

**GOVERNMENT AUTONOMOUS COLLEGE (AUTONOMOUS)  
RAJAMAHENDRAVARAM**

**NAAC “A<sup>+</sup>” GRADE**



**DEPARTMENT OF MICROBIOLOGY  
BOARD OF STUDIES  
2022-2023**

**(All Semesters)**

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**ACADEMIC CELL, GOVERNMENT COLLEGE**

**(AUTONOMOUS) RAJAHMUNDRY**

**Proceedings of the Principal, Government College (Autonomous),  
Rajahmundry**

**Present: Dr.R.David Kumar Swamy, M.Sc, M.Phil., Ph.D**

**Re. No: 155/Acad.Cell-GC[A]-RJY/BOS/2022-23, Dated: 25 July 2022**

**Sub:-** Government College (Autonomous), Rajahmundry– **Boards of Studies**  
(BoS) –Nomination of Members - Orders Issued.

**Ref:-** UGC Guidelines for Autonomous Colleges - 2018.

**ORDER:**

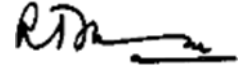
The Principal, Government College (Autonomous), Rajahmundry is pleased to constitute **Board of studies in MICROBIOLOGY** for framing the syllabi in Microbiology subject for all semesters duly following the norms of the UGC guidelines for Autonomous Colleges.

<b>S.NO</b>	<b>NAME</b>	<b>DIGNATION</b>
<b>1</b>	<b>Smt.T.Sony Lecturer-in charge, Department of Microbiology GC(A), Rajahmundry</b>	<b>Chairman</b>
<b>2</b>	<b>Dr.T.Sujatha Lecturer in Microbiology GC(A),Rajahmundry</b>	<b>Member</b>
<b>3</b>	<b>Smt.P.Suneetha Lecturer in Microbiology SCIM GDC, Tanuku.</b>	<b>Subject expert</b>
<b>4</b>	<b>Smt.T.Sasikala ABN College, Kovvur.</b>	<b>Subject expert</b>
<b>5</b>	<b>Dr.P.Vijayanirmala Associate professor ANUR, Rajahmundry.</b>	<b>University nominee</b>
<b>6</b>	<b>Sri G. Venkateshwara Raor, QA Incharge, Sr.Microbiologist, AVR Marines, Private limited, Attili, West Godavari, Andhra Pradesh</b>	<b>Industrial expert</b>
<b>7</b>	<b>Mr. M.Sai Ram Kalyan</b>	<b>Student nominee</b>

The above members are requested attend the BOS meetings and share their valuable views, suggestions on the following functionaries:

- a) Prepare syllabi for the subject keeping in view the objectives of the college, interest of the stake holders and national requirement for consideration and approval of the Academic Council
- b) Suggest methodologies for innovate teaching and evaluation techniques
- c) Suggest panel of names to the Academic council for appointment of examiners
- d) Coordinate research, teaching, extension and other activities in the department of the college.

The term of the members will be Three years from the date of issue of this proceedings. The Chairman of the BoS (HoD/lecturer In-Charge of the department) is directed to coordinate with the Principal of the College and conduct BoS meetings as and when necessary, but at least twice a year.



**PRICIPAL  
GOVERNMENT COLLEGE [A]  
RAJAHMUNDRY**

Copy to:

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**GOVERNMENT COLLEGE (A), RAJAMAHENDRAVARAM**  
**DEPARTMENT OF MICROBIOLOGY**  
**BOARD OF STUDIES**

**Composition of BOS**

The Board of Studies meeting of I, II, and III B.Sc Microbiology for all semesters for the academic year 2022-2023, held in the Department of Microbiology on 28-07-2022 at 11 AM with Smt. T. Sony, Lecturer in-Charge, in the chair along with the following members.

