Sl.No. 5

KAMARAJ

COLLEGE OF ENGINEERING & TECHNOLOGY

S.P.G. Chidambaram Nadar - C. Nagammal Campus,
S.R.G.C. Nagar, K. Vellakulam - 625 701, Near VIRUDHUNAGAR, Madurai District.
Accredited by NAAC with 'A' Grade

Submitted to the SECRETARY for approval through the PRINCIPAL

BIOTECH

Book No.

Date ...12.02.2022...

SL No. 36 INDUSTRY CERTIFIED VALUE ADDED PROGRAMME — APPROVAL

- Approval may please be given to conduct 5days Value Added Programme (Industry Certified) (22/02/2022-26/02/2022) for II B.Tech BT students as a part of their curriculum.
- The detailed plan, programme schedule and budget for the programme is attached herewith.
- Permission is sought to take the students out of campus on one day as a part of the programme and to use college bus for the same. Kindly permit.

1. K. Guhan
2. D.S. Kasthurikumar

Signature of Faculty

HOD

PRINCIPAL

OFFICE USE

1) Budget allotted : Fees for Course material Exp

2) Amount committed / Spent sofar :

3) Balance available :

OM

Treasurer

Secretary

Sl. No. 388

KAMARAJ COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)

S.P.G.Chidambara Nadar - C.Nagammal Campus

S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF BIOTECHNOLOGY

Industry Certified Value Added Programme

On

MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

Objective:

- To give an insight on Entrepreneurship to the students
- To provide hands on training in Biofertilizer production and Mushroom cultivation so that students will be able to learn the basic aspects of Mushroom cultivation and vermi-composting.

Need for the Value Added Program:

- "Mushroom" is an application part of Microbiology and Industrial biotechnology course work the students have learnt. This VAP will help them to develop entrepreneurship focus on Mushroom based product development. Vermicomposting will teach them how to start a Biofertilizer unit.

Target Participants:

Class: **II B.Tech. Biotechnology**

No. of students: **48**

Duration: 5 Days

Expected Outcome:

- The students will learn the necessary skills and knowledge for the cultivation of Mushroom and mushroom based product development and production of Bioferlizer (Vermicompost).
- This workshop also aims to motivate the students to take up Entrepreneurship as career prospective in future.

PROGRAM SCHEDULE

DATE	9.00 am to 10.40 am	11.00am to 12.40pm	1.30 pm to 4.00 pm
22/02/2022	Inaugural Function	Introduction to Vermicomposting	Design, Layout and Preparation
23/02/2022	Vermicomposting Technology: Visit to Vermi Compost Farm at JP Sustainable Foundation, Kulloorsandai, Virudhunagar		
24/02/2022	Application of vermicompost and vermiwash for plant growth study	Introduction to Mushroom cultivation-design & layout	
25/02/2022	Cultivation of Mushroom: Sterilization of straw for Bed Preparation (Hands-on training by External Expert)	Spawn preparation and seeding (Hands-on training by External Expert)	
26/02/2022	Mushroom Bed preparation, Maintenance and Harvesting Techniques (Hands-on training by External Expert)		Valedictory Function

Sl. No 7

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous)
S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, **Virudhunagar.**

KAMARAJ/AO/2021-2022/ 143 16/02/2022

CIRCULAR

The Department of Biotechnology is going to organize an **Industry Certified Value Added Programme** on **"MUSHROOM CULTIVATION AND VERMICOMPOSTING"** for **II year B.Tech Biotechnology students.** The course is scheduled from **22nd to 26th February 2022.** The programme schedule for the VAP is given below:

PROGRAM SCHEDULE

DATE	9.00 am to 10.40 am	11.00am to 12.40pm	1.30 pm to 4.00 pm
22/02/2022	**Inaugural Function**	Introduction to Vermicomposting	Design, Layout and Preparation
23/02/2022	Application of vermicompost and vermiwash for plant growth study	Introduction to Mushroom cultivation-design & layout	
24/02/2022	Vermicomposting Technology: Visit to Vermi Compost Farm at JP Sustainability Foundation, Kulloorsandai, Virudhunagar		
25/02/2022	Cultivation of Mushroom: Sterilization of straw for Bed Preparation (Hands-on training by External Expert)	Spawn preparation and seeding (Hands-on training by External Expert)	
26/02/2022	Mushroom Bed preparation, Maintenance and Harvesting Techniques (Hands-on training by External Expert)		**Valedictory Function**

PRINCIPAL
Dr. S. SENTHIL, M.E.,Ph.D.,
PRINCIPAL (i/c)
KAMARAJ College of Engineering and Technology
(Autonomous)
S.P.G. Chidambara Nadar - C. Nagammal Campus,
S.P.G.C. Nagar, K. Vellakulam - 625 701.
(Near VIRUDHUNAGAR).

Copy to :

1. Circulated to all Second Year Biotech Students through their email id.
2. HOD / BT
3. Circulated to all BT Dept. Staff Members through their email id.
4. Superintendent / Administrative Office
5. IQAC
6. File

KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY (AUTONOMOUS) ★ Administrative

Copy submitted to the Secretary

Course Code	Course Name	L	T	P	C
	Mushroom Cultivation and Vermicomposting				

a. Preamble

This course enables the students to

- Understand the basic concepts, principles, potentials and limitations of mushroom cultivation and vermiculture techniques.
- Apply the active compounds of mushroom for developing a solution for health care problems.
- Develop mushroom cultivation and vermiculture skills for entrepreneurial activity.
- Appreciate the skills / devices / practices associated with the compact procedures of biodegradation of unwanted solid residues

b. Course Outcomes

After successful completion of the course,

CO.No.	Course Outcome	Knowledge Level
CO1	The students will be able to apply the active compounds of mushroom in food and pharmaceutical industry.	K3 (Apply)
CO2	The students will be able to implement the cultivation techniques for mushroom production.	K3 (Apply)
CO3	The students will be able to apply post-harvest technology to preserve the quality of the product.	K3 (Apply)
CO4	The students will be able to evaluate the significance of earthworms in increasing the soil fertility.	K4 (Analyze)
CO5	The students will be able to execute the techniques of vermicomposting for large scale production and marketing.	K3 (Apply)

c. Course Syllabus **Total: 30 Hours**

UNIT I INTRODUCTION TO MUSHROOM CULTIVATION 06

Introduction to mushroom cultivation- design and layout, spawn preparation, cultivation techniques; Present status of mushroom industry in India; Cultivable edible mushrooms; Food value of edible mushrooms.

UNIT II CULTIVATION OF MUSHROOM 12

Hands-on training – Sterilization of straw for bed preparation; Preparation of mushroom cultivation bed; Cultivation of oyster mushroom and white button mushroom; Maintenance of culture bed; Harvesting techniques.

UNIT III VERMICOMPOSTING TECHNOLOGY 04

Need for earthworm culture; Scope and importance of vermiculture; Small scale and commercial methods: process & advantages; Vermicomposting equipment - devices, design and maintenance of vermi bed.

UNIT IV PRODUCTION OF VERMICOMPOST 08

Hands-on training – Pretreatment of waste for vermicompost bed; Preparation of vermicompost setup; Different methods of Vermicompositing (Heap method, Pot method, and Tray method); Collection and preservation of vermicompost and vermiwash; Application of vermicompost and vermiwash for plant growth study.

TEXT BOOKS:

1. Robin Gogoi Yella Rathaiah T R Borah, Mushroom Cultivation Technology, Scientific Publishers, 2006.
2. S.C. Tiwari & Pankaj Kapoor, Mushroom Cultivation, 2018.
3. Clemens NPCS Board of Consultants & Engineers, The Complete Technology Book on Vermiculture and Vermicomposting, 2004
4. Keshav Singh, Textbook of Vermicompost: Vermiwash and Biopesticides, 2014

REFERENCES:

1. Sultan Ahmed Ismail, 2005. The Earthworm Book, Second Revised Edition. Other India Press, Goa, India.
2. Vermiculture Technology; Earthworms, Organic Wastes and Environmental Management, 2011, Edited by Clive A Edwards, Norman Q Arancon & Rhonda Sherman, CRC Press
3. www.organicgrowingwithworms.com.au
4. New York Times, Scientists Hope to Cultivate and Immune System for Crops

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DEPARTMENT OF BIOTECHNOLOGY

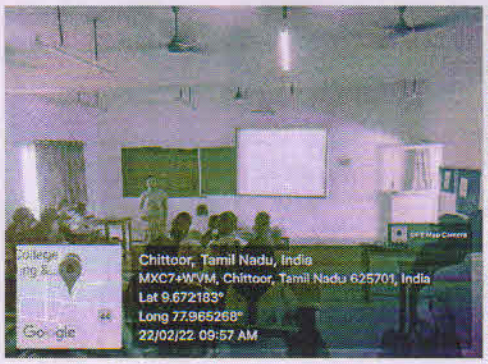
Industry Certified Value Added Programme

On

MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

DAY 1



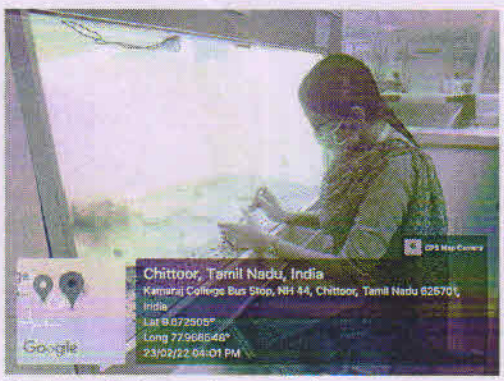
Session 1 & 2: Dr K.Geetha: Introduction to Vermicomposting

Session 3: Dr S.Karthikumar: Hands-on session on Small scale Vermicomposting bed preparation

DAY 2

Session 4: Dr R.Shyam Kumar: Applications of Vermicomposting and Vermiwash

Session 5: Dr K.Geetha: Introduction to Mushroom cultivation



Session 6: Dr S.Karthikumar: Hands-on session on Pure culture preparation for mushroom cultivation

