

**SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S
SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR
UG Department of Microbiology
Skill Based Certificate Course: Fruit Processing & Wine Technology
Session 2022-2023
Course Coordinator Report**

Department of Microbiology, S.S.E.S.A's Science College, Congress Nagar ,Nagpur has run the Skill based certificate course on "Fruit Processing & Wine Technology". A total of 20 students from the BSc First Year were admitted to the course having theory as well as practical classes. A guest lecture on this course was conducted under the chairmanship of Officiating Principal Prof. M.P. Dhore, Skill based course College-Coordinator- Prof. AtulBobdey and Skill Course Coordinator Dr.PranitaGulhane. The lecture was on Fruit processing and Wine technology & related topics. This skill course helps to develop skills for the efficient production of jam, jelly and wine. It also helps to inculcate learning and earning spirit among students. More over,by processing raw agricultural products, the food processing sector is able to increase their value, resulting in higher returns for farmers and rural communities, thereby contributing to the Prime Minister's vision of doubling farmers'income.Wine making involves a wide range of microbiota that greatly influences the quality of wine and may cause negative attributes of some wines. Thus, the detection, Identification, and characterization of the wine microbiome,including genera,species,strains,and metabolites involved, is of crucial importance. This course helps to carry out large- scale production of jam, jelly and wine for commercial use. After successful completion of the course, the examination was conducted by offline mode with Multiple Choice Question- Objective mode . Certificates of qualifying the exam were distributed to the exam qualified students.

Action Taken: A skill development course in Fruit Processing and Wine Technology is designed to equip participants with the knowledge and practical skills needed to work effectively in the fruit processing and wine making industries.



Dr.PranitaGulhane
SkillBasedCourseCoordinator



*On the Occasion of 125th Birth Year Celebration of
Dr. Panjabrao alias Bhausaheb Deshmukh,
Centenary Year Celebration of R.T.M. Nagpur University
& National Science Day*

**DEPARTMENT OF MICROBIOLOGY & BIOTECHNOLOGY,
SCIENCE COLLEGE, NAGPUR**

Organizes

Intercollegiate Workshop

On

Intellectual Learning Strategies & Skill Development

By

Dr. Sarita Mowade

Entrepreneur
SS Technovision & Ecosolutions
Nagpur

Dr. Sanjeev Patankar

National Coordinator
Microbiologists Society
India

Dr. Sunil Kokane

Product Specialist
HiMedia Laboratories Pvt. Ltd.
Mumbai

Participants: U.G./P.G. Science
Students

Venue: Conference Hall

Date: 04/03/2023
Time: 11.00 AM onwards

Registration Link:
<https://forms.gle/Ffk7vCkBSxodgTBF6>

Registration Fees: Rs. 200/-

Contact: 9096039162

Topics Covered

- Biofertilizers & Biopesticide Production Process
- Opportunities in Fruit Processing & Wine Technology
- Immunodiagnosics & Molecular Biology Techniques

Dr. Pranita Gulhane

Convener

Prof. Atul Bobdey

Coordinator

Prof. Mahendra Dhore

Chairman & Principal

Organizing Committee

Dr. Manpreet Kour

Ms. Madhuri Walvekar

Ms. Shivani Gohane

Ms. Mayuri Bhad

Ms. D. Deepthi Hynal

Dr. Priya Fuke

Ms. Sanchari Sarkar

Dr. Sapna Baghel



Join: <https://chat.whatsapp.com/Hri8Ufuwsx6JuwSt9EDwk3> Website: <http://www.sscnagpur.ac.in>

Intercollegiate workshop on “Intellectual Learning Strategies & Skill Development” on the occasion of 125th Birth Year Celebration of Dr. Panjabrao alias Bhausaheb Deshmukh, Centenary Year Celebration of R.T.M. Nagpur University & National Science Day was organized by Department of Microbiology, S.S.E.S.A’s Science College, Nagpur on 4th March, 2023. The workshop was conducted under the chairmanship of Hon’ble Prof. Mahendra P. Dhore, Principal, Science College, Nagpur, Coordinator-Respected Prof. Atul D. Bobdey and Convener-Dr. Pranita B. Gulhane. Verbal Welcome to

Hon'ble Dignitaries, GuestSpeaker & Participants was doneby Dr.Priya Fuke ma'am. The Presidential address was by Hon'ble Principal Prof. Mahendra Dhore Sir.

The workshop was conducted by **Dr. S. D. Patankar, Ex- Principal, SS Jaiswal College, Arjuni Morgaon**. Total 20 students were enrolled for the course. Questionnaire sessions were also conducted after the lecture. A total of 165 students have participated for the same and expressed the creativity in it. Vote of thanks was given by Ms. Deepthi Hynal ma'am. All the staffs of the organizing committee contributed for the success of t he programme. Theory and Practical exam were conducted in offline mode having 50 M.C.Q. questions for theory exam were given while 50 marks practical exam wasconducted. Internal assessment was done on the basis of regularity of students and visit to Mah atma Gandhi Institute for Rural Industrialization (MGIRI), Wardha on 04thNovember2022.