1. **Chairman** : Smt.T.SONY, Head of the Department of Microbiology, GC (A) , Rajamahendravaram.
2. **Faculty Member** : Dr.T.Sujatha, Lecturer in Microbiology, GC (A), RJY
3. **University Nominee** : Dr.P. Vijaya Niramala, Associate Professor , Department of Zoology, Adikavi Nannaya University, zoologyaknu@gmail.com
4. **Subject expert** : Smt. P. Suneeta, Lecturer in Microbiology, GC (A),--Dept of Microbiology , SCIM , GDC Tanuku.
5. **Local Subject expert** : Smt. T. Sasikala, Lecturer, Dept of Microbiology ABN & PRR College, Kovvur
6. **Expert from Industry:** Sri G. Venkateshwara Rao, QA Incharge, Sr.Microbiologist, AVR Marines, Private limited, Attili, West Godavari, Andhra Pradesh.
7. **Student Nominee** : Mr. M.Sai Ram Kalyan

**AP STATE COUNCIL OF HIGHER EDUCATION**

**CBCS PATTERN FOR MICROBIOLOGY**

**B.Sc MICROBIOLOGY (CBCS) REVISED SYLLABUS – w.e.f. 2020-2021**

<b>YEAR</b>	<b>SEMESTER</b>	<b>PAPER</b>	<b>TITLE</b>	<b>MARKS</b>	<b>CREDITS</b>	
<b>I</b>	<b>I</b>	MBT - I	INTRODUCTION TO MICROBIOLOGY AND MICROBIAL DIVERSITY	100	<b>3</b>	
		MBP - I	INTRODUCTION TO MICROBIOLOGY AND MICROBIAL DIVERSITY	50	<b>2</b>	
	<b>II</b>	MBT - II	MICROBIAL PHYSIOLOGY AND BIOCHEMISTRY	100	<b>3</b>	
		MBP - II	MICROBIAL PHYSIOLOGY AND BIOCHEMISTRY	50	<b>2</b>	
<b>II</b>	<b>III</b>	MBT -III	MOLECULAR BIOLOGY AND MICROBIAL GENETICS	100	<b>3</b>	
		MBP - III	MOLECULAR BIOLOGY AND MICROBIAL GENETICS	50	<b>2</b>	
	<b>IV</b>	MBT - IV	IMMUNOLOGY AND MEDICAL MICROBIOLOGY	100	<b>3</b>	
		MBP - IV	IMMUNOLOGY AND MEDICAL MICROBIOLOGY	50	<b>2</b>	
		MBT - V	MICROBIAL ECOLOGY AND INDUSTRIAL MICROBIOLOGY	100	<b>3</b>	
		MBP - V	MICROBIAL ECOLOGY AND INDUSTRIAL MICROBIOLOGY	50	<b>2</b>	
			<b>A PAIR</b>			
	<b>III</b>	<b>V</b>	MBT-A1	FOOD, AGRICULTURE AND ENVIRONMENTAL MICROBIOLOGY	100	<b>3</b>
MBP-A1			FOOD, AGRICULTURE AND ENVIRONMENTAL MICROBIOLOGY	50	<b>2</b>	
			MBT-A2	MANAGEMENT OF HUMAN MICROBIAL DISEASES AND DIAGNOSIS	100	<b>3</b>

		MBP-A2	MANAGEMENT OF HUMAN MICROBIAL DISEASES AND DIAGNOSIS	50	2
		<b>B PAIR</b>			
		MBT-B1	MICROBIAL BIOTECHNOLOGY AND R-DNA TECHNOLOGY	100	3
		MBP-B1	MICROBIAL BIOTECHNOLOGY AND R-DNA TECHNOLOGY	50	2
		BMT B2	BIOSTATISTICS AND BIOINFORMATICS	100	3
		MBP B2	BIOSTATISTICS AND BIOINFORMATICS	50	2
		<b>C PAIR</b>			
		MBT-C1	MICROBIAL QUALITY CONTROL AND INSTRUMENTATIONS AND TECHNIQUES	100	3
		MBP-C1	MICROBIAL QUALITY CONTROL AND INSTRUMENTATIONS AND TECHNIQUES	50	2
		MBT C2	DRUG DESIGNING, DISCOVERY AND INTELLECTUAL PROPERTY RIGHTS	100	3
		MBT-C2	MICROBIAL QUALITY CONTROL AND INSTRUMENTATIONS AND TECHNIQUES	50	2