Programme Coordinator

HOD/BT

DAY 3

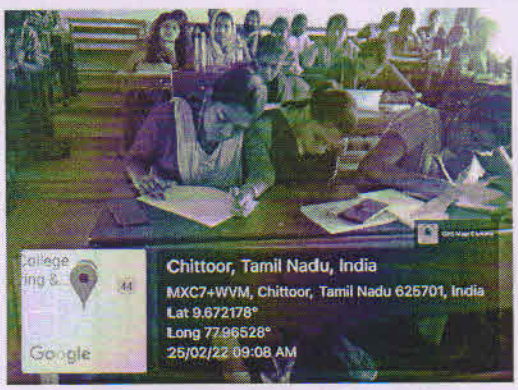
Session 7: Industrial Visit:Jeypee Biotechs, Kullursandai,VNR

Session 7: Jeypee Biotechs: Introductory session on vermicomposting

Session 8: Mr R. Palaneeswar: Large scale vermicomposting demo

Session 9: Jeypee Biotechs: Vermiwash production and application demonstration

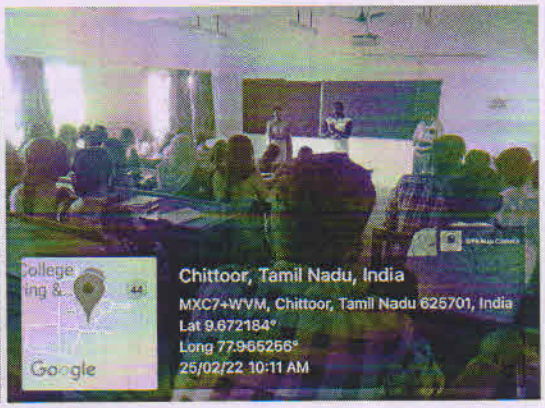
DAY 4



Session 10: Report writing on Industrial visit

Session 11: Mr R.Vijay Kumar: Hands-on session: Mushroom farming

Session 11: Mr R.Vijay Kumar: Hands-on session: Mushroom farming



Session12: Mr R.Vijay Kumar: Theory session on Mushroom cultivation

Programme Co-ordinators

HoD/BT

DAY 5

Session 13: Hands-on session on Spawn preparation

Session 13: Hands-on session on Paddy Straw pretreatment

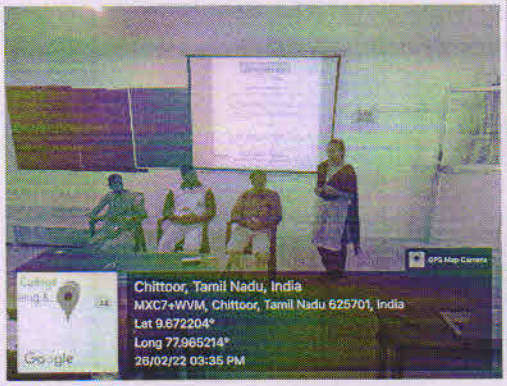
Session 14: Mr R.Vijay Kumar: Hands-on session on Mushroom cultivation

Session 15: Thiru.T.J.Jeyakumar, M.B.A.: Inspection of Mushroom beds prepared by students for Oyster Mushroom cultivation

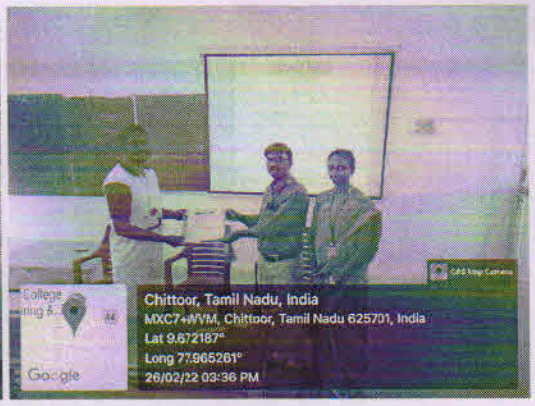
Programme Coordinators

HOD/BT

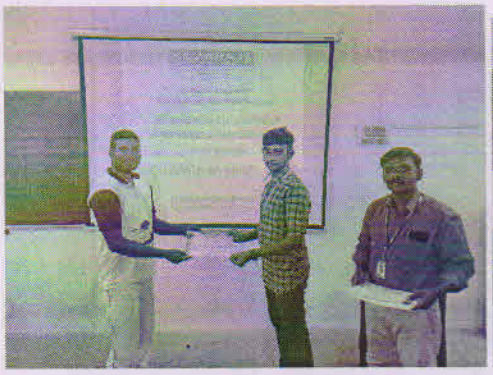
VALEDICTORY FUNCTION



Student's oral feedback during Valedictory function



Appreciation certificate to Mr R.Vijay Kumar, Vcare Agro Tech Mushroom Farm, Resource person & Industry expert



Certificate distribution to students

28/2/2022

Programme Coordinators

HoD/BT

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DEPARTMENT OF BIOTECHNOLOGY

Industry Certified Value Added Programme

On

MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

ONLINE PROCTORED EXTERNAL EXAMINATION – 28/05/2022

PHOTOS

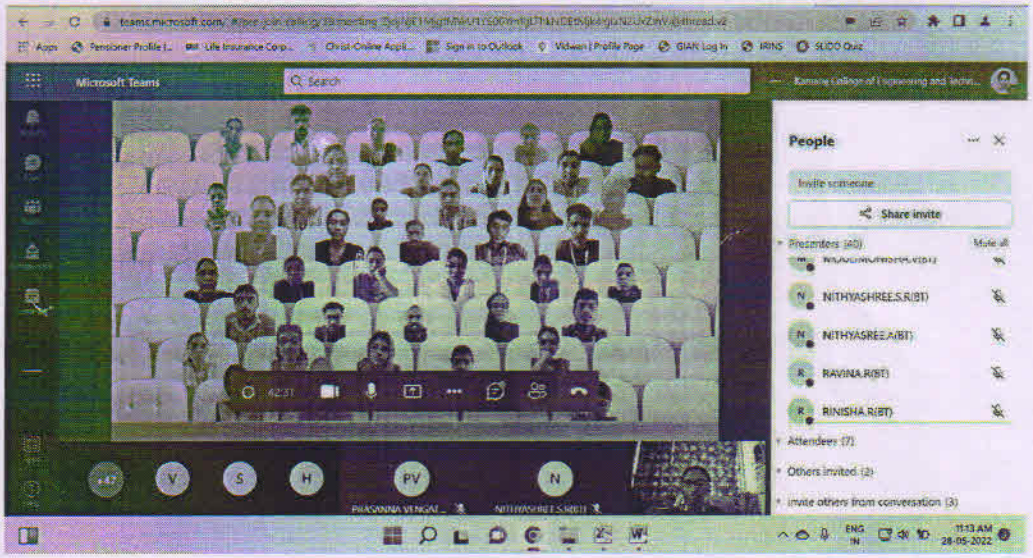

Photo 1: Online Meeting for proctored External exam – Online mode

Photo 2 & 3: Students attending Online proctored mode external exam for Value Added Course

Programme Coordinators **HoD/BT**

VAP- MUSHROOM CULTIVATION AND VERMICOMPOSTING: EXTERNAL ASSESSMENT TEST 2021-22

Geetha.K <geethabt@kamarajengg.edu.in>
Wed 5/25/2022 4:49 PM

To: **20UBT <20ubt@kamarajengg.edu.in>**

Cc: PRADIBA.D <pradibabt@kamarajengg.edu.in>;Shyam Kumar Rajaram <shyamkumarbt@kamarajengg.edu.in>;Karthikumar.S <karthikumarbt@kamarajengg.edu.in>;HODBT <hodbt@kamarajengg.edu.in>

Dear Students,

Greetings!

You are requested to join the meeting to attend **VAP- MUSHROOM CULTIVATION AND VERMICOMPOSTING: EXTERNAL ASSESSMENT TEST 2021-22** on **28/05/2022 at 11.00 am.** All students are instructed to bring Laptop to take the exam. Join the link 10 min before the exam timing. Only those who attended the VAP completely are eligible to take the test. Hence only those students may join the link and attend the test. The test will be conducted in proctored mode in the department.

Link:
https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZjdjNjE1MjgtMWU1YS00YmRjLThkNDEtMjk4YjIxN2UxZmVi%40thread.v2/0?context=%7b%22Tid%22%3a%222666d919-f1fc-4027-b9c5-212d4e95e68a%22%2c%22Oid%22%3a%224948241d-c837-4241-ab0b-de08e44460f9%22%7d

BEST OF LUCK!

Regards,

Dr K.Geetha
Dr S.Karthikumar
Dr R.Shyam Kumar
Programme Coordinator

Dr K.Geetha
Associate Professor
Department of Biotechnology

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MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

FINAL EXTERNAL ASSESSMENT TEST

Part A – 30 x 1 = 30 Marks

1. Which of the following is a commonly used earthworm species for the vermicomposting process?

a) *Eisenia fetida*

b) *Perionix excavatus*

c) Both (a) and (b)

d) None of the above

2. The highly decomposed organic matter rich in minerals like nitrogen, phosphorus, and potassium, in particular, produced from the activity of earthworms is called _____.

a) Humus

b) Vermicompost

c) Worm casting

d) Compost bedding

3. Vermicompost is used as a biofertilizer because it is rich in_____.

a) Calcium

b) Nitrogen

c) Phosphorus

d) All of the above

4. The moisture level required for vermicomposting should be between _____.

a) Below 30 per cent

b) 40 and 50 per cent

c) 70 and 80 per cent

d) Above 90 per cent

5. Why do you need to weigh your worms before putting them in your compost bin?

a) to know how much to feed them

b) to know how many there are

c) to see how much weight they are putting on

d) to know what will be the end product

6. What type of bin is best for vermicomposting?

a) metal

b) plastic

c) wood

d) all the above

7. What among the following will be best suited for the bedding of a vermicomposting bin?

a) shredded paper

b) food

c) eggshells

d) all the above

8. What does it mean if your compost bin begins to smell?

a) You have too much bedding and not enough soil.

b) You are feeding the worms too much.

c) You have too many worms in the bin.

d) You do not have enough feed in the bedding.