Hon'blePrincipalSirl felicitatingtheResourcepersoninSkillcourseworkshopdt.04/03/23



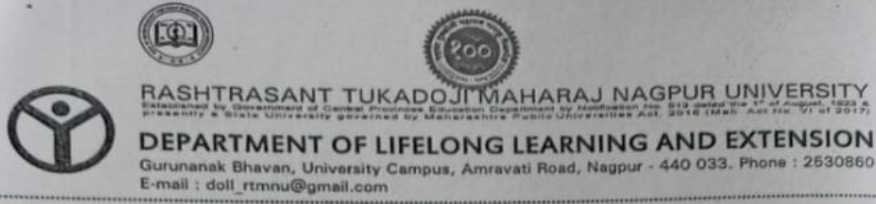
Latitude: 21.128454
Longitude: 79.082463
Elevation: 333.26±1 m
Accuracy: 10.8 m
Time: 04-03-2023 16:20
Note: Skill Workshop 04/03/2023



Pranita Gulhane

Dr.PranitaGulhane
SkillBasedCourseCoordinator

Session2022-2023



RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY
ESTABLISHED BY GOVERNMENT OF CENTRAL PROVINCES EDUCATION DEPARTMENT BY RESOLUTION No. 513 dated 17th of August, 1923 &
PRESENTLY A STATE UNIVERSITY GOVERNED BY MAHARASHTRA PUBLIC UNIVERSITIES ACT, 2016 (M.U. Act No. 91 of 2017)
DEPARTMENT OF LIFELONG LEARNING AND EXTENSION
Gurunanak Bhavan, University Campus, Amravati Road, Nagpur - 440 033. Phone : 2530860
E-mail : doll_rtmnu@gmail.com

To,
The Principal
SSES Amt's Science College, Congress Nagar, Nagpur.

No.DOLLE/ 305/22
Dated : 12.08.2022

Subject : Sanction for Conducting Short Term Courses under Jeevan Shikshan Abhiyan on No Grant Basis. (2022-23)

Sir/Madam,

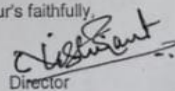
With reference to your proposal for conducting Short Term courses indicated below under Jeevan Shikshan Abhiyan of this Department, this is to inform you that your proposal has been accepted and your College has been granted permission to conduct the course on the following conditions:

Details of the Course

Sr. No.	Name of the Course	Name of Course Coordinator	Duration	Credit	No. of Candidates to be admitted	Fees to be Charged per Student	Fees to be Deposited With the Deptt.
1	Certificate Course in Environment and Water Management.	Prof. Yogita K. Meshram	43 hrs. (15Weeks)	2	20	1500/-	10%
2	Certificate Course in Ground Water Exploration.	Ms. P. B. Zamarkar	45 hrs. T- 36 hrs. P- 09 hrs.	2	40	1500/-	10%
3	Certificate Course in Mushroom Cultivation.	Dr. R. H. Mahakhode	40 hrs. T- 20 hrs. P- 20 hrs.	2	40	1500/-	10%
4	Certificate Course in Immunology and Immunodiagnosics.	Dr. Deepthi Hynal	44 hrs. T- 36 hrs. P- 08 hrs.	2	20	1500/-	10%
5	Certificate Course in Fruit Processing and Wine Technology.	Dr. Pranita B. Gulhane	45 hrs. T- 37 hrs. P- 08 hrs.	2	20	1500/-	10%

Rules & Regulations of this Department regarding these courses should be strictly followed.

- Owing to Covid-19 situations all the norms of Central & State Government and instructions by R.T.M. Nagpur University, Nagpur should be strictly followed.
 - This sanction is valid for this particular Batch only.
 - Fees for the course should be charged as per the norms prescribed.
 - Expenditure on the course should be incurred as per norms.
 - Course should be started within a Month from the date of sanction.
 - Course should be started within a Month from the date of sanction. Please communicate your acceptance within a month and submit the Initial Report
 - Submit the List of Students admitted in the excel format attached herewith.
- Also send a soft copy in CD/Pen drive.

Your's faithfully,

Director

**SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S
SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR
UG Department of Microbiology**

NOTICE

Date: 30/08/2022

All the students are informed that **U.G. Department of Microbiology** runs **Skill Based Certificate Course: Fruit Processing & Wine Technology** for the session 2022-23. Interested students of B.Sc. are requested to provide their names to the course Coordinator Dr. Pranita Gulhane or before 05/9/2022.



Dr. Pranita Gulhane
Skill Based Course Coordinator



U.G.DEPARTMENT OF MICROBIOLOGY, SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR

Accredited with CGPA of 3.51 at 'A+' Grade by NAAC, Bangalore
A College with Potential for Excellence An Institutional
Member of APQN Recognized Center for Higher Learning &
Research A Mentor College under Paramarsh Scheme of
UGC, New Delhi A Mentor College under Paris Sparsh
Scheme of Maharashtra State

Skill Based Certificate Course for the Session 2022-23 on Fruit Processing & Wine Technology

Skill Based Certificate Course: Fruit Processing & Wine Technology

Course Co-Ordinator: Dr. Pranita Gulhane

Course Introduction

Fruit Processing & Wine Technology course offers an in-depth exploration of the techniques, technologies, and principle involved in fruit processing and wine production. Students will gain hands-on experience and theoretical knowledge essential for careers in these industries, focusing on the science and art behind creating high-quality fruit products and wines.

Course Objectives

1. To develop skill for the efficient production of Wine.
2. To inculcate learn and earn spirit among students about fruit processing.
3. To increase the survival rate of many communities for they solely depend on wine production.
4. To carry out large scale production of dietary supplements for direct consumption of processed fruits.
5. To develop awareness among people to increase the shelf life of perishable fruits.

Registration Date: 05/09/2022

Prof. Atul Bobdey
Coordinator
Dept. of Microbiology

Prof. Mahendra Dhore
Principal
Science College, Nagpur

Dr. Pranita Gulhane
Course-COordinator
Skill Based Course

UG Department of Microbiology

Skill Based Certificate Course: Fruit Processing & Wine Technology (Session 2022-2023)

Course Co-Ordinator: Dr. Pranita Gulhane

Introduction

Fruit Processing & Wine Technology course offers an in-depth exploration of the techniques, technologies, and principles involved in fruit processing and wine production. Students will gain hands-on experience and theoretical knowledge essential for careers in these industries, focusing on the science and art behind creating high-quality fruit products and wines.