**OVERNMENT COLLEGE (A) RAJAMAHENDRAVARAM**  
**Structure of MICROBIOLOGY under CBCS Allocation of Credits**

Year	Sem ester	Course Code	Course Title	Hrs/ Week L+T+P	Marks (SEE)	Marks in CIA	CREDIT S
<b>I</b> <b>B.Sc</b>	<b>I</b>	MBY140	Introduction to microbiology and microbial diversity	3+1	50	50	<b>3</b>
		MBY-P-140 Practical	Introduction to microbiology and microbial diversity	2	50	--	<b>2</b>
	<b>II</b>	MBY141	Microbial physiology and biochemistry	3+1	50	50	<b>3</b>
		MBY-P-141 Practical	Microbial physiology and biochemistry	2	--	50	<b>2</b>
<b>II</b> <b>B.Sc</b>	<b>III</b>	MBY142	Molecular biology and microbial genetics	3+1	50	50	<b>3</b>
		MBY-P-142 Practical	Molecular biology and microbial genetics	2	50	--	<b>2</b>
	<b>IV</b>	MBY143	Immunology and medical microbiology	3+1	50	50	<b>3</b>
		MBY-P-143 Practical	Immunology and medical microbiology	2	--	50	<b>2</b>
		MBY144	Microbial ecology and industrial microbiology	3+1	50	50	<b>3</b>
		MBY-P-144 Practical	Microbial ecology and industrial microbiology	2	--	50	<b>2</b>
	<b>III</b> <b>B.Sc</b>	<b>V</b>	<b>A PAIR</b>				
			MBY-145-A1	Food, agriculture and environmental microbiology	3+1	50	50
		MBY-P-145-A1 Practical	Food, agriculture and environmental microbiology	2	--	50	<b>2</b>
		MBY-146-A2	Management of human microbial diseases and diagnosis	3+1	50	50	<b>3</b>
		MBY-P-	Management of human microbial	2	--	50	<b>2</b>



		146-A2 Practical	diseases and diagnosis				
		<b>B PAIR</b>					
		MBY-145 B1	Microbial biotechnology and r-dna technology	3+1	50	50	<b>3</b>
		MBY-P-145 B1 Practical	Microbial biotechnology and r-dna technology	2	--	50	<b>2</b>
		MBY -146 B2	Biostatistics and bioinformatics	3+1	50	50	<b>3</b>
		Practical	Biostatistics and bioinformatics	2	--	50	<b>2</b>
		<b>C PAIR</b>					
		MBY-145 C1	Microbial quality control and instrumentations and techniques	3+1	50	50	<b>3</b>
		MPY-P-145 C1 Practical	Microbial quality control and instrumentations and techniques	2	--	50	<b>2</b>
		MBY 146- C2	Drug designing, discovery and intellectual property rights	3+1	50	50	<b>3</b>
		MBY-P 146- C2 Practical	Microbial quality control and instrumentations and techniques	2	--	50	<b>2</b>

It is resolved to approve the above course structure for admitted batch **2022 – 2023** & also same for **2021-2022**.

**GOVERNMENT COLLEGE (A), RAJAMAHENDRAVARAM**  
**DEPARTMENT OF MICROBIOLOGY**

**Minutes of Board of Studies 2022-2023**

The Board of Studies meeting for I, II, and III B.Sc Microbiology of all semesters for the academic year 2022-2023, was held at 11 AM on 28/07/2022. The Chairperson Smt.T.Sony & other members of the Board of Studies met in the department of Microbiology, Government College Rajahmundry and discussed the following agenda points:

**AGENDA**

1. Revision of / up gradation of course for the III year BSc (MZC & FMZC)
2. Mode of instruction –Blended with offline & online teaching & learning.
3. Model question papers, Assignments question for each course as part of continuous internal assessment & blue prints for each course.
4. Panel of Question Paper Setters & Examiners.
5. SEE: CIA evaluation
6. Proposal for Extension Activities like Community Service / Field Trips/ Study tours/Student Study projects/Industrial Visits/ Extension Lectures / Green Initiatives for the students
7. Enrolling students in SWAYAM / MOOC courses of Microbiology & IPRs
8. Certificate course on “Green Practices – Solid Waste Management & Eco Friendly Farming”
9. Any other proposal with the permission of the chairman

## BOARD OF STUDIES MEETING 2022-23, July 2022

### Resolutions:

**Agenda point I:** Revision of / up gradation of course for the III year BSc (MZC & FMZC)

**Discussion:** The members of BOS discussed the curriculum under NEP & APSCHE & University Guidelines for UG B.Sc Microbiology for implementation of courses designed by department of Microbiology, Government College Autonomous, Rajahmundry.