9. Which of the following is not a major objective of Vermicomposting?

a) To elevate the value of original material

b) To accelerate the rate of degradation

c) To obtain toxic products

d) To obtain products free of any pollutants

10. The process of covering spawned compost with a suitable material is known as

a) cropping

b) casing

c) spawning

d) composting

11. There are three main methods of Large scale vermicomposting. Among three which method eliminates the need to separate worms from the casting before packaging?

a) Windrow system

b) Raised bed system

c) Flow-through system

d) None of the above

12. What is the optimum C/N ratio of vermicompost?

a) 11.64

b) 16.83

c) 21.64

d) 10.98

13. All are true with respect to vermicomposting except

a) improving soil aggregation,

b) structure, and soil fertility,

c) decreasing soil microbial population and enzymes,

d) improving moisture-holding capacity of soil

14. The vermitechnology provides vermicompost which is organic fertilizer and as natural manure for crops and gardens.

a) True

b) False

15. If oxygen levels are high, anaerobic processes will take over and cause chemical reactions and strong odors that will stress or kill the worms.

a) True

b) False

16. What is the botanical name of oyster mushroom?

a) *Pleurotus ostreatus*

b) *Agaricus bisporus*

c) *Lentinus edodes*

d) *Pleurotus eryngii*

17. What is the ambient temperature to cultivate button mushroom?

a) 40- 45°C

b) 35 - 40°C

c) 5 - 15°C

d) 20- 35°C

18. What is the average weight of a mushroom bed with four layer of spawn?

a) 1-2 Kg

b) 3-5 Kg

c) 5-10 Kg

d) 10-15 Kg

19. What is the carrier material widely used for spawn production?

a) White sorghum

b) Wheat

c) Rice

d) Beans

20. How many days an oyster mushroom will take to produce first yield during winter session?

a) 5 Days

b) 10 Days

c) 15 Days

d) 30 Days

21. Which of the following is required to sterilize rice straw?

a) Ethanol

b) Formaldehyde

c) Phenol

Dettol

22. What is the purpose of making holes in mushroom bed?

a) to release heat

b) to provide air circulation

c) to make buds to come out

d) all of the above

23. Mushroom is rich in protein

a) True

b) False

24. Which of the following is not a part of mushroom?

a) Pilus

b) Stipe

c) Annulus

d) Stigma

25. Whish of the following type of mushroom is widely cultivated?

a) White button mushroom

b) Oyster mushroom

c) Paddy straw mushroom

d) Milky mushroom

26. Mycelium embedded in gills are called as

a) Stromma

b) Pilus

c) Stipe

d) Annulus

27. What is the common size of plastic bag used to make mushroom bed?

a) 6 x 12 inches

b) 12 x 24 inches

c) 3 x 6 inches

d) 3 x 24 inches

28. Where is National Research Centre for Mushroom located?

a) Tamilnadu

b) Kerala

c) Delhi

d) Himachal Pradesh

29. What will be the ratio of mushroom weight before and after drying process?

a) 1: 5

b) 1: 10

c) 1 : 20

d) 1: 50

30. How to seed mushroom spawn in a bed?

a) Middle of the bed as single layer

b) Bottom of the bed as single layer

c) Top of the bed as single layer

d) Multiple layers from bottom to top

Part B – 15 x 2 = 30 Marks

1.Earthworms are considered friends of the farmers. Select from the following the correct reasons for the same:

A. Earthworms eat the dead leaves and plants and their droppings fertilise the soil.

B. Earthworms eat the weeds and save the main crop.

C. Earthworms soften the soil by digging underearth.

D. The tunnels made by the earthworms provide easy passage to air and water into the soil.

a) B, C and D

b) C, D and A

c) A and C only

d) A, B and C

2. Vermicompost is a manure prepared….?

a) in factories

b) from plants

c) from dead animals

d) by earthworms

3. Match the following:

(a) Mixed fertilizer	1. DAP
(b) Complex fertilizer	2. NPK
(c) Biofertilizer	3. Oil Cake
(d) Organic fertilizer	4. Algae

a) (a) – 1; (b) – 2; (c) – 3; (d) - 4

b) (a) – 2; (b) – 1; (c) – 4; (d) - 3

c) (a) – 3; (b) – 2; (c) – 1; (d) - 4

d) (a) – 4; (b) – 3; (c) – 2; (d) - 1

4.In order to get more yield from his fields, a farmer is growing paddy crops over and over again using excess of fertilizer and pesticides. This practice will make the soil of his fields ….

a) more useful for paddy crops only

b) fertile for other crops also

c) fit for ploughing and sowing seeds

d) ultimately unfit for growing any crop

5. Is there any biological biocomposting method for waste degradation other than vermicomposting?

a) Yes

b) No

6. Which epigenic earthworm species has high ability to tolerate environmental conditions like temperature, pH and moisture contents?

a) *Eisenia fetida*

b) *Perionix excavatus*

c) *Lumbricus terrestris*

d) *Amynthas mekongianus*

7. During vermicomposting why is the pH of the substrate decreasing towards neutral pH?

a) Due to addition of water

b) Due to addition of earthworms

c) Production of carbon dioxide and organic acids by microbial metabolism during decomposition

d) Because of decrease in organic matter

8. Why vermicompost contains more NPK than Farm yard manure?

a) N in FYM is lost during preparation and storage mainly as NH_3 volatilisation and or NO3 leaching.

b) Vermicompost is made from organic waste alone

c) Farm yard manure is directly used on plants

d) Vermicompost contains earthworms also.

9. To which division does Mushroom belong?

a) Basidiomycetes

b) Pteridophyta

c) Thallophyta

d) Mollusca

10. Mycellium produces white or colored umbrella shaped fruiting bodies called____

a) Haphae

b) Basidiocarp

c) Annalus

d) Seta

11. What is a symptom of mushroom poisoning?

a) Mild nausea

b) Vomiting

c) Diarrhea

d) All of the Above

12. Mushroom Farm Layout requires

a) Composting unit

b) Prewetting area

c) Both

d) None of these

13. Spawn is the _____ of Mushroom

a) Spores

b) Mycellium

c) Fruit

d) Both a and b

14. Alternative name of Agaricus is

a) Button mushroom

b) Paddy straw mushroom

c) Oyster mushroom

d) Dhingri mushroom

15. Mushrooms are good source of

a) Carbohydrates

b) Protein

b) fertile for other crops also

c) fit for ploughing and sowing seeds

d) ultimately unfit for growing any crop

5. Is there any biological biocomposting method for waste degradation other than vermicomposting?

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c) Thallophyta

d) Mollusca

c) Fats

d) Vitamins

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Industry Certified Value Added Programme

On

MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

Attendance

S.No.	Roll Number	Student Name	22.02.2022		23.02.2022		24.02.2022		25.02.2022		26.02.2022	
		Session	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1	20UBT001	SRIDIVYA.R										
2	20UBT002	SUDHARSAN.M										
3	20UBT003	JEFFRY DANIEL.D										
4	20UBT004	GIRITHARAN.S										
5	20UBT005	SIVA SANKARI.K										
6	20UBT006	THILSATH MEERAL.S										
7	20UBT007	GOBIKA.G										
8	20UBT008	FAHEEMA THAHASEEN.A										
9	20UBT009	SANDOSHMANI.R										
10	20UBT010	RAVINA.R										
11	20UBT011	MOULI MONISHA.V										
12	20UBT012	ARAVIND.R										
13	20UBT013	AKASH DEV.M.S										
14	20UBT014	KEERTHI VASAN.V										
15	20UBT015	DINESH.R										
16	20UBT016	BENITA MARGARET.L										
17	20UBT017	JASMINE KILDA.L										
18	20UBT018	MADHUMITHA.K										
19	20UBT019	DEEJITH NAATIYAAL.M.S										
20	20UBT020	KAMALI.S										
21	20UBT021	SINDHUJA.S										

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF BIOTECHNOLOGY

Industry Certified Value Added Programme

On

MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

Attendance

S.No.	Roll Number	Student Name	22.02.2022		23.02.2022		24.02.2022		25.02.2022		26.02.2022	
22	20UBT022	NITHYASREE.A										
23	20UBT023	VARSHINIRAJI.P										
24	20UBT024	ABINAYA.J										
25	20UBT025	SAIBHAVADHARANI.B										
26	20UBT026	GOKULNATH.S										
27	20UBT027	SUBHIKSHA.S										
28	20UBT028	VARSHA.G.V										
29	20UBT029	RINISHA.R										
30	20UBT030	NARASINGAM.R										
31	20UBT031	JOHN PAUL HUDSON.S										
32	20UBT032	JEGADEESH.M										
33	20UBT033	VAIRAMUTHU.P										
34	20UBT034	VAISHAALI.A.M										
35	20UBT035	YOGASRI.M										
36	20UBT036	BOOJITHA.E										
37	20UBT037	LAMIYA BANU.M										
38	20UBT038	VARSHA.E										
39	20UBT039	SAKTHI SUREGA.P										
40	20UBT040	GOWSALYA.K	Ab									
41	20UBT041	MINUSHA.S										
42	20UBT042	VINODHINI.R										
43	20UBT043	CERLICLADIYA.P										
44	20UBT044	SHANKAR GANESH.M.V										

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22/02/2022 to 26/02/2022

Attendance

S.No.	Roll Number	Student Name	22.02.2022		23.02.2022		24.02.2022		25.02.2022		26.02.2022	
45	20UBT045	HARSINI.S										
46	20UBT046	PRASANNA VENGATESH.V										
47	20UBT047	AASIF HUSSAIN	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB
48	20UBT049	NITHYASHREE.S.R										

Programme Coordinators

HoD/BT

Review: VAP- MUSHROOM CULTIVATION AND VERMICOMPOSTING: EXTERNAL ASSESSMENT TEST 2021-22

Respondent
20 Anonymous

46:25
Time to complete

38/60
Points

1. Name * Score / 0 pts

Sakthi Surega. P

2. Roll No * Score / 0 pts

20ubt039

3. Register No * Score / 0 pts

920420ubt039

4. Class * Score / 0 pts

II year

5. Date * Score / 0 pts

5/28/2022

PART A : **30 x 1 = 30 Marks**

Answer all questions

More options for Responses
Auto-graded

6. 1. Which of the following is a commonly used earthworm species for the vermicomposting process?