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- **Instructional Strategies:** Theory class, Practical, Video clips, Models etc.
- **Evaluation Strategies:** Oral discussions and Final MCQ examination

Course Outcomes:

By the end of this course, participants will be equipped with the comprehensive knowledge and practical skills needed to pursue careers in the fruit processing and wine making sectors. They will be prepared to contribute effectively to production, quality control, research and development, and management roles within these dynamic industries.

Duration of course: Fifteen Weeks



Pranita Gulhane

Dr. Pranita Gulhane
Skill Based Course Coordinator

Module Skill Based Certificate Course

Fruit Processing & Wine Technology

(Session 2022-23)

The skill base certificate course syllabus for B.Sc. I, II and III appear students. Fifteen weeks' certificate course in FRUIT PROCESSING & WINE TECHNOLOGY. The examination of course shall comprise of one theory paper of three hours carries 50 marks and practical of one- hour duration carries 50 marks. Internal assessment for the course based on one theory paper of 10 marks shall be conducted by university approved teachers. Internal assessment marks should be included in minimum passing marks of the students. Candidates are expected to pass separately in theory, internal assessment and practical examination.

Students require 40% marks in theory for passing including internal marks. Separate passing in practical examination is required, assignment submission is necessary to get internal marks. The structure of syllabus for certificate course along with distribution of marks is also displayed in the following table.

Course	Theory papers and Practical	Marks			Total marks
		Theory	Internal assessment	Practical	
Certificate course in Fruit Processing & Wine Technology	1.Theory paper – Fruit processing and Wine technology 2.Practicals based on course	50	10		100
				40	
		Grand total			100

*Internal assessment–Based on student's attendance and performance during unit test exam and assignment. Based on assignment plus activity conducted on practical, the Internal Assessment marks are given for theory and practical. Objective mode of examination was conducted.



Dr. Pranita Gulhane
Course Coordinator



Dr. Amitabh Halder

IQAC Coordinator
Internal Quality Assurance Cell
(IQAC)

S. S. E. S. A. Science College
Congress Nagar, Nagpur.



Prof. Mahendra Dhore

Principal
Principal
S. S. E. S. Amravati's
Science College, Nagpur.

SYLLABUS

THEORY DURATION - 02 Hrs per week
 60 Hrs per Session
 EXAMINATION HRS. - 03 Hrs
 MAX. MARKS 80

APER I - Wine Technology, Wine Production and Wine Microbiology

CHAPTER	CONTENTS
	UNIT I
1 <i>Survey</i>	<p>Introduction and establishment of vineyard garden.</p> <ul style="list-style-type: none"> - Climatic requirement for grapes cultivation. - Selection of soils, preparation of land - vineyard layout.
2	<p>Propagation and practices in vineyard garden.</p> <ul style="list-style-type: none"> - Propagation techniques-single root method and root stock method. - Nutritional requirement of grape wine, optimum of PGR in propagation)
3 <i>plant protection</i>	<p>Plant protection</p> <ul style="list-style-type: none"> - Important diseases and pest of grapes. - Integrated pest management.
4	<p>Maturity indices preharvesting method and handling</p> <ul style="list-style-type: none"> - Maturity indices of Grape for wine industry. - Suitable methods of harvesting, precooling, grading, packing and transportation of grapes. - Methods of increasing sugar content in grapes.
5	<p>Shelf-life of fruits</p> <ul style="list-style-type: none"> - Criteria determining shelf-life of grapes.

CHAPTER	CONTENTS
	UNIT II
1	Introduction to Wine Technology - Wine is a fermented product. - Wine history ("old" and "new" world wine). - Classification of Wine - Wine quality (vintage, Terroir). - Wine and health (resveratrol, French paradox).
2	Transformation Grapes into Wine - Grape maturity. → Wagwaan. - Pre-fermentation actions (enzymes, skin contact...) - Artificial inoculation (yeast selection). - Alcoholic fermentation. → chonali. - Malolactic fermentation. → simtan.
3	Wine production flow charts : - White wine. - Red wine. - Rosé wine. lively - Sparkling wine. → Strong wine from southern Spain - Port and sherry wine.
4	Wine fermentation technology - Use of Sulphur-di-Oxide. (pH influence). → Uditece

location of city with harbour
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CHAPTER	CONTENTS
UNIT III	
1	Vintage and processing of grapes - <i>Khisen, vintage & processing</i>
2	Pre fermentation and white wine production - <i>Prithvi, Khan</i>
3	Red wine-making - <i>Chitambar</i>
4	Post fermentation measures - <i>Sakshi</i>
5	Post Fermentation process - <i>Sakshi, Santosh</i>

CHAPTER	CONTENTS	MARKS	HOURS
UNIT IV			
1	- Chemical nature, origin and consequences of the Organoleptic defects → <i>Prithvi, Pranay</i>		
2	- The colloidal state and tartrate stability in wine →		
3	- Clarification and Filtration process → <i>Sohane</i>		
4	- Fining and fining agents → <i>Sneha</i>		
5	- Fining of wines → <i>Chetram</i>		

10

5m.

