishma</u> | <u>Karishma</u> |
| | 3 | <u>Bhanuprasad</u> | |
| | 4 | <u>Saritha</u> | <u>Saritha</u> |
| | 5 | | |
| | <u>Group-II</u> | | |
| | <u>(clock)</u> | | |
| | 1 | <u>Navya</u> | <u>Navya</u> |
| | 2 | <u>S. Shekar</u> | <u>Shekar</u> |
| | 3 | <u>Rachana</u> | <u>Rachana</u> |
| | 4 | <u>Sandhya</u> | |
| | 5 | <u>N. Vaxshini</u> | <u>Vaxshini</u> |
| | 6 | <u>M. Raja</u> | <u>Raja</u> |
| | <u>Group-III</u> | | |
| | <u>Gram Bacteria</u> | <u>Akhila</u> | <u>Akhila</u> |
| | | <u>Abhinika</u> | |
| | | <u>Ravali</u> | <u>Ravi</u> |
| | | <u>Aruna</u> | <u>Aruna</u> |

SEMINARS AND WORKSHOPS ORGANIZED BY DEPARTMENT

Department of organized two workshops and one national seminar. Online workshop on **“Emerging applications of ICT Tools in Higher education”** conducted by Department of Microbiology on 11-13 June 2020. A total of 450 participants were attended the programme.

A Two Day National Seminar on “**FOOD SAFETY,QUALITY AND POLICY**”was organized by Department of Microbiology, Government Degree &PG College, Gajwel on 28th and 29th of June 2018. A total of more than 50 participants were attended and presented their research papers.

In collaboration with the “Primer biotech research centre” department conducted Three day hands on experience workshop on “**Molecular biology techniques**” from 14- 16, November 2015. A total of 36 student members were attended



**Three-Day National Level
Online Workshop
on**



**"EMERGING APPLICATIONS OF ICT TOOLS IN
HIGHER EDUCATION"**

Organized by

**Department of Microbiology,
Government Degree College, Gajwel,
Siddipet District, Telangana, India**
(Re-Accredited with 'B' Grade by the NAAC & ISO 9001:2015 certified college)

Registration link
https://docs.google.com/forms/d/e/1FAIpQLSd-w95ZGQdGd-NT744690HfGQCLw4ZeeU6e-n7MR6-g/viewform?usp=sf_link

Schedule
 Day 1: Effective usage of PPT
 Day 2: Online tools for teaching
 Day 3: Virtual labs for teaching

Dates: 11-13 JUNE 2020
Time : 11:00 AM - 12:30 PM

Host
Dr. N. Harikrishna
 Asst. Prof. of Microbiology,
 Govt. Degree College, Gajwel

Moderator
Sri. Kumara Swamy. D
 Asst. Prof. of English
 Govt. Degree College, Gajwel

Chairman
Dr. A. Srinivas Reddy,
 Principal
 Govt. Degree College, Gajwel

Invited by
**Principal and Staff, Government Degree College, Gajwel,
 Siddipet District, Telangana, India**

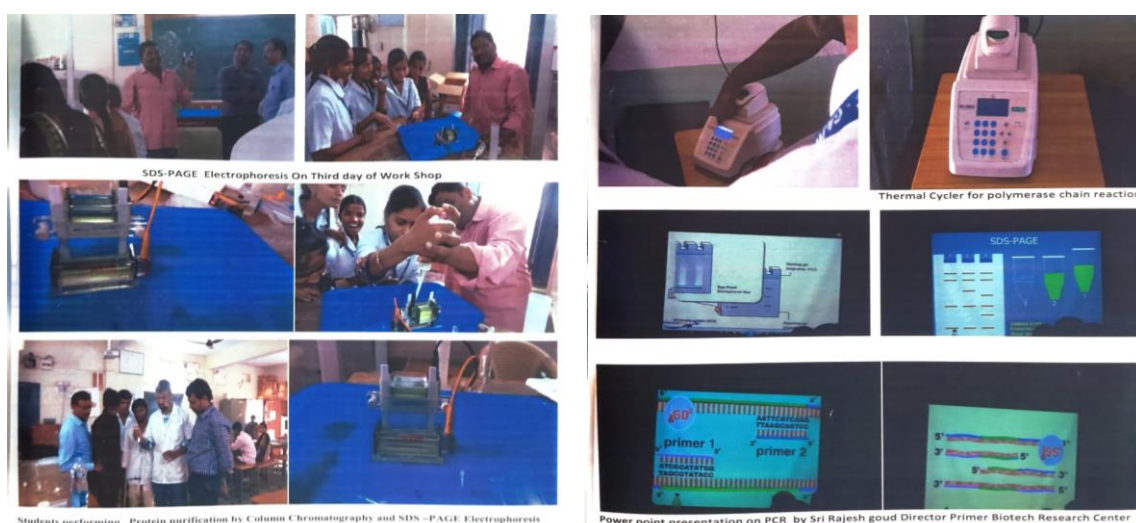
Contact: Dr. N Harikrishna, Mobile No: 9966222110, 9182779446, e-mail: harinagamalli@gmail.com

Note:
 1. Live class session link will be provided before the commencement of class.
 2. Participants also may watch the session through updated videos in the provided platform
 3. E- certificate will be provided after successful completion of workshop

Glimps of National seminar on Emerging applications of ICT Tools in Higher education conducted by Department of Microbiology on 11-13 June 2020.