- a) Eisenia fetida ✗
- b) Perionix excavatus
- c) Both (a) and (b) ✓
- d) None of the above

7. 2. The highly decomposed organic matter rich in minerals like nitrogen, phosphorus, and potassium, in particular, produced from the activity of earthworms is called _____. 1 / 1 pt
Auto-graded

- a) Humus
- b) Vermicompost ✓
- c) Worm casting
- d) Compost bedding

8. 3. Vermicompost is used as a biofertilizer because it is rich in_____. 1 / 1 pt
Auto-graded

- a) Calcium
- b) Nitrogen
- c) Phosphorus
- d) All of the above ✓

9. 4. The moisture level required for vermicomposting should be between _____. 1 / 1 pt
Auto-graded

- a) Below 30 per cent
- b) 40 and 50 per cent
- c) 70 and 80 per cent ✓
- d) Above 90 per cent

10. 5. Why do you need to weigh your worms before putting them in your compost bin? 0 / 1 pt
Auto-graded

- a) to know how much to feed them ✓
- b) to know how many there are ✗
- c) to see how much weight they are putting on
- d) to know what will be the end product

11. 6. What type of bin is best for vermicomposting? 0 / 1 pt
Auto-graded

- a) metal
- b) plastic
- c) wood ✓
- d) all the above ✗

12. 7. What among the following will be best suited for the bedding of a vermicomposting bin? 0 / 1 pt
Auto-graded

- a) shredded paper ✓
- b) food
- c) eggshells
- d) all the above ✗

0 / 1 pt
Auto-graded

13. 8. What does it mean if your compost bin begins to smell?

- a) You have too much bedding and not enough soil. ✗
- b) You are feeding the worms too much. ✓
- c) You have too many worms in the bin.
- d) You do not have enough feed in the bedding.

14. 9. Which of the following is not a major objective of Vermicomposting? 0 / 1 pt
Auto-graded

- a) To elevate the value of original material
- b) To accelerate the rate of degradation ✗
- c) To obtain toxic products ✓
- d) To obtain products free of any pollutants

15. 10. The process of covering spawned compost with a suitable material is known as 1 / 1 pt
Auto-graded

- a) cropping
- b) casing ✓
- c) spawning
- d) composting

16. 11. There are three main methods of Large scale vermicomposting. Among three which method eliminates the need to separate worms from the casting before packaging? 1 / 1 pt
Auto-graded

- a) Windrow system
- b) Raised bed system
- c) Flow-through system ✓
- d) None of the above

17. 12. What is the optimum C/N ratio of vermicompost? 0 / 1 pt
Auto-graded

- a) 11.64 ✓
- b) 16.83
- c) 21.64 ✗
- d) 10.98

18. 13. All are true with respect to vermicomposting except 1 / 1 pt
Auto-graded

- a) improving soil aggregation,
- b) structure, and soil fertility,
- c) decreasing soil microbial population and enzymes, ✓
- d) improving moisture-holding capacity of soil

1 / 1 pt
Auto-graded

19. 14. The vermitechnology provides vermicompost which is organic fertilizer and as natural manure for crops and gardens.

- (●) True ✓
- ( ) False

20. 15. If oxygen levels are high, anaerobic processes will take over and cause chemical reactions and strong odors that will stress or kill the worms. 1 / 1 pt *Auto-graded*

- ( ) True
- (●) False ✓

21. 16. What is the botanical name of oyster mushroom? 1 / 1 pt *Auto-graded*

- (●) a) Pleurotus ostreatus ✓
- ( ) b) Agaricus bisporus
- ( ) c) Lentinus edodes
- ( ) d) Pleurotus eryngii

22. 17. What is the ambient temperature to cultivate button mushroom? 0 / 1 pt *Auto-graded*

- ( ) a) 40- 45°C
- ( ) b) 35 - 40°C
- ( ) c) 5 - 15°C ✓
- (●) d) 20- 35°C ✗

23. 18. What is the average weight of a mushroom bed with four layer of spawn? 0 / 1 pt *Auto-graded*

- (●) a) 1-2 Kg ✗
- ( ) b) 3-5 Kg ✓
- ( ) c) 5-10 Kg
- ( ) d) 10-15 Kg

24. 19. What is the carrier material widely used for spawn production? 0 / 1 pt *Auto-graded*

- ( ) a) White sorghum ✓
- (●) b) Wheat ✗
- ( ) c) Rice
- ( ) d) Beans

25. 20. How many days an oyster mushroom will take to produce first yield during winter session? 0 / 1 pt *Auto-graded*

- ( ) a) 5 Days
- ( ) b) 10 Days
- ( ) c) 15 Days ✓
- (●) d) 30 Days ✗

26. 21. Which of the following is required to sterilize rice straw? 1 / 1 pt
Auto-graded

- ○ a) Ethanol
- ◉ b) Formaldehyde ✓
- ○ c) Phenol
- ○ d) Dettol

27. 22. What is the purpose of making holes in mushroom bed? 1 / 1 pt
Auto-graded

- ○ a) to release heat
- ○ b) to provide air circulation
- ○ c) to make buds to come out
- ◉ d) all of the above ✓

28. 23. Mushroom is rich in protein 1 / 1 pt
Auto-graded

- ◉ a) True ✓
- ○ b) False

29. 24. Which of the following is not a part of mushroom? 1 / 1 pt
Auto-graded

- ○ a) Pilus
- ○ b) Stipe
- ○ c) Annulus
- ◉ d) Stigma ✓

30. 25. Whish of the following type of mushroom is widely cultivated? 0 / 1 pt
Auto-graded

- ◉ a) White button mushroom ✗
- ○ b) Oyster mushroom
- ○ c) Paddy straw mushroom
- ○ d) Milky mushroom ✓

31. 26. Mycelium embedded in gills are called as 0 / 1 pt
Auto-graded

- ○ a) Stromma ✓
- ○ b) Pilus
- ○ c) Stipe
- ◉ d) Annulus ✗

1 / 1 pt
Auto-graded

32. 27. What is the common size of plastic bag used to make mushroom bed?

- a) 6 x 12 inches
- b) 12 x 24 inches ✓
- c) 3 x 6 inches
- d) 3 x 24 inches

33. 28. Where is National Research Centre for Mushroom located? 1 / 1 pt

Auto-graded

- a) Tamilnadu
- b) Kerala
- c) Delhi
- d) Himachal Pradesh ✓

34. 29. What will be the ratio of mushroom weight before and after drying process? 0 / 1 pt

Auto-graded

- a) 1: 5
- b) 1: 10 ✓
- c) 1 : 20 ✗
- d) 1: 50

35. 30. How to seed mushroom spawn in a bed? 1 / 1 pt

Auto-graded

- a) Middle of the bed as single layer
- b) Bottom of the bed as single layer
- c) Top of the bed as single layer
- d) Multiple layers from bottom to top ✓

PART B: **15 x 2 = 30 Marks**

Answer all questions

0 / 2 pts

Auto-graded

36. 1.Earthworms are considered friends of the farmers. Select from the following the correct reasons for the same:

A. Earthworms eat the dead leaves and plants and their droppings fertilise the soil.

B. Earthworms eat the weeds and save the main crop.

C. Earthworms soften the soil by digging underearth.

D. The tunnels made by the earthworms provide easy passage to air and water into the soil.

- ○ a) B, C and D
- ○ b) C, D and A ✓
- ○ c) A and C only
- ◉ d) A, B and C ✗

37. 2. Vermicompost is a manure prepared....? 2 / 2 pts
Auto-graded

- ○ a) in factories
- ○ b) from plants
- ○ c) from dead animals
- ◉ d) by earthworms ✓

38. 3. Match the following: 2 / 2 pts
Auto-graded

(a) Mixed fertilizer	1. DAP
(b) Complex fertilizer	2. NPK
(c) Biofertilizer	3. Oil Cake
(d) Organic fertilizer	4. Algae

- ○ a) (a) – 1; (b) – 2; (c) – 3; (d) - 4
- ◉ b) (a) – 2; (b) – 1; (c) – 4; (d) - 3 ✓
- ○ c) (a) – 3; (b) – 2; (c) – 1; (d) - 4
- ○ d) (a) – 4; (b) – 3; (c) – 2; (d) - 1

39. 4.In order to get more yield from his fields, a farmer is growing paddy crops over and over again using excess of fertilizer and pesticides. This practice will make the soil of his fields .... 2 / 2 pts
Auto-graded

- ○ a) more useful for paddy crops only
- ○ b) fertile for other crops also
- ○ c) fit for ploughing and sowing seeds
- ◉ d) ultimately unfit for growing any crop ✓

40. 5. Is there any biological biocomposting method for waste degradation other than vermicomposting? 0 / 2 pts
Auto-graded

- ○ Yes ✓
- ◉ No ✗

2 / 2 pts

41. 6. Which epigenic earthworm species has high ability to tolerate environmental conditions like temperature, pH and moisture contents? *Auto-graded*

- [x] a) Eisenia fetida ✓
- [ ] b) Perionix excavatus
- [ ] c) Lumbricus terrestris
- [ ] d) Amynthas mekongianus

42. 7. During vermicomposting why is the pH of the substrate decreasing towards neutral pH? 2 / 2 pts *Auto-graded*

- [ ] a) Due to addition of water
- [ ] b) Due to addition of earthworms
- [x] c) Production of carbon dioxide and organic acids by microbial metabolism during decomposition ✓
- [ ] d) Because of decrease in organic matter

43. 8. Why vermicompost contains more NPK than Farm yard manure? 2 / 2 pts *Auto-graded*

- [x] a) N in FYM is lost during preparation and storage mainly as NH_3 volatilisation and or NO_3 leaching. ✓
- [ ] b) Vermicompost is made from organic waste alone
- [ ] c) Farm yard manure is directly used on plants
- [ ] d) Vermicompost contains earthworms also.