**Resolution: I. A.** It is resolved to approve the revised course for B.Sc students by the Department of Microbiology according to our Teaching, Learning and Evaluation pattern which are in force at present.

**Resolution: I.B.** It is resolved to approve new courses mentioned against their semesters for V semesters of III B.Sc. The student has choice to opt for any one of the following three pairs. The titles of the pairs are as follows & details given as in page no. 8&9.

#### A PAIR

MBY A1 Food, agriculture and environmental microbiology

MBYP A1 Food, agriculture and environmental microbiology

MBY A2 Management of human microbial diseases and diagnosis

MBYP A2 Management of human microbial diseases and diagnosis

#### B PAIR

MBY B1 Microbial biotechnology and r-dna technology

MBYP B1 Microbial biotechnology and r-dna technology

MBY B2 Biostatistics and bioinformatics

MBYP B2 Biostatistics and bioinformatics

#### C PAIR

MBY C1 Microbial quality control and instrumentations and techniques

MBYP C1 Microbial quality control and instrumentations and techniques

MBY C2 Drug designing, discovery and intellectual property rights

MBYP C2 Drug designing, discovery and intellectual property rights

**Resolution: I.C.** It is also resolved to continue the same course structure for I & II B.Sc Microbiology as per BOS 2021-2022.

**Agenda point II:** - Mode of instruction –Blended with offline & online teaching & learning.

**Discussion:** The members of BOS discussed about the mode of instruction in both offline & online mode in 80:20. Eighty percent of teaching will be offline. Twenty percent of online instruction includes online test, online quizzes, LMS , Youtube lessons, free links for subject content.

**Resolution II:** The members resolved to follow the blended mode of teaching & learning in 80:20 ratios as discussed above.

**Agenda point III** - Model question papers, Assignments question for each course as part

of continuous internal assessment & blue prints for each course.

**Discussion:** The members of BOS discussed about changes in Model question papers & blue prints, Assignments question for each course as part of continuous internal assessment. Members suggested giving Course Outcomes & level of learning for each course.

**Resolution III. A. :** It is resolved to approve short answers two marks each instead of five marks questions in section B in all semesters of B.Sc Microbiology Question papers. The members of BOS approved the Blue Print, Model Question Papers & Assignment Questions for each course.

**Resolution III.B.** It is resolved to approve the given course outcomes for each course & levels of learning.

**Agenda point IV:** Panel of Question Paper Setters & Examiners

**Discussion:** The members of BOS discussed Panel of Paper Setters & Examiners and updated the same.

**Resolution IV:** It is resolved to approve the list of Examiners & Paper Setters enclosed for the next two academic years.

**Agenda point V:** SEE (Semester End Examination): CIA evaluation

**Discussion:** The members present discussed the SEE: CIA evaluation and ratified the same. CIA would consist of two internal exams of 20 marks. One online test for 10 marks. 5 marks for attendance, 5 marks for seminar, 10 for assignment 1 & 2. SEE for 50 marks.

**Resolution V:** Resolved to approve 50:50 CIA & SEE evaluation pattern for I, II & III year B.Sc students.

**Agenda point VI:** Proposal for Extension Activities like Community Service / Field Trips/ Study tours/Student Study projects/Industrial Visits/ Extension Lectures / Green Initiatives for the students.

**Discussion:** The members present discussed the need for Co-Curricular activities to enhance learning process & holistic approach to Microbiology subject.

**Resolution VI:** It is resolved to approve to conduct the above Co-Curricular activities during the course time. It is also approved that the co-curricular activities & additional inputs does not carry any Marks /Credits.

**Agenda point VII:** Enrolling students in SWAYAM / MOOCs courses of Microbiology & IPRs.

**Resolution VII:** It is resolved to enroll all B.Sc students in Microbiology & related online courses through SWAYAM / MOOCs platforms

**Agenda point VIII:** Certificate course on “Green Practices – Solid Waste Management & Eco Friendly Farming”

**Discussion:** The members present discussed about the relevance of the course to the microbiology subject and approved the syllabus for this certificate course.

