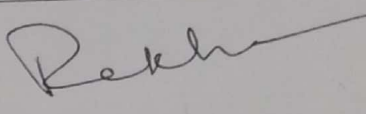
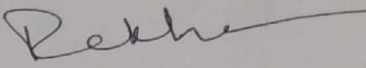
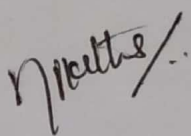
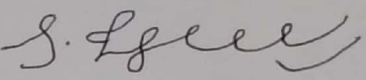
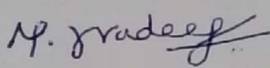
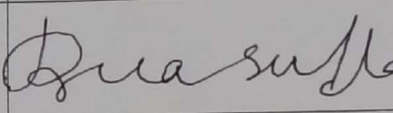
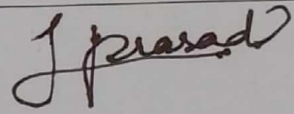
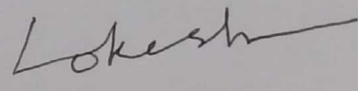
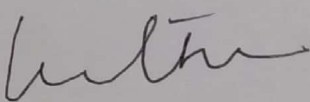
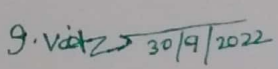


Dr.V.S.Krishna Govt. Degree College (Autonomous), Visakhapatnam
Minutes of the 8th Board of Studies- September 2022

Subject: Biotechnology

Department: Biotechnology

In pursuance of conferment of Autonomous status to Dr.V.S.Krishna Govt. Degree College(A), Visakhapatnam by the UGC vide letter No.F22-1/2011(AC) dated 20.07.2011 from -Dr.Manju Singh Joint Secretary, UGC, New Delhi and Proceedings No. C-II (CDC) /Dr.VSK.Govt.College/BOS/2018 dt.27.07.2017 of The Vice-Chancellor, Andhra University, Visakhapatnam, the -8th Board of Studies in Biotechnology Subject is conducted on - 30.09.2022 with the following members. The Changes will be implemented from 2022 - 2023 academic year onwards.

MEMBER	NAME & DESIGNATION	SIGNATURE
Head of the Department (Chairman)	Dr. Rekha Kandula Head of the Department	
Faculty Members	Dr. Rekha Kandula Head of the Department	
	Mrs. Nikitha Thanagala Sr. Lecturer	
Subject Expert (University Nominee)	Prof.G.Sudhakar Professor	
Subject Experts (from outside the parent university)	Sri. M. Pradeep Sr. Lecturer	
	Dr.K. Vasudha Sr. Lecturer	
Representative Member From Industry / Corporate / Allied Area relating to placement	Sri.S.Prasad Visakhapatnam	
Member from Alumni	Mr. Lokesh Junior Research Fellow(HCU)	
Coordinator, Academic Council	Dr. P. Latha Academic coordinator	
Chairperson, Academic Council	Dr. I. Vijaya Babu Principal	

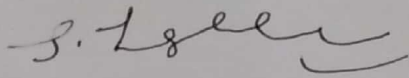
BOS MINUTES ADOPTED

The Board of Studies of the Department of BIOTECHNOLOGY met on --30.09.2022 under the Chairmanship of Dr. I. Vijaya Babu and resolved the following:

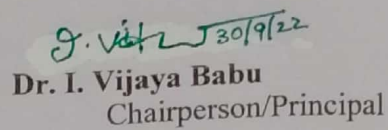
- 1) To ratify by approval the Choice Based Credit System as per the Staff Councils proceedings commencing from the academic year 2022 – 2023 for the 1st Year Degree batch of 2022 – 2023.
- 2) To ratify by approval the modified syllabus for the 1st Year B.Sc. Degree course in Biotechnology (Biotechnology, Botany and Chemistry & Microbiology, Biotechnology and Chemistry groups). The modified syllabus is oriented in such a fashion that it caters the needs of the students to meet the present-day job employability and to develop professionalism in the field of Biotechnology.
- 3) To ratify by approval semester mode pattern of examinations for the 1st Year students Further to approve by ratification the model question papers submitted by the concerned faculty members for 1st, 2nd, 3rd, 4th, 5th and 6th semesters for Biotechnology, Botany and Chemistry & Microbiology, Biotechnology and Chemistry groups. Out of 100 marks in each semester, 75 marks are for theory external examination and 25 marks for internal assessment of which 20 marks are provided for evaluation of conducting and taking average of two mid semester examinations and 5 marks are fixed for assignments. Practical examinations will be conducted by the external examiners, at the end of each academic year for 100 marks.
- 4) To include Community Service project (CSP) in 2nd Semester.
- 5) To ratify by approval the 2nd and 3rd Year Biotechnology syllabus for the batch to be admitted in 2022 -2023.
- 6) To include 1st Internship in 4th Semester
- 7) To include 2nd Internship in 6th Semester
- 8) To conduct seminars, workshops, symposia, field visits and organise exhibitions etc.,so as to inculcate and create new ideology among the students.
- 9) To develop infrastructure facilities in the department and implement guidelines of the Academic Council.