44. 9. To which division does Mushroom belong? 2 / 2 pts *Auto-graded*

- [x] a) Basidiomycetes ✓
- [ ] b) Pteridophyta
- [ ] c) Thallophyta
- [ ] d) Mollusca

45. 10. Mycellium produces white or colored umbrella shaped fruiting bodies called___ 2 / 2 pts *Auto-graded*

- [ ] a) Haphae
- [x] b) Basidiocarp ✓
- [ ] c) Annalus
- [ ] d) Seta

46. 11. What is a symptom of mushroom poisoning? 2 / 2 pts *Auto-graded*

- [ ] a) Mild nausea
- [ ] b) Vomiting
- [ ] c) Diarrhea
- [x] d) All of the Above ✓

2 / 2 pts *Auto-graded*

47. 12. Mushroom Farm Layout requires

- a) Composting unit
- b) Prewetting area
- c) Both ✓
- d) None of these

48. 13. Spawn is the _____ of Mushroom 0 / 2 pts
Auto-graded

- a) Spores
- b) Mycellium ✗
- c) Fruit
- d) Both a and b ✓

49. 14. Alternative name of Agaricus is 0 / 2 pts
Auto-graded

- a) Button mushroom ✓
- b) Paddy straw mushroom
- c) Oyster mushroom ✗
- d) Dhingri mushroom

50. 15. Mushrooms are good source of 2 / 2 pts
Auto-graded

- a) Carbohydrates
- b) Protein ✓
- c) Fats
- d) Vitamins

INTERNAL ASSESSMENT TEST

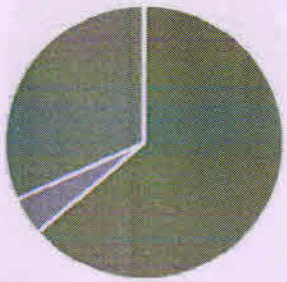
Value Added Course Assessment Test

45	19	Active
Responses	Average Score	Status

1. Which of the following is a commonly used earthworm species for the vermicomposting process? (1 point)

32% of respondents (14 of 44) answered this question correctly.

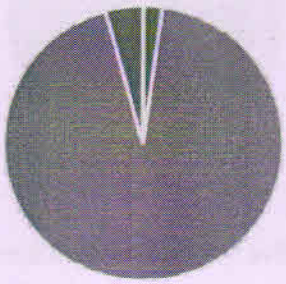
Eisenia fetida	28	
Perionix excavatus	2	
Both (a) and (b)	14	✓
None of the above	0	



2. The highly decomposed organic matter rich in minerals like nitrogen, phosphorus, and potassium, in particular, produced from the activity of earthworms is called _____ (1 point)

93% of respondents (42 of 45) answered this question correctly.

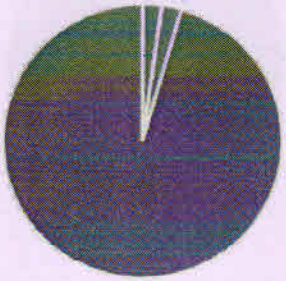
Humus	1	
Vermicompost	42	✓
Worm casting	2	
Compost bedding	0	



3. Vermicompost is used as a biofertilizer because it is rich in_____ (1 point)

95% of respondents (42 of 44) answered this question correctly.

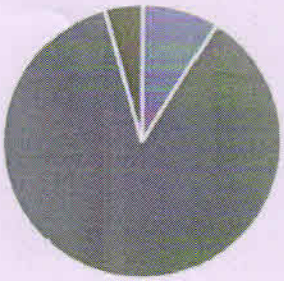
Calcium	1	
Nitrogen	0	
Phosphorus	1	
All of the above	42	✓



4. The moisture level required for vermicomposting should be between _____. (1 point)

87% of respondents (39 of 45) answered this question correctly.

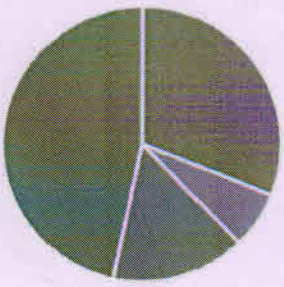
Below 30 per cent	0	
40 and 50 per cent	4	
70 and 80 per cent	39	✓
Above 90 per cent	2	



5. Why do you need to weigh your worms before putting them in your compost bin? (1 point)

31% of respondents (14 of 45) answered this question correctly.

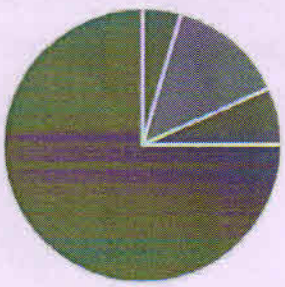
to know how much to feed th...	14	✓
to know how many there are	3	
to see how much weight they ...	7	
to know what will be the end ...	21	



6. What type of bin is best for vermicomposting? (1 point)

7% of respondents (3 of 44) answered this question correctly.

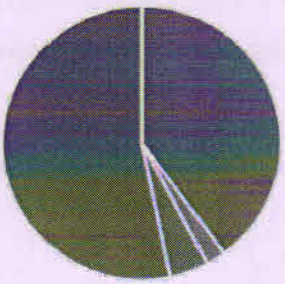
metal	2	
plastic	6	
wood	3	✓
all the above	33	



7. What among the following will be best suited for the bedding of a vermicomposting bin? (1 point)

40% of respondents (18 of 45) answered this question correctly.

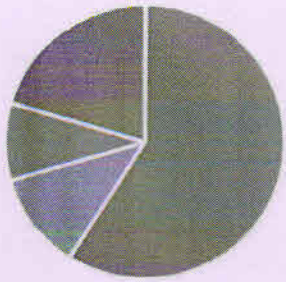
shredded paper	18	✓
food	1	
eggshells	2	
all the above	24	



8. What does it mean if your compost bin begins to smell? (1 point)

11% of respondents (5 of 44) answered this question correctly.

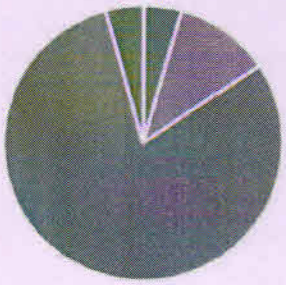
You have too much bedding a...	26	
You are feeding the worms to...	5	✓
You have too many worms in t...	4	
You do not have enough feed ...	9	



9. Which of the following is not a major objective of Vermicomposting? (1 point)

80% of respondents (36 of 45) answered this question correctly.

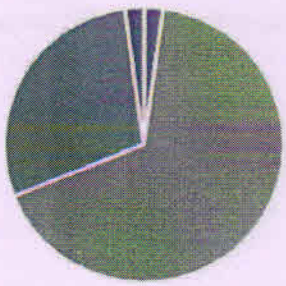
To elevate the value of origina...	2	
To accelerate the rate of degra...	5	
To obtain toxic products	36	✓
To obtain products free of any...	2	



10. The process of covering spawned compost with a suitable material is known as (1 point)

67% of respondents (30 of 45) answered this question correctly.

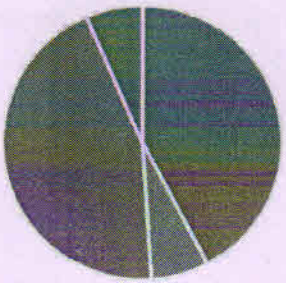
cropping	1	
casing	30	✓
spawning	13	
composting	1	



11. There are three main methods of Large scale vermicomposting. Among three which method eliminates the need to separate worms from the casting before packaging? (1 point)

44% of respondents (20 of 45) answered this question correctly.

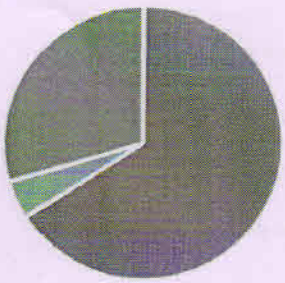
Windrow system	19	
Raised bed system	3	
Flow-through system	20	✓
None of the above	3	



12. What is the optimum C/N ratio of vermicompost? (1 point)

66% of respondents (29 of 44) answered this question correctly.

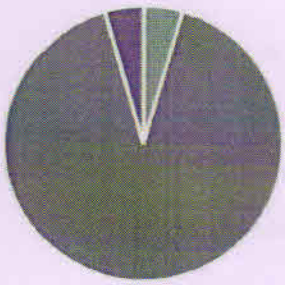
11.64	29	✓
16.83	2	
21.64	13	
10.98	0	



13. All are true with respect to vermicomposting except (1 point)

91% of respondents (40 of 44) answered this question correctly.

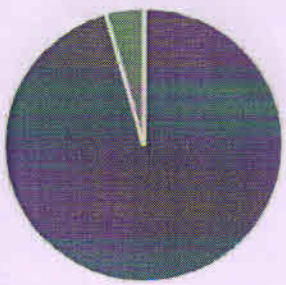
improving soil aggregation,	0	
structure, and soil fertility	2	
decreasing soil microbial pop...	40	✓
improving moisture-holding c...	2	



14. The vermitechnology provides vermicompost which is organic fertilizer and as natural manure for crops and gardens (1 point)

96% of respondents (43 of 45) answered this question correctly.