A Two Day National Seminar on “**FOOD SAFETY, QUALITY AND POLICY**” was organized by Department of Microbiology, Government Degree & PG College, Gajwel on 28th and 29th of June 2018.





*. Vemsani Venkateswar Rao, Principal addressing
augural session



Sri R.V.Ramchandrar Convener of workshop explaining the Three day Schedule of workshop



డిగ్రీ కళాశాలలో
మైక్రోబయాలజీపై వర్క్ షాప్

గొడవైనది. ప్రభుత్వ డ్రిగ్ కళాకారి వీరివారం మూడో రోజు సైన్లో బయటలో వచ్చి పాపం కళాకారి సైన్లోకి వెళ్లడంతో ప్రారంభించారు. మొదట్లో బయటలో డిస్కీతో ఆట ఆంపింది ఈ వర్క్ షాపును మ్యూజ్ నూకారంతో నిర్వహించడం జరుగుతుంది. వర్క్ షాపును కాలనీల నుకూలాన్ని హైదరాబాద్లోని వెండి సైమర్ బయట లోని వీల్స్ అండ్ అంబిషన్లది. ఈ వర్క్ షాపులో 40మంది మ్యూజియన్ పాల్గొన్నారు. కవిత్వం, కవిత్వం, రిథమ్, పర్సన్ల చరిత్ర, పాపం, బ్రాడ్వేమలు వెంటర్లవారంవరే, రమ్మ డిజైన్ల కవిత్వంలున్నారు.



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POSTER PRESENTATION COMPETITIONS

Inter college Poster presentation competition on “Trends in Biological Science” was organized by Department of Microbiology, Government Degree College, Gajwel on 07/02/2019. A total of 40 poster presented by the 80 students.

ఆకట్టుకున్న బయోసైన్స్ ఎగ్జిబిషన్

గజ్వేల్ రూరల్: బయోసైన్స్ ఆవిష్కరణలో ఆలోచనాత్మకత, పరిశోధనా దృష్టి విద్యార్థులకు ఉండాలని, దీనివల్ల విద్యార్థులు ఆయా అంశాల్లో ఆసక్తిని పెంచుకుని డిగ్రీ కోర్సాల ప్రాధికారాన్ని డాక్టర్ శ్రీనివాస్ రెడ్డి అన్నారు. గురువారం గజ్వేల్ బాలుర ఎడ్యుకేషనల్ హబ్లోని డిగ్రీ కోర్సాలలో సూక్ష్మ జీవశాస్త్ర విభాగం, జీవశాస్త్రాలు సమకాలీన దోరణులు అనే అంశపై వార్షికోత్సవ ప్రదర్శన పోటీలు నిర్వహించారు. ప్రతిభ కనబరిచిన విద్యార్థులకు బహుమతులను అందజేశారు. ఈ సందర్భంగా కోర్సాల ప్రాధికార విద్యార్థుల సర్వంగా గీత వికాసానికి విద్యనైత్య కార్యక్రమాలు నిర్వహించడం జరుగుతుందన్నారు. కాగా ఈ పోటీల్లో సిద్ధిపేట, గజ్వేల్, ఇతర ప్రాంతాల కోర్సాల విద్యార్థులు పాల్గొన్నారు. కార్యక్రమంలో మహాశివ డిగ్రీ కోర్సాల



విద్యార్థులు ప్రదర్శించిన వార్షికోత్సవ పరిశోధనా ప్రాధికార శ్రీనివాస్ రెడ్డి

ప్రొఫెసర్ డాక్టర్ ఉమాశివారెడ్డి, హరికృష్ణ, రత్నారావు తదితరులు పాల్గొన్నారు.

విద్యార్థి దశ నుంచే పరిశోధనా దృక్పథాన్ని అలవర్చుకోవాలి

గజ్వేల్ ప్రభుత్వ డిగ్రీ కోర్సాల
ప్రొఫెసర్ శ్రీనివాస్ రెడ్డి, ఉమాశివ

గజ్వేల్, ఫిబ్రవరి 7: విద్యార్థి దశ నుంచే పరిశోధనా దృక్పథాన్ని అలవర్చుకోవాలని గజ్వేల్ ప్రభుత్వ డిగ్రీ కోర్సాల ప్రొఫెసర్ శ్రీనివాస్ రెడ్డి, ఉమాశివ అన్నారు. గురువారం గజ్వేల్ పట్టణంలోని బాలుర విద్యారాంశంలో సూక్ష్మజీవశాస్త్ర విభాగం ఆధ్వర్యంలో జీవశాస్త్రాలు -సమకాలీన దోరణులు అనే అంశంపై కుడ్యచిత్ర ప్రదర్శనా పాట పోటీలను నిర్వహించారు. ఈ సందర్భంగా వారు మాట్లాడుతూ విద్యార్థుల సర్వంగీత వికాసానికి విద్యనైత్య కార్యక్రమాలను నిర్వహిస్తున్నామన్నారు. డిగ్రీ స్థాయిలోనే పరిశోధనా దృక్పథాన్ని అలవర్చుకోవాలన్నారు. విద్యార్థులు తరగతిగదులకే పరిమితం కాకుండా విశ్వ విజ్ఞానాన్ని హస్తగతం చేసుకునేందుకు అవకాశాలను సమీక్షిస్తామని చెప్పారు. సూచన ఆవిష్కరణ