- 10) To continue to teach through ICT mode of teaching and evolve techniques that are easily understood by the students and conduct remedial coaching to the below average students.
- 11) It is also resolved to establish a well-maintained laboratory for the practical purpose.
- 12) To encourage students to join JKC to equip with communication skills and improve their personality development.
- 13) To encourage students to participate in the community development activities such as Haritha Krishna Eco Club, NCC and NSS.

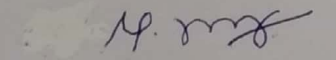
Signed and approved by



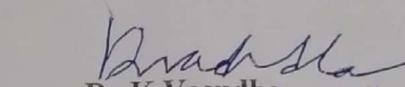
Prof. G. Sudhakar
Subject Expert
(Univ. Nominee)



Dr. I. Vijaya Babu
Chairperson/Principal

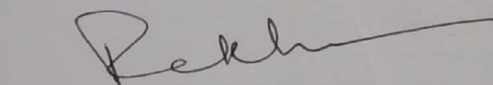


Mr. M. Pradeep
Subject Expert
(from Affiliated College)



Dr. K. Vasudha
Subject Expert
(from Affiliated College)

Dr. P. Latha
Academic Coordinator



Dr. K. Rekha
Head of the Department
Dept. of Biotechnology

SEMESTER VI
Certificate Course – MUSHROOM CULTURE

UNIT I: Introduction to Mushrooms:

12 Hrs

- 1.1 What are Mushrooms.
- 1.2 Magnitude of Mushroom Species.
- 1.3 Ecological Importance of Mushrooms.
- 1.4 Collection and Classifications of Mushrooms.
- 1.5 Problems in Cultivation in Developing Countries.
- 1.6 Prospects for Mushroom Cultivation in Developing Countries.

UNIT II: The Nutritional Attributes and Medicinal Values of Edible Mushrooms: 6 Hrs

- 2.1 Nutritional Attributes.
- 2.2 Medicinal Mushrooms.
- 2.3 General Considerations.

UNIT III: Substrated and Mycelial Growth and Culture Preservation and Effects of Environment, Nutritional and Chemical Factors.

12 Hrs

- 3.1 General Nutritional Requirements for Mushroom Growth.
- 3.2 Preparation of Substrate.
- 3.3 Development of Fruiting Bodies.
- 3.4 Environmental Factors and Fruiting.
- 3.5 Nutritional Factors and Fruiting.
- 3.6 Chemical Factors and Fruiting.

UNIT IV: Mushroom Formation: Effect of Pests and Diseases in Mushroom Cultivation:

12 Hrs

- 4.1 Viral Diseases.
- 4.2 Bacterial Diseases.
- 4.3 Fungal Diseases.
- 4.4 Nematode Diseases.
- 4.5 Insect Diseases.

4.6 Activity of Mites in Mushroom Cultivation.

18 Hrs

UNIT V: Type Study:

5.1 *Volveriella* – A High Temperature Cultivated Mushroom.

Dr. V.S. Krishna Government Degree College (A)
Department of Biotechnology
SEMESTER VI
Certificate Course
(MUSHROOM CULTIVATION)

Time: 3 hrs

Max Marks: 100

Section – A

Answer ALL questions

5×20 = 100 Marks

1. a) Give the Prospects for Cultivating Mushrooms in Developing Countries.
OR
b) Briefly give the Economic Importance of Mushrooms.
2. a) Give the Medicinal Values of Mushrooms.
OR
b) Give the Nutritional Values of Mushrooms.
3. a) How is Substrate Prepared for Mushroom Culture?
OR
b) What are the effects of Various Chemical Factors on Fruiting Bodies of Mushrooms?
4. a) Give the Various nematode Diseases in Mushroom Cultivation.
OR
b) What are the Insect Diseases that Destroy the Crop of Mushrooms?
5. a) How is Substrate Prepared for the Cultivation of *Volvariella*?
OR
b) What are the Various Diseases of *Volvariella*?

DR. V.S. KRISHNA GOVT. DEGREE COLLEGE (A), VISAKHAPATNAM
III B.Sc. BIOTECHNOLOGY, SEMESTER VI
COURSE VI – MUSHROOM CULTURE
BLUE PRINT FOR QUESTION PAPER SETTER

TIME: 3HRS

MAX MARKS: 100

UNIT NO. & NAME	ESSAY ANSWER QUESTIONS 8 MARKS	MARKS ALLOTTED TO THE UNIT
UNIT I	02	40
UNIT II	02	40
UNIT	02	40
UNIT IV	02	40
UNIT V	02	40
Total No. of Questions	10	10
TOTAL MARKS INCLUDING CHOICE	200	200

- NOTE: 1. The Question paper setters are requested to kindly adhere to the format given in the table.**
- 2. The Question paper setters are also requested to set the questions in the following way:**
- a. 80% of questions – memory and understanding based.**
 - b. 20% of questions – Creativity, application and skill based.**