CHAPTER	CONTENTS
UNIT V	
1	Microbial spoilage - Diagnosis of spoilage - Identification of wine spoilage micro-organisms.
2	Oak and wine - <i>Sida Prasad, Aishwarya</i>

Practical:

1	Proximate composition of fruit juices: a) pH – by pH meter. b) Acidity – by titration. c) Moisture – Oven drying. d) Sugar – AOAC.
2	Preparation of soft drinks : a) Lemon water. b) Barley water (1)
3	Production of raisins from grapes (2) → Pg.No. 5
4	Production of organic manures from pomace of fruit industry
5	Procedure for preparation of jelly from any two fruits (apple, orange, pineapple, mixed fruits, mango, papaya etc.) → (4)
6	Preparation of marmalade → (5)
7	Preparation of lemon syrup. → (8) Pg.No. 7
8	Preservation of apple juice. → (6)

Note

1	A visit to the winery: Report submission
2	Seminar on wine microbiology (20) min / student



Pranita Gulhane

Dr. Pranita Gulhane
Skill Based Course Coordinator

UG Department of Microbiology
Certificate Course in Fruit Processing and Wine Technology
Session 2022-23
Teaching Plan (15 weeks)

Weeks	Day	Content
		Theory
1	1.1(01)	Introduction and establishment of vineyard garden
	1.2(02)	Propagation and practices in vineyard garden
	1.3(03)	Propagation techniques-single root method and root Stock method
2	1.4(04)	Plant protection
	1.5(05)	Important diseases and pest of grapes
	1.6(06)	Integrated pest management
3	1.7(07)	Maturity in dices Pre-harvesting method and handling
	1.8(08)	Suitable methods of harvesting, precooling, grading, Packing and transportation of grapes
	1.9(09)	Shelf-life of fruits
4	1.10(10)	Introduction of Wine Technology
	1.11(11)	Classification of Wine
	1.12(12)	Transformation of grapes in to wine
5	2.1(13)	Wine fermentation technology
	2.2(14)	Pre-fermentation actions
	2.3(15)	Fruit juices squashes and cordials
6	2.4(16)	Staining, filtration and clarification
	2.5(17)	White wine
	2.6(18)	Red wine
7	2.7(19)	Rose wine
	2.8(20)	Sparkling wine
	2.9(21)	Portand Sherry Wine
8	2.1(22)	Fruit juice: Preservation and carbonation
	2.11(23)	Layout plan of a pomegranate juice plant
	2.12(24)	Fruit beverages: preparation and preservation
9	3.1(25)	Staining, filtration and clarification
	3.2(26)	Fruit juice: Preservation and carbonation
	3.3(27)	Citrus fruit juices
10	3.4(28)	Scenario of citrus production in India

	3.5(29)	Various products from citrus fruits. Self life monitoring of citrus juice
	3.6(30)	Carbonated beverages from citrus
11	3.7(31)	Citrus by-products: manufacture of citric acid, orange oil, marmalades, vinegar, pectin etc.
	3.8(32)	Evaluation of banana for various product
	3.9(33)	Composition of banana fruit and its nutritive value
12	3.10(34)	Extraction of protein from banana leaves
	3.11(35)	Cattle feed from banana fruits
	3.12(36)	Utilization of juice of banana plant for energy Production
13	3.13(37)	Production of fiber from pseudo-stem of banana
		Practical
	1(38)	Proximate composition of fruit juices: a) pH- by pH meter. b)Acidity-by titration c)Moisture-oven drying. d)Sugar-AOAC
	2(39)	Preparation of soft drinks: a) Lemon water b) Barley water
14	3(40)	Production of raisins from grapes.
	4(41)	Production of organic manures from pomace of fruit Industry
	5(42)	Procedure for preparation of jelly from any two fruits (apple, orange, pineapple, mixed fruits, mango, papaya etc.
15	6(43)	Preparation of marmalade
	7(44)	Preparation of lemon syrup
	8(45)	Preservation of apple juice



Pranita Gulhane

Dr.PranitaGulhane
SkillBasedCourseCoordinator

UG Department of Microbiology
Skill Based Diploma Course-
Fruit Processing & Wine Technology
Time Table

w.e.f.05/09/2022

Day	Theory
Mon&Tue	(BiotechLab)Theory9.00PM10.00 PM
Wed&Thu	(BiotechLab)Theory9.00PM10.00 PM
Fri&Sat	(BiotechLab)Practical,10.00PM-12.00PM



Dr.PranitaGulhane
SkillBasedCourseCoordinator

ATTENDANCE SHEET (2022-23)

S.S.E.S.A's Science College, Congress Nagar, Nagpur
Skill Course Fruit Processing & Wine Technology

Class: Fruit Processing & Wine Technology
Theory/Practical:

Month: Sep to Nov

Name of Lecturer: Dr. Ravindra Bultane

Sr. No	Name of Student	6/9/22	7/9/22	8/9/22	12/9/22	13/9/22	14/9/22	15/9/22	19/9/22	20/9/22	21/9/22	22/9/22	26/9/22	27/9/22	28/9/22	29/9/22	3/10/22	4/10/22	10/10/22	11/10/22	12/10/22	13/10/22	14/10/22	15/10/22	16/10/22	17/10/22	18/10/22	19/10/22	20/10/22	21/10/22	22/10/22	23/10/22	24/10/22	25/10/22	26/10/22	27/10/22	28/10/22	29/10/22							
1.	Shreya Gujar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P						
2.	Dimple Udani	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P					
3.	Mohit Khade	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P				
4.	Ambaleena Dhoke	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P				
5.	Raj Sonone	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P				
6.	Raj Rajkarosiya	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
7.	Shravani Saraf	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
8.	Tanushree Panekar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
9.	Anshu Meshram	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
10.	Bhagyashree shahu	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P			
11.	Nikita Salve	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
12.	Himanshi Atrani	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
13.	Astha Bhanage	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
14.	Gauri Nasare	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
15.	Ashlesha Jadhav	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
16.	Yukti Talmale	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
17.	Neha Lonare	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P		
18.	Aparna Kurrewar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
19.	Radha Sonkuwar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
20.	Kshiti Kamble	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