పరిశోధనలో ప్రథమ స్థానంలో నిలిచి బహుమతులను అందుకుంటున్న విద్యార్థులు

రణలకు కుడ్యచిత్ర ప్రదర్శన వంటి కార్యక్రమం తోడ్పడుతుందన్నారు. అధ్యాపకులు హరికృష్ణ, గోపాలసుందర్, కుమారస్వామి, రవియ్యారావు, రమేష్ బాబు, రజనీష్, హరినాథ్, జవాని, అడవి రాజు, సిద్ధిపేట కోర్సాల అధ్యాపకులు డాక్టర్ ప్రదీప్ తదితరులు పాల్గొన్నారు.

Fri, 08 February 2019
https://epaper.ithnews.com/c/36522978

ఆంధ్రజ్యోతి
Fri, 08 February 2019
https://epaper.andhrasjyothy.com/c/36526107



Inauguration of the program by Dr. A. Srinivas Reddy , Principal of the college



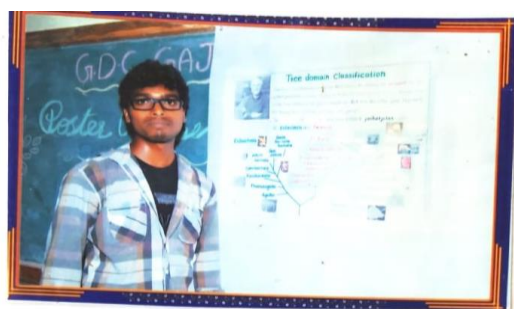
Poster presentation by the students to the audience



Distribution of certificate and issue of awards to the best performers



Below Ch. Asuna, 2nd year MBC Student presenting poster on "Morphology of prokaryotic cell & Human Microbiome"



Yada Gursi 2nd year M.B.C student presenting "Three domain classification of living organisms"



Above Gunda Kumar, MBC 2nd year student exhibiting poster on Yeast - Its role in human welfare & Industrial

A poster presentation competition on **Microbiology – Human welfare** on 28.02.2014.

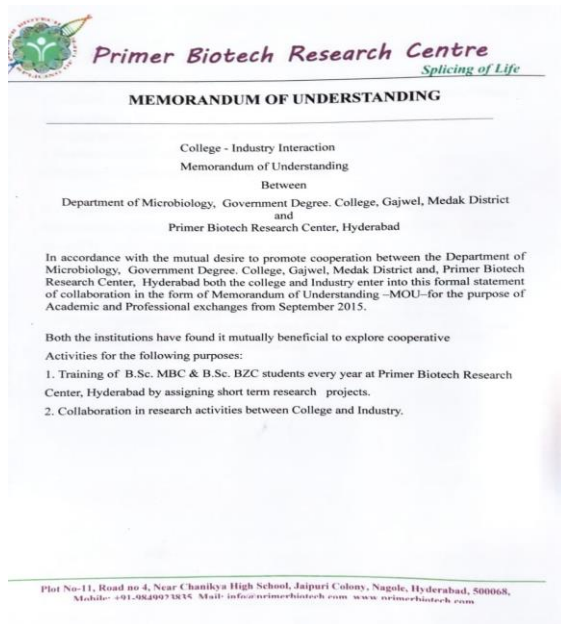
STUDENT STUDY PROJECTS

The department also encourages the students to do study projects. In the academic year 2017-18 study project on **“A study on synthetic colours, sanitary quality of indian sweets, Chegodi in Gajwel and usage of alternate biocolours”** carried by students. This study project was selected at district level in JIGNASA competitions 2018.



Memorandum of Understanding

Department of Microbiology, Government Degree College, Gajwel and Primer Biotech Research centre, Hyderabad have entered in to a Memorandum of Understanding (MoU) in 2015 and aimed to foster quality assurance and quality sustenance in the department. In collaboration with the Primer Biotech research Centre a three day Hands on Expierence workshop entitled “Molecular biology techniques was conducted ” 14-16 November 2015



EXTRA-CURRICULAR ACTIVITIES

Activity: Health Camp

The programme “**Health camp**” was organized by the Department of Microbiology in association with **Rotary Club, Gajwel**, Woman Empowerment cell, Internal Compliance Committee, NSS-II unit of the college on 14-15 August 2015. Department of Microbiology students have performed the BMI, Hemoglobin estimate of other students and medicines were distributed to the anemic students. In this health camp more than 350 students were participated and checked their BMI, Blood grouping etc.