**Resolution VIII:** It is resolved to approve the above certificate course structure and syllabus.

**Agenda point IX:** Any other proposal with the permission of the chairman

**Resolution IX:** It is resolved to approve the above course structure for admitted batch **2022 – 2023** & also same for **2021-2022**.

**Signatures of Members:**

<b>S.no</b>	<b>Name</b>	<b>signature</b>
1.	Chairman : Smt.T.Sony Head of the Department of Microbiology, Govt. College (A) – Rajamahendravaram.	
2.	Faculty member : Dr. T.Sujatha Lecturer in Microbiology Govt. College (A) – Rajamahendravaram	
3.	Dr.P. Vijaya Niramala, Associate Professor , Department of Zoology, Adikavi Nannaya University, zoologyaknu@gmail.com	
4.	Subject expert : Dr.P.Suneeta Dept of Microbiology SCIM Govt.college , Tanuku.	
5.	Local nominee / Subject expert : T. Sasikala Dept of Microbiology ABN & PRR College, Kovvur	
6.	Industrial nominee : Sri G. Venkateshwara Rao, QA Incharge, Sr.Microbiologist, AVR Marines, Private limited, Attili, West Godavari, Andhra Pradesh	
7.	Student member : Mr. M.Sai Ram Kalyan	

**Rajahmundry**  
**Date: -28-07-2022**

**Chairman**

**Government college Autonomous Rajahmundry NAAC A<sup>+</sup>**

**BOS Meeting 2022-2023**

**Microbiology**

List of paper setters & Examiners

S.No	Name of the lecturer	Papers	College
1	Ms. D. Jayasree, Lecturer in Microbiology	All	Head, Department of Microbiology A.S.D. Govt. College (A), Kakinada 8121000338 jayasreed@gcrjy.ac.in
2	Dr. A. Padmavathi Lecturer in Microbiology	All	Head Department of Microbiology Ch.S.D.St. Theresa's College For Women(A), Eluru, West Godavari (Dist.) 9440581035 Padmaanduri20@gmail.com
3	Dr. Y. Neeraja Lecturer in Microbiology	All	Department of Microbiology Ch.S.D.St. Theresa's College For Women(A), Eluru, West Godavari (Dist.) 9440159390 Neeraja2002@gmail.com
4	Dr. K.Sucharita Lecturer in Microbiology	All	GDC (W) GUNTUR 9963180561 sucharitak@gmail.com
5	Dr. LALITHA Lecturer in Microbiology	All	GDC Dr V S Krishna College (A) VISHAKAPATNAM 9491331865
6	Dr. PALLAVI Lecturer in Microbiology	All	GDC ANANTAPUR 9491233355 pallavi.pavan2003@gmail.com

7	Dr. VIMALA RHODE Lecturer in Microbiology	All	Silver Jubilee college GDC KURNOOL 9030856521 microbiology@sjgckurnool.edu.in
8	Dr.CH. MADHAVI Lecturer in Microbiology	All	GDC ANATAPUR 9908658952 chavalimadhulatha@gmail.com
9	Dr.K. Aruna Lecturer in Microbiology	All	SRR & CVR Government college Vijayawada 9490040657 kopuriarunadl@gmail.com
10	B.Lakshmi Lecturer in Microbiology	All	P R Government college Autonomous, Kakinada 8106620525
11	DR.CH. Shanti Devi	All	GDC Men Srikakulum 9052177822 <u>Ch.shanthi123@gmail.com</u>
12	Dr. Maqsood	All	SKR Government degree college, Tilak Naga Gudur Nellore 9849530338 <u>mdmaqsood.micro@gmail.com</u>
13	P. Aruna Lecturer in Microbiology	All	GDC Guntur WOMEN <u>patchalaaruna@gmail.com</u>
14	T.Sasikala Lecturer in Microbiology	All	ABN College, Kovvuru 9885861088
15	Dr.K.Usha shree Lecturer in	All	Government degree college Piler, Chittoor District

	Microbiology		
16	Dr.Praveena Lecturer in Microbiology	All	GDC Guntur WOMEN
17	Dr.P.Suneeta Lecturer in Microbiology	All	SCIM,GDC,Tanuku 7989146551

**Members**

**Chairman**