Ravindra Bultane
Dr. Ravindra Bultane

Educational Tour Report

Department of Microbiology

Fruit Processing & Wine Technology Skill Based Course

Visit of Skill based certificate course students was carried out at Mahatma Gandhi Institute for Rural Industrialization (MGIRI), Wardha on 04th November 2022. Internal assessment of those students was carried out on the basis of regularity of students and the educational tour visit at MGIRI, Wardha. Many Skills based mini projects regarding manufacturing of herbal products ,use of cotton fibers yarning for clothes-making, bamboo craft as well as hand on training of sophisticated laboratory equipment's. Total 67 students visited the same with great enthusiasm.



MGIRI, Wardha Visit by Skill course students
dt04/11/22



Pranita Gulhane

Dr. Pranita Gulhane
Skill Based Course Coordinator

**SHRI SHIVAJI EDUCATION SOCIETY AMRAVATI'S
SCIENCE COLLEGE, CONGRESS NAGAR, NAGPUR**

UG Department of Microbiology

EXAMINATION NOTICE

Date: 24/12/2022

All the students enrolled for **Skill Based Course: Fruit Processing & Wine Technology** for the session 2022-23 are informed that Theory and Practical Exam of the course is scheduled on 28/12/2022. All the appearing students are informed to remain present in Biotechnology Laboratory at 10:30 AM–11:30 AM for Theory Exam and at 12:30 PM–5:30 PM for Practical Exam.



Dr. Pranita Gulhane
SkillBasedCourseCoordinator

Skill Based Certificate Course- Fruit Processing & Wine Technology
List of the Students
(Session 2022-23)

Sr. No.	Name of Student	Signature
1)	Shreya Gujar	<i>Shreya Gujar</i>
2)	Dimple Udan	<i>Dimple Udan</i>
3)	Mohit Khade	<i>Mohit Khade</i>
4)	Ambaleena Dhoke	<i>Ambaleena Dhoke</i>
5)	Raj Sonone	<i>Raj Sonone</i>
6)	Raj Rajkarosiya	<i>Raj Rajkarosiya</i>
7)	Shravani Saraf	<i>Shravani Saraf</i>
8)	Tanushree Panekar	<i>T. Panekar</i>
9)	Anshu Meshram	<i>A. Meshram</i>
10)	Bhagyashree Shahu	<i>B. Shahu</i>
11)	Nikita Salve	<i>N. Salve</i>
12)	Himanshi Atram	<i>Himanshi Atram</i>
13)	Astha Bhangе	<i>Astha Bhangе</i>
14)	Gauri Nasare	<i>Gauri Nasare</i>
15)	Ashlesha Jadhav	<i>Ashlesha Jadhav</i>
16)	Yukti Talmale	<i>Yukti Talmale</i>
17)	Neha Lonare	<i>Neha Lonare</i>
18)	Aparna Kurrewar	<i>Aparna Kurrewar</i>
19)	Radha Somkuwar	<i>Radha Somkuwar</i>
20)	Kshitij Kamble	<i>Kshitij Kamble</i>
21)	Reeta P. Bhawalkar	<i>Reeta P. Bhawalkar</i>
22)	Sahil P. Titarmare	<i>Sahil P. Titarmare</i>
23)	Sakshee Shahu	<i>Sakshee Shahu</i>
24)	Saloni S. Dhole	<i>Saloni S. Dhole</i>
25)	Snehal M. Patle	<i>Snehal M. Patle</i>
26)	Sushant Nimbhorkar	<i>S. Nimbhorkar</i>



Pranita Gulhane

Dr. Pranita Gulhane
Skill Based Course Coordinator

Rashtrasant Tukadoji Maharaj Nagpur University

Exam Name: Skill based Certificate Course Examination, Summer-2022-23

Name of Subject: Fruit Processing & Wine Technology

Medium: English

Marks Obtained:

Centre Name: Science College Congress Nagar, Nagpur

Name of Student:

Class:

Group:

Duration: 1hr

MaxMarks: 50

Note:

- 1) Each Question Carries 2 Marks.
- 2) Each Question is Compulsory.
- 3) No Negative Marking

1. Suitable temperature for cultivation of grapes is

- a) 15-40oc
- b) 20-20oc
- c) 10-40oc
- d) 30-40oc

Ans: a) 15 -40oc

2. What is the moisture content of dried raisins?

- a) 10-12%
- b) 14-16%
- c) 24-28%
- d) 28-34%

Ans: b) 14 -16%.

3. Major maturity indices of tablegrapes are

- a) Sugar content
- b) Titratable acidity
- c) pH
- d) all of the above

Ans: d) all of the above

4. Which of the following is not a criterion to determine life of grapes?

- a) Maturity at harvest
- b) Rapid pre-cooling
- c) Low-moisture content
- d) An effective Fumigation

Ans: c) Low-moisture content

5. Grapes are most susceptible to
- a) Viral Diseases
 - b) Bacterial Diseases
 - c) Fungal Diseases
 - d) Helminth Diseases

Ans: c) Fungal Diseases

6. Time required for grape to attain maturity is:-
- a) 60-150 days
 - b) 40-90 days
 - c) 90-140 days
 - d) 100-160 days
- Ans: a) 60-150 days**