ఆడవాళ్ళకు బట్టతల రాదేం? ,

Bald-head not seen in women-Why?

Title of the Practice: Science Flash cards

Science flash cards are display of images which shows the interesting information related to the recent science and developments as well as trending matters. The science flash cards are like did you know concept. It is inspired from the CCMB open day Exhibition displays

BIZZARE ICE-PLUS BACTERIA



- It is *Pseudomonas syringae*.
- It forms ice crystals from water
- Ice crystal proteins, INA creates ordered structures in the water & remove heat from the water
- Commercial trade name- Snomax



❑ Ice nucleation-active proteins found on the outer bacterial cell wall acts as the nucleating centers for ice crystals.

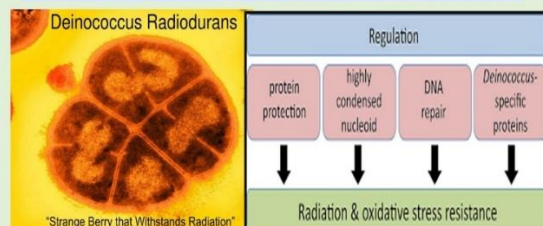
ఎడు పాక కొట్టడా? Birds will not be shocked?



పాత్ర : ఎందుకు పిగిలు కాచేత ఎనిమిదే పాక కొడుతుంది. కానీ ఎక్కువ కంటకు పిగిలు కొట్టు తొక్కుచూ ఏమీ జరగదు?

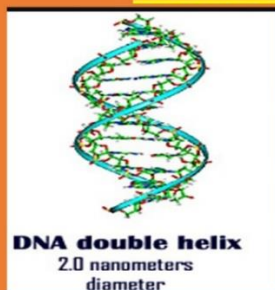
జవాబు : ఇప్పుడు విద్యుత్ సరఫరా చేసే స్తంభాలకు సాధారణంగా వాడుక పిగిలు ఉంటాయి. అందులో మూడు పిగిళ్ళు పేజాలు అని, ఒకదాన్ని మ్యాట్టర్ అనే అంటారు. ఒక పేజ పిగిలు, మరో పేజ పిగిలు మధ్య, ఒక పేజ పిగిలు, మ్యాట్టర్ పిగిలు మధ్య విద్యుత్ పోటన్షియల్ ఉంటుంది. ఒక చ్యక్తిలోకానీ, వస్తూవులో కానీ, అందువల్లగానీ విద్యుత్ ప్రవాహంకాబట్టి కాచే అలాగే ఇలాగే విద్యుత్ పోటన్షియల్ తేడా ఉంటుంది. అంటే ఒక చ్యక్తికి పాక కొట్టాలంటే పేజాలలో ఏమీం రెండు పిగిలతో అనుసంధానం ఉంటుంది. అప్పుడు అంతక పోటన్షియల్ ఉన్న పిగిలోకి, అప్పు పోటన్షియల్ ఉన్న పిగి నుంచి ఎలక్ట్రాన్లు ఆ చ్యక్తి ద్వారా ప్రయాణిస్తాయి. ఇలా ఎలక్ట్రాన్లు తీసుకో ప్రవహిస్తే ప్రమాదం. ముందుకు అలాగే కిలం ఒక పిగిలు చ్యక్తిలోకి పోతుంది. పాకచేత ఏమీ జరగదు. పిగిలు చ్యక్తిలోకి రెండు పిగిళ్ళు వస్తాయి. కాబట్టి వాటి వీధా ద్వారా విద్యుత్ ప్రవహిస్తుంది. పోటన్షియల్ అంత అంతక కాదు. ఇంతక కాదు ఒకపాక పడేత పాకకి గుంపుతుంది. ఇలాంటి

DEINOCOCCUS- STRANGE BACTERIA

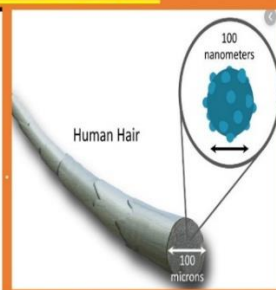


- ✓ **D. radiodurans** is an extremophilic bacterium, one of the most radiation-resistant organisms.
- ✓ Survives in cold, dehydration, vacuum, and acid. Hence known as **polyextremophile**.

FACTS OF DNA



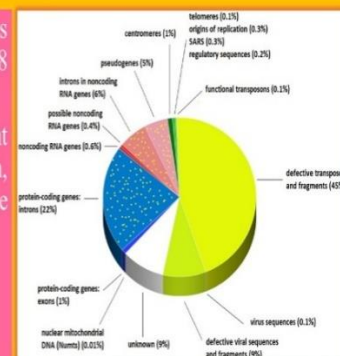
DNA double helix
2.0 nanometers diameter



- ❑ You could fit 25,000 strands of DNA side by side in the width of a single adult hair.
- ❑ Average diameter of hair is 100 μm . DNA diameter is 2 nm

FACTS OF DNA

- ❖ Your DNA includes materials from at least 8 viruses
- ❖ They help in important functions like cell division, regulation of immune system.