Dr. V. S. Krishna Govt. Degree College (A)

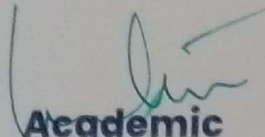
(NAAC ACCREDITED 'A' GRADE INSTITUTION & NODAL RESOURCE CENTRE)
MADDILAPALEM, VISAKHAPATNAM-530013. ANDHRA PRADESH

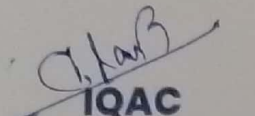


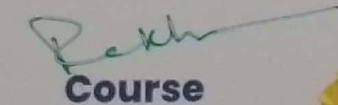
Value Added Course Certificate

2022 to 2023.


This is to certify that Mr./Miss Y. Asiri Naidu of III B.Sc BT.B.C has successfully completed the Value Added Course in Mushroom Cultivation with Regd No. E20204001 Organized by the Department of Biotechnology in collaboration with..... during year 2022 to 2023. He/She has passed the course with 'A' grade.


Academic
Coordinator


IQAC
Coordinator


Course
Coordinator




PRINCIPAL
Dr. V.S. Krishna Govt. Degree College(A)



Dr. V. S. Krishna Govt. Degree College (A)

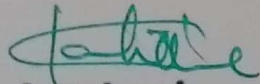
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MADDILAPALEM, VISAKHAPATNAM-530013. ANDHRA PRADESH



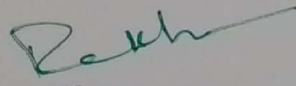
Value Added Course Certificate

2022 to 2023


This is to certify that Mr./Miss S. Swathi Rajeswari of
U B.Sc BI.B.C has successfully completed the Value Added Course in Mushroom cultivation
with Regd No. E20204028 Organized by the Department of Biotechnology in
collaboration with..... during year 2022 to 2023. He/She has passed the course with
'A' grade.


Academic
Coordinator


IQAC
Coordinator


Course
Coordinator




PRINCIPAL
Dr. V.S. Krishna Govt. Degree College(A)



Dr. V. S. Krishna Govt. Degree College (A)

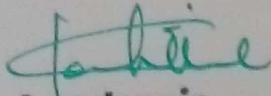
(NAAC ACCREDITED 'A' GRADE INSTITUTION & NODAL RESOURCE CENTRE)
MADDILAPALEM, VISAKHAPATNAM-530013. ANDHRA PRADESH

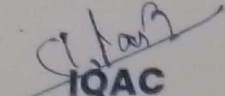


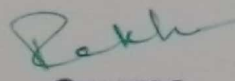
Value Added Course Certificate

2022 to 2023

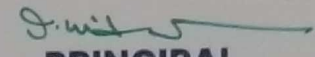
This is to certify that Mr./Miss D. kisan of
B.Sc MB:BT:C has successfully completed the Value Added Course in Mushroom cultivation
with Regd No. E20203006 Organized by the Department of Biotechnology in
collaboration with..... during year 2022 to 2023. He/She has passed the course with
'A' grade.


Academic
Coordinator


IQAC
Coordinator


Course
Coordinator




PRINCIPAL
Dr. V.S. Krishna Govt. Degree College(A)

01-02-2023 to 31-03-2023

BSc. BTBC

2022-23

Mushroom culture.

Sem - VI.

S.No.	Name of the student	Id. Number.	Marks obtained
1.	Y. Asirinaidu	E20204001	43
2.	S. Jyothsna	E20204005	41
3.	P. Kamaraju	E20204006	44
4.	V. Mahalaxmi	E20204007	46
5.	K. Mounika	E20204009	40
6.	N. parankumar	E20204010	38
7.	S. priyanka	E20204011	46
8.	A. Saijyothi	E20204012	42
9.	N. Sundar david	E20204018	43
10.	K. Babuji	E20204021	40
11.	L. praveen kumar	E20204023	37
12.	M. sumitha	E20204027	46
13.	S. Swathisajewari	E20204028	48
14.	B. Taharisha	E20204029	43
15.	V. vimala	E20204030	48

BSc: MBBTC

2022-23

Sem-VI.

S.No.	Name of the student	Id. Number	Marks obtained
1.	M. Chandana Lalitha Priya	E20205003	48
2.	K. Deepika	E20205004	44
3.	D. Kiran	E20205006	42
4.	D. Likitha	E20205007	45
5.	P. Madhan	E20205008	46
6.	P. Poornima	E20205013	40
7.	P. Rakesh	E20205015	38
8.	B. Shreya Priya	E20205017	39
9.	B. Sony Deekshitha	E20205018	41
10.	B. Tejitha	E20205019	42
11.	Y. Vyasa	E20205023	44
12.	A. Divya	E20205026	46
13.	R. Saikumar	E20205029	41
14.	M. Uma	E20205030	38
15.	K. Vaishnavi Sofia Venkat	E20205020	40