7. Carbonation of fruit juice includes addition of which gas
- a) O₂
 - b) N
 - c) H
 - d) CO₂

Ans: d) CO₂

8. The country with highest citrus production is?
- a) China
 - b) Brazil
 - c) India
 - d) Sri-Lanka

Ans: b) Brazil

9. Which state is the largest producer of grapes in India
- a) Karnataka
 - b) Tamil Nadu
 - c) Maharashtra
 - d) Andhra Pradesh

Ans: c) Maharashtra

10. Various products from citrus fruits include?
- a) Beverages
 - b) Squash
 - c) Jam
 - d) All of the above

Ans: d) All of the above

11. Bananas are an excellent source of mineral
a) Potassium
b) Sodium
c) Manganese
d) Selenium

Ans: a) Potassium

12. The average alcohol content of wine is about - a) 10%
b) 12% c) 14% d) 16%

Ans: b) 12%

13. Which of the following is better known as Brewer's or Baker's Yeast?
a) *Candida tropicalis*
b) *Trichosporon cutaneum*
c) *Saccharomyces cerevisiae*
d) *Schizosaccharomyces pombe*

Ans: c) Saccharomyces cerevisiae

14. Role of sulphur dioxide in winemaking is -
a) Reduction of pH
b) Antioxidant
c) Antiseptic
d) Both b and c

Ans: d) Both b and c

15. Bottled fruit juices bought from the market are clearer as compared to those made at home due to enzyme -
a) Streptokinase
b) Lipase
c) Hydrolyases d) Pectinase **Ans: d) Pectinase**

16. What is the primary purpose of pasteurizing fruit juices?
a) To improve flavor
b) To increase sweetness
c) To kill harmful bacteria
d) To add nutrients

17. Which process is used to extract fibers from the pseudostem of a banana plant?
- a) Retting
 - b) Decorticating
 - c) Ginning
 - d) Spinning

Ans: b) Decorticating

18. Which state in India is the leading producer of citrus fruits?
- a) Uttar Pradesh
 - b) Maharashtra
 - c) Punjab
 - d) Assam

Ans: b) Maharashtra

19. What is the primary season for citrus harvesting in India?
- a) Winter
 - b) Spring
 - c) Summer
 - d) Monsoon

Ans: a) Winter

20. What part of the banana plant is primarily used for fibre production?
- a) The fruit peel
 - b) The pseudostem
 - c) The leaves
 - d) The roots

Ans: b) The pseudostem

21. Which of the following is NOT a citrus fruit?
- a) Mandarin
 - b) Kumquat
 - c) Pomelo
 - d) Persimmon

Ans: d) Persimmon

22. Which is the largest citrus by-product industry in India?
- a) Citrus fiber
 - b) Citric acid
 - c) Orange peel oil
 - d) Orange pomace

Ans: b) Citric acid

23. Which of the following is not a by-product of citrus fruits?

- a) Citric acid
- b) Orange pomace
- c) Orange peel oil
- d) Citron

Ans: d) Citron

24. Which of the following substances is found in high quantities in banana fruit?

- a) Carotene
- b) Fructose
- c) Vitamins
- d) Minerals

Ans: b) Fructose

25. What is the process of concentrating citrus fruit pulp called?

- a) Fermentation
- b) Distillation
- c) Pressurization
- d) Carbonation

Ans: b) Distillation



Pranita Gulhane

Dr. Pranita Gulhane
Skill Based Course Coordinator



Shri Shivaji Education Society, Amravati's
SCIENCE COLLEGE
 Congress Nagar, Nagpur-12 (M.S.), India



Accredited with CGPA of 3.51 at 'A' grade by NAAC, Bangalore
 A "College with Potential for Excellence" identified by UGC New Delhi.
 Institutional Member of APQN
 Recognized Centre for Higher Learning and Research
 Mentor College under 'PARAMARSHI Scheme', UGC, New Delhi

U.G. DEPARTMENT OF MICROBIOLOGY

Skill-Based Course

Course Exam Name: Fruit Processing & Wine Technology

Name of Student:

Ambalena Dhoke

Roll No.:

Session: 2022-23

Test Date: 28/12/2022

Max. Marks: 50

Obtained Marks:

38

INSTRUCTIONS FOR FILLING THE SHEET

- 1 This sheet should not be folded or crushed
- 2 Use only blue/black ball point pen to fill the circles
- 3 Use of pencil is strictly prohibited
- 4 Circles should be darkened completely and properly
- 5 Cutting and erasing on this sheet is not allowed
- 6 Do not use any stray marks on the sheet
- 7 Do not use marker or white fluid to hide the mark

WRONG METHODS

CORRECT METHOD



Invigilator Signature

	A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D		A	B	C	D
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2	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	12	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	22	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	32	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	42	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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6	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	16	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	26	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	36	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	46	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	17	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	27	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	37	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	47	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	18	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	28	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	38	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	48	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	19	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	29	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	39	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	49	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	20	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	30	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	40	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	50	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Pranita Gulhane

Dr. Pranita Gulhane
 SkillBasedCourseCoordinator

Rashtrasant Tukadoji Maharaj Nagpur University

Exam Name: Skill based Certificate Course Examination, Summer-2022-23

Name of Subject: Fruit Processing & Wine Technology Practical Exam

Medium: English

Marks Obtained:

Centre Name: Science College Congress Nagar, Nagpur

Name of Student:

Class:

Group:

Duration: 3hr

Max Marks: 40

Q.1 To prepare jelly from any seasonal fruit.	10
Q.2 To prepare lemon syrup.	10
Q.3 Viva-Voce	10
Q.4 Practical Record	10
Total Marks	40