Title of the activity: science talks

Date: 24/01/2020

time: 02:00-02:45

Topic: Wonder Animals And Animal Wonders

Presenter: Dr. N. Harikrishna, Assistant Professor of Microbiology, Govt. Degree College, Gajwel, Siddipet district



STUDENT PROGRESSION

The faculty members of the department is explaining the student about all the future courses and scope available to them to pursue higher studies and jobs. With this motto a extension lecture was also conducted for the students.



September
1-~~09~~-2015
Tuesday.

Extension
activity .

2PM to
5PM

Impact -2015 organized by
Department of Microbiology

GOVERNMENT DEGREE COLLEGE GAJWEL
DEPARTMENT OF MICROBIOLOGY
ACADEMIC YEAR 2019-20
PG ENTRANCE RANK HOLDERS

| S.No | Hall ticker No | Name of the student | University/ Entrance exam | PG rank in entrance |
|-------------|-----------------------|----------------------------|--------------------------------------|----------------------------|
| 1. | 72088260103 | K .Srinivas | Osmania University | 394 |
| 2. | 72087530261 | M.Venkatesh | Osmania University | 3120 |
| 3. | 72087530267 | D. Kalyan | Osmania University | 2528 |
| 4. | 72087530406 | R. Mahesh | Osmania University | 1296 |
| 5. | 72088260101 | A.Nagender | Osmania University | 2933 |
| 6. | 72088260124 | Ch. Naresh Kumar | Osmania University | 1411 |
| 7. | 72087530264 | K. Prashanth | Osmania University | 2755 |

GOVERNMENT DEGREE COLLEGE GAJWEL**DEPARTMENT OF MICROBIOLOGY****ACADEMIC YEAR 2018-19**

| Sl.No | Hall Ticket Number | Name | Rank in BCGMES Common test/ Biotechnology test (Osmania University/) | Allotted College | Allotted Course |
|--------------|---------------------------|-----------------------|--|---|------------------------|
| 1 | 72087530041 | TummaChandana | 132 | Kakatiya University Campus, Vidyaranyapuri, Warangal | Microbiology |
| 2. | 73087530041 | TummaChandana | 241 | University college of Science and Informatics Mahatma Gandhi University | Biotechnology |
| 3. | 72087530046 | NallandeegalVarshini | 244 | Palamur University, Mahabub Nagar | Microbiology |
| 4. | 72087530033 | PalojiAkhila | 434 | Kakatiya University Campus, Warangal | Microbiology |
| 5. | 72087530046 | KolichelimeAruna | 447 | Palamur University Campus | Microbiology |
| 6. | 72087530043 | SyedaKarishmaTabassum | 790 | Kakatiya Government Degree College, Warangal | Microbiology |
| 7. | 73087530018 | SyedaKarishmaTabassum | 436 | Kakatiya University Campus | Biotechnolgy |
| 8. | 72087530095 | KistalaSwarnalatha | 622 | University college of Science and Informatics Mahatma Gandhi University | Biochemistry |
| 9 | 72087530045 | Sampangi Shaker | 679 | MNR Degree and PG college Kukatpalli | Microbiology |
| 10 | 7208750093 | MachiReddyRoja | 859 | Vaagdevi Degree College, Warangal | Microbiology |
| 11 | 72087530042 | PangaRavali | 942 | MNR Degree and PG college, Kukatpally | Microbiology |
| 12 | 72087530064 | KadullaBhanu Prasad | 1150 | Mumtaz College, Malakpet | Microbiology |

STRENGTH, WEAKNESS, OPPORTUNITIES AND CHALLENGES (SWOC) OF THE MICROBIOLOGY DEPARTMENT

Strengths:

- Good repository of soft copies of books
- Department has sophisticated two labs and three class rooms
- Relevant and up to date library
- Multimedia enabled labs (Sound and LCD projector)
- Staff members hold Doctorates
- Dedicated, enthusiastic and committed staff members
- Freedom to voice one's opinion both for staff and students
- Very good environment in the college and department

Weaknesses:

- Lack of research work and sufficient publications
- No Post Graduate Programme
- No industrial tie up or consultancies

Opportunities:

- Encourage students towards research
- Improved infrastructure with increased grants
- Freedom to evaluate students using a variety of evaluation methods

Challenges:

- To show the more job opportunities to the students
- To encourage students to pursue towards the entrepreneurship in Microbiology
- Increasing the department involvement in extension activities
- Sustainance and continue of students to pursue further higher studies

FUTURE VISION AND PLANS OF THE DEPARTMENT

- Continuation of the present teaching and research activities.
- Organization of the State level students Seminar
- Continue encouraging student participation in inter-collegiate activities
- Working with our students to continue enhancing the core values of our department of Harmony with the Environment, striving towards academic excellence and personal integrity.
- Proposed to conduct the PG entrance coaching for the II and III year students.
- Organization of National Seminar, workshops in collaboration with other institutes.
- Introducing short term courses on Medical laboratory techniques.
- Starting a Department Magazine featuring articles by students

CURRICULUM VITAE OF Dr. N. HARIKRISHNA

Dr. N. Harikrishna
Assistant Professor and Head,
(Chairman, Board of Studies)
Department of Microbiology,
Government Degree College, Gajwel
Siddipet (Dt)-502103, India.