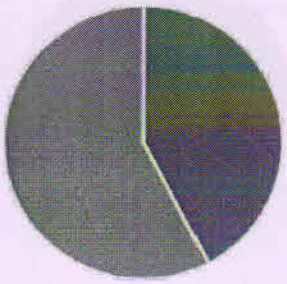
True	43	✓
False	2	



15. If oxygen levels are high, anaerobic processes will take over and cause chemical reactions and strong odors that will stress or kill the worms (1 point)

58% of respondents (26 of 45) answered this question correctly.

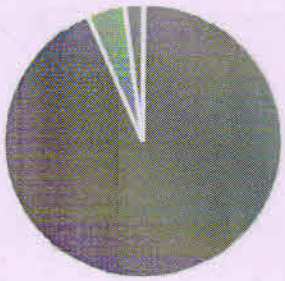
True	19	
False	26	✓



16. What is the botanical name of oyster mushroom? (1 point)

93% of respondents (42 of 45) answered this question correctly.

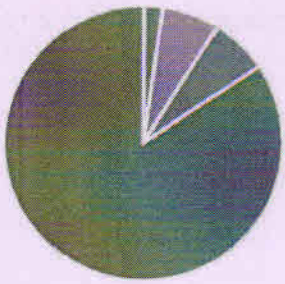
Pleurotus ostreatus	42	✓
Agaricus bisporus	2	
Lentinus edodes	1	
Pleurotus eryngii	0	



17. What is the ambient temperature to cultivate button mushroom? (1 point)

7% of respondents (3 of 45) answered this question correctly.

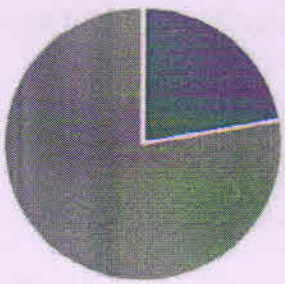
40- 45oC	1	
35 - 40oC	3	
5 - 15oC	3	✓
20- 35oC	38	



18. What is the average weight of a mushroom bed with four layer of spawn? (1 point)

78% of respondents (35 of 45) answered this question correctly.

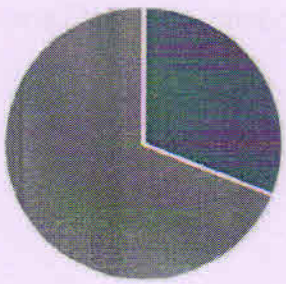
1-2 Kg	10	
3-5 Kg	35	✓
5-10 Kg	0	
10-15 Kg	0	



19. What is the carrier material widely used for spawn production? (1 point)

31% of respondents (14 of 45) answered this question correctly.

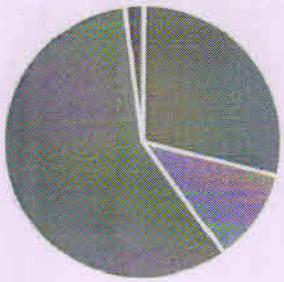
White sorghum	14	✓
Wheat	31	
Rice	0	
Beans	0	



20. How many days an oyster mushroom will take to produce first yield during winter session? (1 point)

58% of respondents (26 of 45) answered this question correctly.

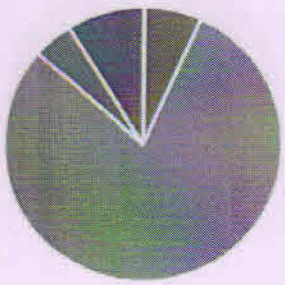
5 Days	13	
10 Days	5	
15 Days	26	✓
30 Days	1	



21. Which of the following is required to sterilize rice straw? (1 point)

80% of respondents (35 of 44) answered this question correctly.

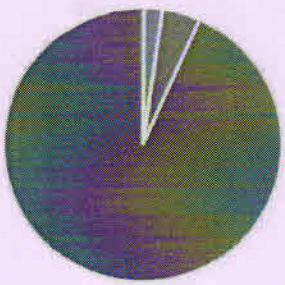
Ethanol	3	
Formaldehyde	35	✓
Phenol	2	
Dettol	4	



22. What is the purpose of making holes in mushroom bed? (1 point)

93% of respondents (42 of 45) answered this question correctly.

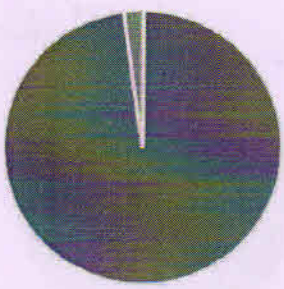
to release heat	0	
to provide air circulation	1	
to make buds to come out	2	
all of the above	42	✓



23. Mushroom is rich in protein (1 point)

98% of respondents (43 of 44) answered this question correctly.

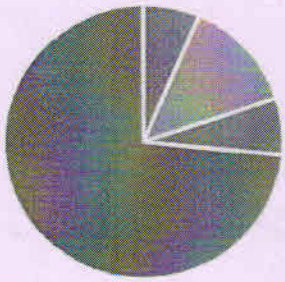
True	43	✓
False	1	



24. Which of the following is not a part of mushroom? (1 point)

73% of respondents (33 of 45) answered this question correctly.

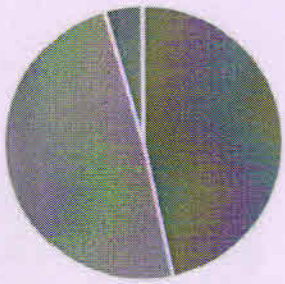
Pilus	3	
Stipe	6	
Annulus	3	
Stigma	33	✓



25. Whish of the following type of mushroom is widely cultivated? (1 point)

47% of respondents (21 of 45) answered this question correctly.

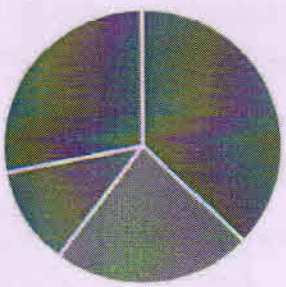
White button mushroom	21	✓
Oyster mushroom	22	
Paddy straw mushroom	2	
Milky mushroom	0	



26. Mycelium embedded in gills are called as (1 point)

37% of respondents (16 of 43) answered this question correctly.

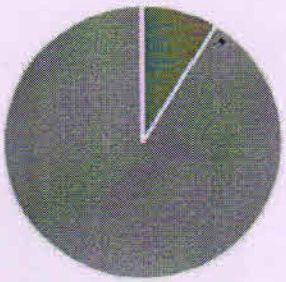
Stromma	16	✓
Pilus	10	
Stipe	5	
Annulus	12	



27. What is the common size of plastic bag used to make mushroom bed? (1 point)

91% of respondents (41 of 45) answered this question correctly.

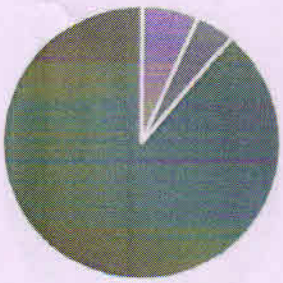
6 x 12 inches	4	
12 x 24 inches	41	✓
3 x 6 inches	0	
3 x 24 inches	0	



28. Where is National Research Centre for Mushroom located? (1 point)

89% of respondents (40 of 45) answered this question correctly.

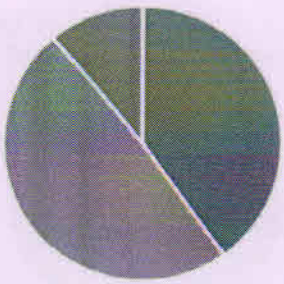
Tamilnadu	0	
Kerala	3	
Delhi	2	
Himachal Pradesh	40	✓



29. What will be the ratio of mushroom weight before and after drying process? (1 point)

49% of respondents (22 of 45) answered this question correctly.

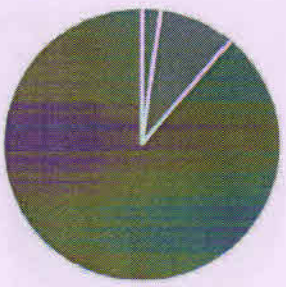
1: 5	18	
1: 10	22	✓
1 : 20	5	
1: 50	0	



30. How to seed mushroom spawn in a bed? (1 point)

89% of respondents (40 of 45) answered this question correctly.

Middle of the bed as single la...	1	
Bottom of the bed as single la...	0	
Top of the bed as single layer	4	
Multiple layers from bottom t...	40	✓



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Industry Certified Value Added Programme

on

MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

Department: Biotechnology
Year: 2021-22
Regulation: R2020
Semester: Even

MARK STATEMENT

S.No.	Roll Number	Reg Number	Student Name	Internal Marks	External Marks	Final Marks
			Marks	40	60	100
1	20UBT001	920420UBT001	SRIDIVYA.R	36	51	87
2	20UBT002	920420UBT002	SUDHARSAN.M	25	39	64
3	20UBT003	920420UBT003	JEFFRY DANIEL.D	28	44	72
4	20UBT004	920420UBT004	GIRITHARAN.S	31	48	79
5	20UBT005	920420UBT005	SIVA SANKARI.K	31	49	80
6	20UBT006	920420UBT006	THILSATH MEERAL.S	33	44	77
7	20UBT007	920420UBT007	GOBIKA.G	29	42	71
8	20UBT008	920420UBT008	FAHEEMA THAHASEEN.A	34	38	72
9	20UBT009	920420UBT009	SANDOSHMANI.R	29	46	75
10	20UBT010	920420UBT010	RAVINA.R	31	39	70
11	20UBT011	920420UBT011	MOULI MONISHA.V	35	42	77
12	20UBT012	920420UBT012	ARAVIND.R	29	42	71
13	20UBT013	920420UBT013	AKASH DEV.M.S	30	38	68
14	20UBT014	920420UBT014	KEERTHI VASAN.V	29	44	73
15	20UBT015	920420UBT015	DINESH.R	38	43	81
16	20UBT017	920420UBT017	JASMINE KILDA.L	33	50	83
17	20UBT018	920420UBT018	MADHUMITHA.K	35	48	83
18	20UBT019	920420UBT019	DEEJITH NAATIYAAL.M.S	30	43	73
19	20UBT020	920420UBT020	KAMALI.S	34	50	84
20	20UBT021	920420UBT021	SINDHUJA.S	32	39	71
21	20UBT022	920420UBT022	NITHYASREE.A	29	40	69
22	20UBT023	920420UBT023	VARSHINIRAJI.P	32	41	73
23	20UBT024	920420UBT024	ABINAYA.J	34	52	86
24	20UBT025	920420UBT025	SAIBHAVADHARANI.B	36	49	85
25	20UBT026	920420UBT026	GOKULNATH.S	32	44	76
26	20UBT027	920420UBT027	SUBHIKSHA.S	34	52	86
27	20UBT028	920420UBT028	VARSHA.G.V	29	46	75
28	20UBT029	920420UBT029	RINISHA.R	26	42	68
29	20UBT030	920420UBT030	NARASINGAM.R	24	37	61
30	20UBT031	920420UBT031	JOHN PAUL HUDSON.S	30	43	73
31	20UBT032	920420UBT032	JEGADEESH.M	30	44	74