Pranita Gulhane

Dr. Pranita Gulhane
Skill Based Course Coordinator

**Skill Based Certificate Course-Fruit Processing & Wine
Technology
(Session 2022-23)
Mark List**

Sr.No.	Name of Student	Marks obtained out 50 (Theory)	Marks obtained out of 40 (Practical)	Marks obtained out of 10 (Internal)	Total Marks 100
1)	Shreya Gujar	AB	AB	AB	AB
2)	Dimple Udan	AB	AB	AB	AB
3)	Mohit Khade	34	39	10	83
4)	Ambaleena Dhoke	38	38	10	86
5)	Raj Sonone	30	37	10	77
6)	Raj Rajkarosiya	34	37	10	81
7)	Shravani Saraf	34	37	10	81
8)	Tanushree Panekar	32	35	10	77
9)	Anshu Meshram	34	35	10	79
10)	Bhagyashree Shahu	30	34	10	74
11)	Nikita Salve	32	36	10	78
12)	Himanshi Atram	30	35	10	75
13)	Astha Bhange	34	37	10	81
14)	Gauri Nasare	30	35	10	75
15)	Ashlesha Jadhav	32	36	10	78
16)	Yukti Talmale	32	36	10	78
17)	Neha Lonare	28	32	10	70
18)	Aparna Kurrewar	40	40	10	90
19)	Radha Somkuwar	40	40	10	90
20)	Kshitij Kamble	28	32	10	70



Pranita Gulhane

Dr. Pranita Gulhane
Skill Based Course Coordinator



Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

[Established by Government of Central Provinces Education Department by Notification No. 513 dated the 1st of August, 1923 & presently a State University governed by Maharashtra Public Universities Act, 2016 (Mah. Act No. VI of 2017)]

University Skill Development Centre
(under Board of Lifelong Learning and Extension)

Certificate

No. JSA.F.P.W.T.-04

Shri/Smt./Ku. Ambaleena Dhoke is awarded with Certificate on successful completion of the course titled Certificate Course in Fruit Processing and Wine Technology in session 2022-2023 under Jeevan Shikshan Abhiyan conducted for 45 hours from 05/09/2022 to 25/12/2022 by the Board of Lifelong Learning & Extension in collaboration with Department of Microbiology, S.S.E.S. Am's Science College Congress Nagar, Nagpur, 440412.

*He/She has passed the Examination with **A+** Grade*

Total Credits Earned : 01

Principal
SSES Am's Science College
Congress Nagar, Nagpur-12

Course Co-ordinator
SSES Am's Science College
Congress Nagar, Nagpur-12

Director
Board of Lifelong Learning
and Extension, RTMNU, Nagpur

**Shri Shivaji Education Society
Amravati's Science College, Congress
Nagar, Nagpur**

Department of Microbiology

Session 2022-2023

Skill Based Course: Fruit Processing & Wine Technology

Date: 5/09/2022-25/12/2022

Feed back Form

Que. 1) How would you rate the overall quality of the Skill Based Course: Fruit Processing & Wine Technology?

- A. Excellent
- B. Good
- C. Average

Que.2)How well did the Skill Based Course: Fruit Processing & Wine Technology content meet your expectations?

- A. Exceeded expectations
- B. Met expectations
- C. Below expectations

Que.3)How effective were the course instructor in delivering the Skill Based Course: Fruit Processing & Wine Technology?

- A. Very Effective
- B. Effective
- C. Ineffective

Que.4)How likely are you to recommend the Skill Based Course: Fruit Processing & Wine Technology to others?

- A. Very Likely
- B. Likely
- C. Unlikely

Que.5)How satisfied are you with the practical sessions of the Skill Based Course: Fruit Processing & Wine Technology?

- A. Very Satisfied
- B. Satisfied
- C. Dissatisfied



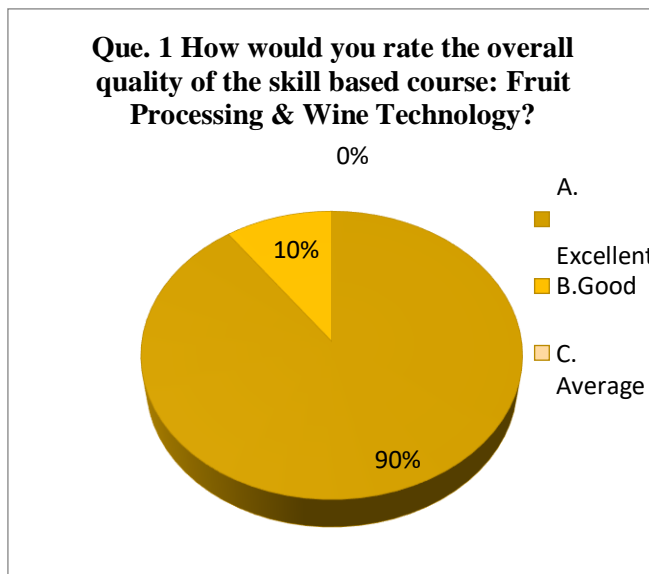
Pranita Gulhane

Dr. Pranita Gulhane
Skill Based Course Coordinator

Feedback Responses:

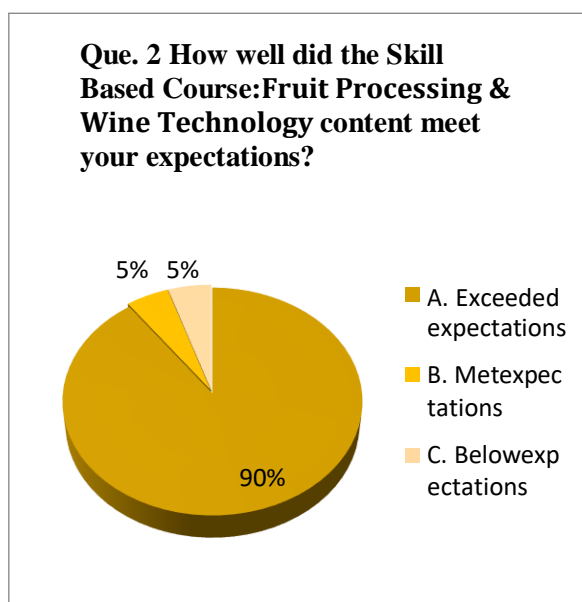
Que. 1) How would you rate the overall quality of the Skill Based Course: Fruit Processing & Wine Technology?