Name : **Dr. N. Harikrishna**
Designation : **Assistant Professor**
Department : **Microbiology**
Institute : **Government Degree College, Gajwel**
Office Address : **Department of Microbiology,
Government Degree College, Gajwel
Siddipet (Dt), Telanga, India**
Date of Birth : **03-07-1985**
Marital Status : **Married**
Telephone No : **+91 9966222110, Office: 08457-222110**
E-mail : **harinagmalli@gmail.com**
Sex : **Male**

Educational Qualifications : M.Sc., Ph D.

Teaching Experience:

For Undergraduate Students (B.Sc) : **9 Years.**

Scholarly work:

Research Papers published in ISSN/ISBN-Journals : **08**

National & International level seminars attended : **20**

Papers presented in National and International level seminars : **14**

Faculty Development Programmes & R.C,s Attended : **09**

Projects Guided/Supervised : **04**

Books published (Editorial member) : **03**

PAPERS PUBLISHED:

- **HarikrishnaNagamalli**, MahalakshmiSitaraman, Kiran Kumar Kandalai, Gopal Reddy Mudhole. 2017. Chicken egg shell as a potential substrate for production of alkaline protease by *Bacillus altitudinis* GVC11 and its applications. 3 Biotech (2017) 7:185
- **N. Harikrishna**, S. Mahalakshmi, K. Kiran Kumar, Gopal Reddy. 2017. Fish scales as potential substrate for production of alkaline protease and amino acid rich aqua hydrolyzate by *Bacillusaltitudinis* GVC11: Indian J MicrobiolDOI 10.1007/s12088-017-0664-2 (ISSN 0046-8991)(July 2017) (Impact factor 1.9)
- **N. Harikrishna**, S. Mahalakshmi, Y. Ranjita and Gopal Reddy. Alkaline protease of *Bacillus altitudinis*GVC11 for gelatin hydrolysis and silver recovery from used X-ray films. 2016. European Journal of Pharmaceutical and Medical Research, 3(10), 213-217. .(ISSN **2394-3211**)
- K. Kiran Kumar, S. Mahalakshmi, **N. Harikrishna** and Gopal Reddy. 2016. Production, characterization and antimicrobial activity of silver nanoparticles produced by *Lactobacillus amylophilus*GV6. 2016. European Journal of Pharmaceutical and Medical Research. 3(7), 236-242.(ISSN **2394-3211**)
- Madhuri, A., B. Nagaraju, **N.Harikrishna** and Gopal Reddy. 2012. Production of alkaline protease by *Bacillus altitudinis* GVC11 using castor husk in solid state fermentation. Applied biochemistry and biotechnology. 167:1199-1207.(ISSN 0273-2289) (Impact factor 1.9)
- Vijay Kumar, E., M. Srijana, K. Kiran Kumar, **N. Harikrishna**and Gopal Reddy. 2011. A novel serine alkaline protease from *Bacillus altitudinis* GVC11 and its application as a dehairing agent. Bioprocess Biosystems engineering. 34: 403-409. (ISSN: 1615-7591)
- Gopal Reddy, Kiran Kumar K, Chaitanya K and **Harikrishna N**. 2012. Lactic acid bacteria for health and wealth. Microbial diversity Exploration and bio processing Scientific Publishers. 155-167. (ISBN: 978-81-7233-782-7)
- Harish Kumar Reddy, Y., M. Srijana, **N. Harikrishna N**, D. Madhusudhan Reddy and Gopal Reddy. 2010. Ethanol tolerant anaerobic cellulolytic ethanologenic bacteria isolated from decomposed Paper. Current Trends in Biotechnology and Pharmacy 4: 947-956.(ISSN 0973-8916)

CONFERENCE AND SEMINARS ATTENDED:

- Participated in one day national level webinar on **“Aftermath of COVID-19 on Indian Higher Education: Challenges and Strategies”** organised by Department of Commerce, Government Degree College, Gajwel, 12 May 2020.
- Participated presented paper entitled **“Inexpensive medium for production of alkaline protease production by *Bacillus altitudinis* GVC11”** in international symposium of **“59 Annual conference of Association of Microbiologists of India (AMI 2018) & International symposium on Host- Pathogen interactions”** organized by School of life sciences, University of Hyderabad, Hyderabad, Telangana-500046, India. (9-12 Dec 2018).
- Participated in One day state level seminar on **“Emerging information communication technology in teaching learning and research in higher educational institutions”** organised by Department of library and information science, Government Degree College, Siddipet on 31 March 2018 (31 March 2018).
- Participated presented paper entitled **“A study on avian diversity in Siddipet, Siddipet (Dist), Telangana.”** in Two day National conference on **“Biodiversity and human health”** organized by Department of Botany life sciences, University of Hyderabad, Hyderabad, Telangana-500046, India. (17-18 Nov 2017).
- Participated in National seminar on **“Choice based credited system : Opportunities challenges and concerns”** organized by Department of Commerce, Government Degree College, Siddipet, Telangana. (Dec 2016).
- Presented and presented oral presentation in national seminar entitled **“ Recent trends in Microbial Genetics”** conducted by GDC(W), Hussaini Alum, Hyderabad, Telangana (22-23, July 2015).
- Participated in national seminar entitled **“Advances In Microbial Technology”** organized by Department of Microbiology, University college of Science, Osmania University, Hyderabad. (29-30, May 2015)
- Participated and presented paper entitled **“Brewery spent grain as potential substrate for alkaline protease production”** in National conference on **“ Recent trends in Microbial Biotechnology”** organized by department of Microbiology, Osmania University, Hyderabad (26-28, February 2015)