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Department: Biotechnology
Year: 2021-22

Regulation: R2020
Semester: Even

MARK STATEMENT

S.No.	Roll Number	Reg Number	Student Name	Internal Marks	External Marks	Final Marks
32	20UBT033	920420UBT033	VAIRAMUTHU.P	31	42	73
33	20UBT034	920420UBT034	VAISHAALI.A.M	34	22	56
34	20UBT035	920420UBT035	YOGASRI.M	33	51	84
35	20UBT036	920420UBT036	BOOJITHA.E	29	35	64
36	20UBT037	920420UBT037	LAMIYA BANU.M	26	40	66
37	20UBT038	920420UBT038	VARSHA.E	26	34	60
38	20UBT039	920420UBT039	SAKTHI SUREGA.P	30	38	68
39	20UBT041	920420UBT041	MINUSHA.S	30	44	74
40	20UBT042	920420UBT042	VINODHINI.R	29	49	78
41	20UBT043	920420UBT043	CERLICLADIYA.P	33	50	83
42	20UBT044	920420UBT044	SHANKAR GANESH.M.V	31	45	76
43	20UBT045	920420UBT045	HARSINI.S	28	39	67
44	20UBT046	920420UBT046	PRASANNA VENGATESH.V	32	43	75
45	20UBT049	920420UBT049	NITHYASHREE.S.R	34	52	86

VAC Coordinators
Dr K.Geetha
Dr S.Karthikumar
Dr R.Shyam Kumar

HoD/BT
Dr R.Shyam Kumar

Dean (Academic Courses)

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MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

Department: Biotechnology Regulation: R2020

Year: 2021-22 Semester: Even

GRADE SHEET

S.No.	Roll Number	Student Name	Mini project	Presentation	Test	Internal Marks	External Marks	Total Marks
		Marks alloted	**10**	**10**	**20**	**40**	**60**	**100**
1	20UBT001	SRIDIVYA.R	10	10	16	36	51	87
2	20UBT002	SUDHARSAN.M	10	7	8	25	39	64
3	20UBT003	JEFFRY DANIEL.D	10	8	10	28	44	72
4	20UBT004	GIRITHARAN.S	10	8	13	31	48	79
5	20UBT005	SIVA SANKARI.K	10	7	14	31	49	80
6	20UBT006	THILSATH MEERAL.S	10	8	15	33	44	77
7	20UBT007	GOBIKA.G	10	8	11	29	42	71
8	20UBT008	FAHEEMA THAHASEEN.A	10	9	15	34	38	72
9	20UBT009	SANDOSHMANI.R	10	7	12	29	46	75
10	20UBT010	RAVINA.R	10	9	12	31	39	70
11	20UBT011	MOULI MONISHA.V	10	9	16	35	42	77
12	20UBT012	ARAVIND.R	10	8	11	29	42	71
13	20UBT013	AKASH DEV.M.S	10	8	12	30	38	68
14	20UBT014	KEERTHI VASAN.V	10	8	11	29	44	73
15	20UBT015	DINESH.R	10	9	19	38	43	81
16	20UBT017	JASMINE KILDA.L	10	7	16	33	50	83
17	20UBT018	MADHUMITHA.K	10	8	17	35	48	83
18	20UBT019	DEEJITH NAATIYAAL.M.S	10	9	11	30	43	73
19	20UBT020	KAMALI.S	10	8	16	34	50	84
20	20UBT021	SINDHUJA.S	10	9	13	32	39	71
21	20UBT022	NITHYASREE.A	10	8	11	29	40	69
22	20UBT023	VARSHINIRAJI.P	10	9	13	32	41	73
23	20UBT024	ABINAYA.J	10	8	16	34	52	86
24	20UBT025	SAIBHAVADHARANI.B	10	9	17	36	49	85
25	20UBT026	GOKULNATH.S	10	9	13	32	44	76
26	20UBT027	SUBHIKSHA.S	10	7	17	34	52	86
27	20UBT028	VARSHA.G.V	10	8	11	29	46	75
28	20UBT029	RINISHA.R	10	7	9	26	42	68
29	20UBT030	NARASINGAM.R	10	7	7	24	37	61
30	20UBT031	JOHN PAUL HUDSON.S	10	8	12	30	43	73
31	20UBT032	JEGADEESH.M	10	8	12	30	44	74
32	20UBT033	VAIRAMUTHU.P	10	8	13	31	42	73
33	20UBT034	VAISHAALI.A.M	10	8	16	34	22	56
34	20UBT035	YOGASRI.M	10	8	15	33	51	84
35	20UBT036	BOOJITHA.E	10	8	11	29	35	64
36	20UBT037	LAMIYA BANU.M	10	7	9	26	40	66

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Department: Biotechnology Regulation: R2020

Year: 2021-22 Semester: Even

37	20UBT038	VARSHA.E	10	6	10	**26**	**34**	**60**
38	20UBT039	SAKTHI SUREGA.P	10	9	11	**30**	**38**	**68**
39	20UBT041	MINUSHA.S	10	9	11	**30**	**44**	**74**
40	20UBT042	VINODHINI.R	10	8	11	**29**	**49**	**78**
41	20UBT043	CERLICLADIYA.P	10	8	15	**33**	**50**	**83**
42	20UBT044	SHANKAR GANESH.M.V	10	9	12	**31**	**45**	**76**
43	20UBT045	HARSINI.S	10	7	11	**28**	**39**	**67**
44	20UBT046	PRASANNA VENGATESH.V	10	8	14	**32**	**43**	**75**
45	20UBT049	NITHYASHREE.S.R	10	9	15	**34**	**52**	**86**

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HoD/BT
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Sl No 20

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DEPARTMENT OF BIOTECHNOLOGY

Industry Certified Value Added Programme

On

MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

FEEDBACK FORM

Roll No: .....
Name: .....
Date: .....

A. FEEDBACK ON GENERAL ASPECTS OF VALUE ADDED PROGRAMME:

1. The programme provided an insight to apply the knowledge gained for development of a small scale industry

   ☆☆☆☆☆

2. The programme provided an insight to identify and analyze simple solutions for industrial applications

   ☆☆☆☆☆

3. The programme provided an insight to design solutions for environmental problems

   ☆☆☆☆☆

4. The programme provided an insight to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data in various entrepreneurial ventures.

   ☆☆☆☆☆

5. The programme provided an insight to create, select, and apply appropriate techniques, resources, and modern engineering tools and software.

   ☆☆☆☆☆

6. The programme provided an insight to effectively function as an individual, and as a member in teams in multidisciplinary settings.

   ☆☆☆☆☆

7. The programme provided an insight to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

   ☆☆☆☆☆

B. FEEDBACK ON SESSIONS:

8. Rate the course module and content of the Value added programme.

   ☆☆☆☆☆

9. Rate the infrastructure facilities provided to conduct the programme.

   ☆☆☆☆☆

10. The allotted time to complete the task given during the programme was sufficient.

☆☆☆☆☆

11. Rate the Theory sessions handled for Vermicomposting and Mushroom cultivation by Internal Resources.

☆☆☆☆☆

12. Rate the basic Hands-on sessions handled for Vermicomposting and Mushroom cultivation by Internal Resources.

☆☆☆☆☆

13. Rate the Industrial training on Vermicomposting at JP Sustainable Foundation, Kulloorsandai, Virudhunagar.

☆☆☆☆☆

14. Rate the Industrial training on Mushroom cultivation by Mr R.Vijayakumar, Vcare Agro Tech Mushroom Farm, Mushroom Cultivation training centre, Madurai.

☆☆☆☆☆

15. Overall how will you rate the Value added programme.

☆☆☆☆☆

C. SUGGESTIONS FOR IMPROVEMENT:

16. Write any two best features of the Value added programme.

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17. Write any two features that can be improved in the Value added programme.

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18. Please give your valuable suggestions for the improvement of the programme.