Rating	No. of Students	Percentage
Excellent	18	90%
Good	2	10%
Average	0	0%
Total	20	100%



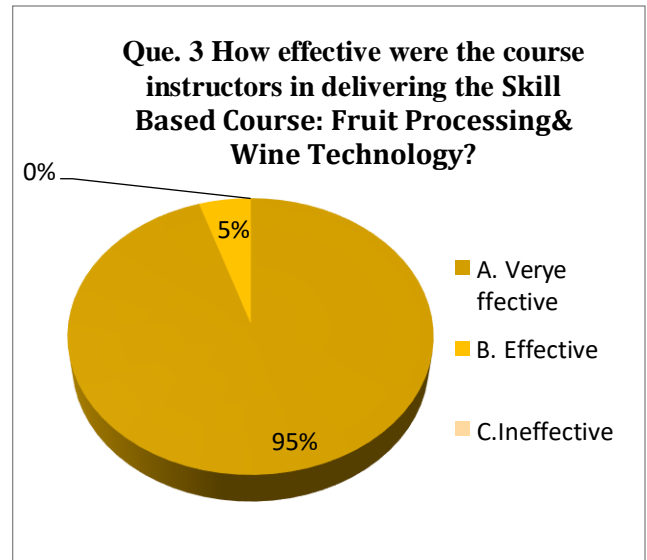
Que. 2) How well did the Skill Based Course: Fruit Processing & Wine Technology content meet your expectations?

Rating	No. of Students	Percentage
Exceeded expectations	18	90%
Met expectations	1	5%
Below expectations	1	5%
Total	20	100%



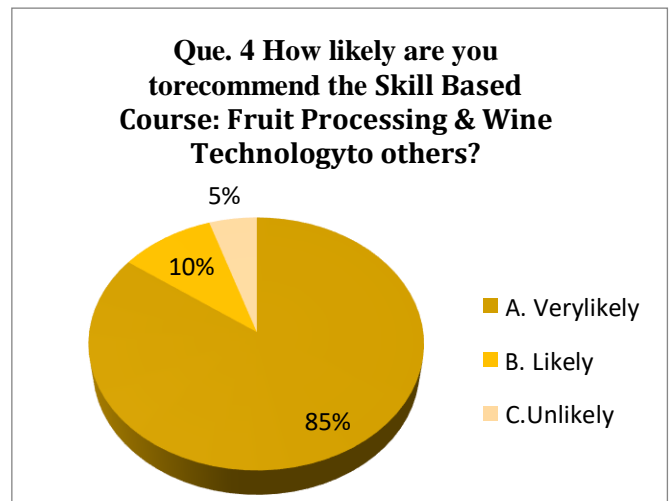
Que.3)How effective were the course instructor in delivering the Skill Based Course: Fruit Processing & WineTechnology?

Rating	No. of Students	Percentage
Very Likely	19	95%
Likely	1	5%
Unlikely	0	0%
Total	20	100%



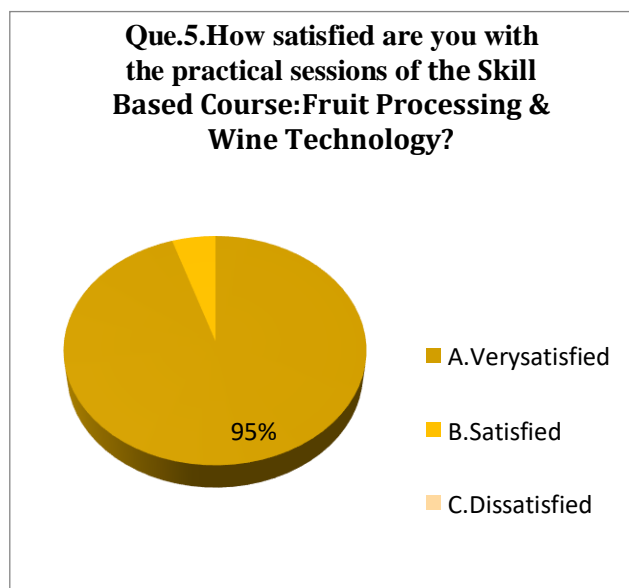
Que.4)How likely are you to recommend the Skill Based Course: Fruit Processing & WineTechnology to others?

Rating	No. Of Students	Percentage
VeryLikely	17	85%
Likely	2	10%
Unlikely	1	5%
Total	20	100%



Que.5)How satisfied are you with the practical sessions of the Skill Based Course: Fruit Processing &Wine Technology?

Rating	No. of students	Percentage
Very Satisfied	19	95%
Satisfied	1	5%
Dissatisfied	0	0%
Total	20	100%



Pranita Gulhane

Dr.PranitaGulhane
SkillBasedCourseCoordinator

Amitabh Halder

Dr. Amitabh Halder
IQAC Coordinator
Internal Quality Assurance Cell
(IQAC)
S. S. E. S. A. Science College
Congress Nagar, Nagpur.

Mahendra Dhore

Prof. Mahendra Dhore
Principal
Principal
S. S. E. S. Amravati's
Science College, Nagpur.