- Presented poster entitled “ **Chicken Egg Shell as a Potential Substrate for production of Alkaline protease by *Bacillus altitudinis*GVCC11**” in National Conference on “**Empowering Mankind with Microbial Technologies**”- **55 Annual Conference of Association of Microbiologists of India**, organized by Tamil Nadu Agricultural University, Coimbatore, held on 12-14 November 2014.
- Presented oral presentation on “**Gelatin decomposition and silver recovery from used X-ray films by alkaline protease of *Bacillus altitudinis* GVC11**” at national seminar “**Emerging Trends in Microbial Biotechnology**” conducted at SRR Degree college, Karimnagar, Telangana.(8-9 January, 2014)
- Participated in national seminar entitled “**Competency Mapping Among College Teachers: Problems and Prospects**”organized by Department of Commerce, Government Degree College, Siddipet, Medak, Telangana.(29-30 January 2014)
- Presented a paper on “**Production of protease and its Applications protease**” in National seminar “**Recent Developments in Biological sciences -2014**” conducted by Department of Zoology, Government Degree College, Siddipet, Medak.(22-23 August, 2014)
- Presented poster entitled “ **Cost effective production of alkaline protease and amino acid rich aqua hydrolysates by *Bacillus altitudinis* GVC11**” in “**International conference on Advances in Biotechnology and Bioinformatics (ICABB)**” conducted by Dr. D.Y. Patil Biotechnology and Bioinformatics Institute at Pune, Maharashtra (25-27, November 2013)
- Presented poster on “**Production of alkaline protease using agro wastesby *Bacillus altitudinis* GVC 11**”in National seminar on “**Recent Trends in Plant Sciences**” conducted at GirrajGovt Degree college, Nizamabad. (20 February 2013)
- Presented poster on “**Rhizosphere bacteria for production of L- Asparaginase**” in “**Global Meet Of Biologists**” conducted by IICT, Hyderabad (Dec 2012).
- Presented poster on “**Cost effective production of alkaline protease by *Bacillus altitudinis* GVC 11 using low cost fish waste as substrate**” in “**International conference on New horizons in Biotechnology**” held at National institute for Interdisciplinary Science and Technology, CSIR at Thrivandrum (21-24, November 2011)
- Presented poster on “**Biodegradation of Agricultural and cellulolytic bacteria**” in “**Climate Change –Perspective and projections- A System Approach**” conducted by Osmania University, Hyderabad. (9-11, December 2010).

- Participated in National conference on **“Micro Biotech-2005” 46- Annual conference of Association of Microbiologists of India** organized by department of Microbiology, University college of Science, Osmania University, Hyderabad. (8-10 December 2005).

WORKSHOPS ATTENDED:

- Participated in two day Science academies virtual lecture workshop on **“Covid 19: Basics to clinical”** on 9-10 December 2020, organized by Department of Botany, Telangana University, Dichpally, Nizamabad District, Telangana State
- Participated in 5 day online workshop on **“E Content”** organized by Universal Teachers Academy, Puducherry, India from 1-5, July 2020.
- Participated in One day State level Workshop on **“ Quality enhancement measures in higher educational institutions ”**conducted by IQAC, Government Degree College, Siddipet. (31 July 2017).
- Participated in a state level workshop on **“schemes and Fellowships for teachers and students in higher education institution in India ”** organized by Department of chemistry, Government Degree College, Siddipet (27 Feb 2017)
- Participated in one day District level workshop on **“Implementation of Choice Based Credit System in Higher Education Institutions: Prospects and Challenges”** conducted by Department of Commerce, Government Degree College, Siddipet. (05 July 2016)
- Participated in One day State level Workshop on **“ Attaining and sustaining ”**conducted by IQAC and English Department, Government Degree College, Siddipet. (07 September 2016).
- Participated in hands on experience workshop entitled **“Animal cell culture”** conducted by DBT-OU ISLARE, CFRD, Osmania University Hyderabad (11-13 March 2015)
- Participated in workshop entitled **“Flow cytometry”** conducted by CFRD, Osmania University, Hyderabad. (21-23 March 2013)

- Participated in workshop entitled **“Exploration of Agro- Industrial biomass for integrated bio fuels and novel products through sustainable production systems”** conducted by IICT, Hyderabad (Jan 2011)
- Participated in workshop entitled **“Gene Cloning and Expression in Bacteria”** conducted by MKU, Madurai, Tamilnadu. (16 september to 1 October 2010)
- Participated in workshop entitled **“Chromatography Equipments”** conducted by CFRD, Osmania Univeristy, Hyderabad. (2-3 November 2010)

PRESENTATIONS & AWARDS RECEIVED:

- Received consolation award for oral presentation presented in National Seminar on **“Emerging trends in Microbial Biotechnology”** held at SRR college, (2014) Karimnagar.
- Received the Best Teacher Award from CCE for the academic year 2011- 2012 at district level.

REFRESHER/ORIENTATION AND FDP COURSES:

- Participated in the UGC-HRDC-RUSA Sponsored FIP Online Short Term Course on **Soft Skills: Teaching for Excellence** organized from 06.07.2020 to 11.07.2020 by Osmania Univeristy, Hyderabad, Telangana state.
- Participated in FDP entitled **“Effective Ways to Develop E-content For Teaching-Learning”** organized by Maratha Vidya Prasarak Samaj’s, K.R.T. Arts, B.H. Commerce and A.M. Science (K.T.H.M.) College, Nashik in association with Human Resource Development Centre (UGC-HRDC), Savitribai Phule Pune University, Pune from 21st May 2020 to 30th May 2020.
- Participated in One Week Faculty Development Programme on "Open Source Tools for Research" organized by Teaching and learning centre, Ramanujan College, New Delhi in association with HRDC, New Delhi, from June 08 - June 14, 2020.
- Participated in 12 weeks certificate course entitled **“Intellectual property rights**, offered by Indian institute of Management, Bangalore (IIMB), 2019 via Swayam
- Participated in one week FDP on **“Statistics for engineers and teachers”** organized by E& ICT, in collaboration with Department of Biotechnolgy, NIT Warangal, Telangana (25-30 May 2019)

- Participated in FDP on “**Certificate Course on Bionanotechnology**” organized by Association of Indian biologists, Chennai, Tamilnadu, from 15.05.2020 to 11.06.2020
- Participated in 84 orientation course conducted by Univeristy of Hyderabad (HCU), Hyderabad (13 September to 10 October, 2013).
- Participated in Refresher course “**Recent Trends in Biotechnology and Bioinformatics**” conducted by JNTUH, Hyderabad (5-26 Nov 2012).
- Participated in 6 days **Induction Training Programmme** conducted by **Commissionerate of Collegiate Education (CCE), Hyderabad** at Tara Degree College, Sangareddy (26-31 December 2011)

BOOKS PUBLISHED:

- **Choice based credited system : Opportunities challnges and concerns. National seminar**
- National seminar on“**Competency Mapping Among College Teachers: Problems and Prospects**”organized by Department of Commerce, Government Degree College, Siddipet, Medak, Telangana.(29-30 January 2014)

OTHER ACHIEVEMENTS :

- Appointed as member of Governing body of Surabhi Pharmacy college, Gajwel (2019)
- Appointed as Coordinator of Microbiologists Society, India for Osmania University of Telangana State (2020)
- Worked as a master trainer for enumerators in the General elections April’2014.
- Trained the School teachers on preparation and methodology for science projects on occasion of the National Children Science Congress -2017 at Husnabad, Siddipet (Dist)
- Trained the School teachers on preparation and methodology for science projects on occasion of the National Children Science Congress -2018 at Gajwel, Siddipet (District).

EXTENSION LECTURES/ACTIVITIES

- Delivered a lecture as a invited speaker in state level webinar on “ **Emerging applications of Artificial of Artificial Intelligence (AI) in Sciences**” on 19 March,2021,organized by Department of Microbiology, Government Degree College, Khairatabad, Hyderabad District, Telangana state on

- Organized and delivered Lectures in Three day national level workshop on **“Emerging applications of ICT tools in Higher Education**, organized by Department of Microbiology, Government Degree College, Gajwel, Siddipet District, from 11-13 June 2020.
- Delivered a lecture as a resource person in national webinar entitled **“ICT tools in Higher education”** on 03-04 July 2020, organized by TSRWDC, Suryapet, Suryapet District, Telangana.
- Acted as Judge for District level students **“Study projects presentation and seelections” conducted at SRR Government Arts & Science College, Karimnagar**, on 15 December, 2017 atSRR Government Arts & Science College, Karimnagar.
- Presented an extension lecture on **“Tools and techniques”** for M.Sc fisheries, Department of fisheries, organised by Department of P.G fisheries (March 2018).
- Presented an extension lecture on **“Writing of dissertation project proposal and project report ”** for M.ScZoology, Department of Zoology, organized by Department of P.G Zoology (27 December2017).
- Participated in training program on **“Health initiatives and adolescence- BHAGYA”** for teaching staff under Rishtriya Kishore SwastyaKaryakram (RKSK) form 24-26 at Indian institute of Health and Family welfare in collaboration with CCE Government of Telangana, India.
- Participated in two day training program on **“NIPUNA- Nurturing young leaders in higher education - 2016”** for teaching staff held form 12-13 May, 2016 at RUSA Resource center, Hyderabad in collaboration with CCE Government of Telangana, India.