Programme Coordinator

HOD/BT

Sl. No. 183

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Industry Certified Value Added Programme

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MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

PRE- & POST- ASSESSMENT ANALYSIS REPORT

Total number of students: 45

Sl No	Questions	Pre-assessment	Post-assessment
		Average Rating	
1	I am familiar with the concept of Mushroom cultivation.	3.02	**4.74**
2	I can differentiate between various techniques used for seed preparation for mushroom cultivation.	2.42	**4.56**
3	I can prepare mushroom cultivation beds	2.47	**4.86**
4	I am clear with the different methods used for cultivation of different types of mushrooms.	2.31	**4.63**
5	I am aware of the process involved in harvesting and storage of mushrooms.	2.51	**4.72**
6	I am aware of the role of mushroom cultivation in small scale industry.	2.38	**4.79**
7	I know the importance of Vermicomposting.	3.38	**4.65**
8	I understand the principle behind vermicomposting technique.	2.49	**4.58**
9	I am aware of important types of vermicompost bed preparation.	2.22	**4.67**
10	I am aware of the advantages of vermicompost over chemical fertilizers.	3.00	**4.70**
11	I can explain the design and process of vermicomposting techniques.	2.00	**4.49**
12	I can design a small scale vermicompost production unit.	2.07	**4.53**

Pre-Assessment Survey: EXPECTATIONS

Q 13: MY EXPECTATIONS FROM THIS VALUE ADDED PROGRAMME ARE: RESPONSES FROM STUDENTS (Write atleast 2 points):

More about mushroom cultivation and vermicomposting
To know the importance of mushroom cultivation and vermicompost and develop my skills
Two grasp exact concepts behind the course. To grow my skills in this field so that I can spread my thoughts to income
I expect that I will able to do this cultivation process by my own after completing this course.
To get a hand done experience with full knowledge in the techniques.
To Learn more about important of vermicomposting and mushroom cultivation
Improve my industrial skills
To learn the detailed process of Vermicomposting and mushroom cultivation
To learn about vermicompost and mushroom cultivation clearly
Learn more about the biofarms ans their uses
Opportunity to students to develop their skills
To study more about mushrooms cultivation and vermicomposting
Learning techniques and importance of these skills
I want to learn techniques behind the mushroom cultivation and vermicomposting.
Explore new things
I expect to learn a lot from this programme
To enhance the knowledge from the subject of farming
To known the process of vermicomposting and mushrooms cultivation clearly.
Learn more about mushroom cultivation and vermicomposting and get a clear idea about their applications in industries
I want to explore more in terms of industrial and business perspective.
I want to learn more information for this program.
To learn the detailed process of mushroom cultivation and vermicompositing
I would like to improve my skills through this value added program, Helps me improve my entrepreneurship, Might help me in exploring all techniques
To gain good knowledge about vermicomposting and mushroom cultivation and to use the techniques if I had any chance and idea to be a entrepreneur.
Opportunity to students the develop the skil.
To gain knowledge about mushroom cultivation and to get an hand on experience in mushroom cultivation and vermicomposting technique
I am interested in learning of this mushroom cultivation and vermicomposting
To know the process of vermicomposting and mushroom cultivation
More ideas and experience from the topic
To learn the detail process of vermicompost
learn about vermicompost and aware of mushroom cultivation
★To be able to perform the vermicomposting and mushroom cultivation on my own.★To know the various new facilities in vermicomposting techniques that is to perform cloning of earthworms.
To learn the technique behind vermicompost and mushroom cultivation
I will get good hands-on experience by preparing mushroom cultivation and vermicomposting I will practice this at home.
To develop and improve skills.

It is very important to know mushroom cultivation and vermicomposting . It gives some idea about industry scale production
I can learn manythings in this course ,I think it is useful to my Carrier
1.I can learn many things 2.It's useful to us to do many experiment
To learn about vermicompost and mush room cultivation with full satisfaction
I expect that I will learn how to cultivate mushroom and vermi compost technology
To get to know about the methods and principles of Mushroom cultivation and Vermicomposting
To learn the methods of mushroom cultivation and vermicomposting clearly so that I would be able to do it on my own
To learn the importance of techniques behind the Vermicompost and Mushroom Cultivation

Post-Assessment Survey: OUTCOMES

Q 13: MY LEARNINGS FROM THIS VALUE ADDED PROGRAMME ARE (Write atleast 2 points):

RESPONSES FROM STUDENTS

It was a great experience
I've learnt so much by this time of program
It was a great experience and I learn about mushroom cultivation
I have learned new things!
Elegeble to start a small scale industry
I learnt a lot about these two techniques. And these techniques make to think in a different manner. Thank you so much for this value added course.
This gives a new ideas to start a business with the basic knowledge about the field . I can now start a business if I really need to be an entrepreneur there is no doubt about that
It was a nice experience
I learnt how to produce and maintain the vermicompost and mushroom and very useful program
Now I am able do mushroom cultivation on own. I clear with the concept of mushroom cultivation
It is a very nice session and we learnt so many things about vermicompost and mushroom cultivation . particularly mushroom cultivation is very useful and very intersting .
I learned many new technique , process and advantage of this topic... Both the topic are very interesting... Thank you so much for this wonderful session
To provide an opportunity to students to develop inter-disciplinary skills.
Can do vermicompost bed and mushroom bed
I have developed entrepreneurship, I have obtained skills and techniques of vermicomposting and mushroom cultivation, I wanted to explore the different techniques involved in these programs
It is very very useful we learnt more about vermicomposting and about the mushroom cultivation other than the topic we learnt about the entrepreneurs and we learnt the process we do for business ..... Thank you so much for giving this experience
From this value added programme I learnt the importance and advantages of mushroom cultivation, vermi composting. I am inspired by the resources person who shared lot of his experience regarding mushroom cultivation business. Gratefully I will be able to achieve higher in this business.
It was very amazing week of value added program. It was very lively and very clear and whole understandable about basic methods which yields higher outcome.
So now i can fullfilly step into the vermicomposting and mushrooms cultivation businesses.from

this value added course i have learned all technics involved in vermicomposting and mushrooms cultivation.
I came to know more about mushroom cultivation and vermi composting..and I like to try it out.
It gives a complete idea of vermicomposting and mushroom cultivation
I thank our management to give a clear idea about mushroom cultivation and vermicomposting. I confidence to keep a mushroom industry cultivation . I learn many things how to prepare mushroom beds and vermicomposting. Thanks for giving a wonderful idea to shine our future.
Very informative and useful. We can become a new entrepreneur
The program is very effective and I learned the various techniques used in mushroom cultivation and vermicomposting .I also learned about the difference between theoretical method and practical applications
I got to learn the experience of veteran entrepreneur of their respective field ,got insigts about socitially level applications in mushroom cultivation and vermicomposting.
Program learning outcomes are the skills, competencies, and "big ideas"
It is very useful for me
I learned a clear harvesting process of vermicomposting and mushroom culture
I am clear with the concept of vermicomposting and mushroom cultivation, it's importance and the profit behind the business
It's useful for my studies. I learned more information for this program
We come to know many information about vermicompositing and mushroom cultivation
Only book is not other than that many things are there to learn.
I am much more confident on methods and techniques of mushroom cultivation and vermicomposting. The program was very useful and informative. Doing these techniques Practically was very helpful.
From this training I have learned a complete package of vermicomposting and mushroom cultivation. I have learned how to create a bed for mushroom cultivation
Learning about mushroom cultivation and doing it practically has given me an encouragement to start this mushroom cultivation at home at a small scale level and I am even planning on starting my own mushroom farm some day
I have had an opportunity in hands on experience with vermicomposting and mushroom cultivation . It is really motivational. It really helps to start up a own company , and this program inspired me a lot.
It is very usefull for our future
I learn the different type of worms.And how to help this worms in vermicomposting.I learn prepare the bed(mushroom)
We can even cultivate mushrooms at our homes in a small area,mushrooms are rich in proteins. The problems that an entrepreneur faces in the field of vermicomposting and the process of making beds for vermicomposting.

Programme Coordinators

Forms(https://www.office.com/launch/forms?auth=2&from=FormsDomain)

Pre-Assessment Survey:Industry Certified VAP on "Mushroom Cultivation and Vermicomposting

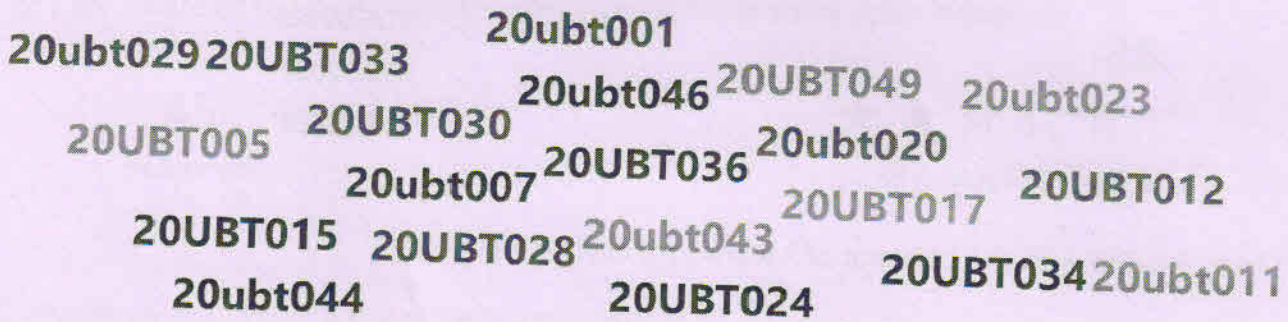
45	04:14	Active
Responses	Average time to complete	Status

1. Roll Number

45
Responses

Latest Responses
"20UBT014"
"20UBT008 "
"20UBT003"

1 respondents (2%) answered **20UBT036** for this question.



2. Name

45
Responses

Latest Responses
"Keerthi Vasan.V"
"A. FAHEEMA THAHASEEN "
"D. Jeffry Daniel"

2 respondents (**4**%) answered **R** for this question.

3. Date

45
Responses

Latest Responses
"11/22/2022"
"2/22/2022"
"2/22/2022"

4. 1) I am familiar with the concept of Mushroom cultivation.

45
Responses

★★★☆☆
3.02 Average Rating

5. 2) I can differentiate between various techniques used for seed preparation for mushroom cultivation.

45
Responses

★★☆☆☆
2.42 Average Rating

6. 3) I can prepare mushroom cultivation beds

45
Responses

2.47 Average Rating

7. 4) I am clear with the different methods used for cultivation of different types of mushrooms.

45
Responses

2.31 Average Rating

8. 5) I am aware of the process involved in harvesting and storage of mushrooms.

45
Responses

2.51 Average Rating

9. 6) I am aware of the role of mushroom cultivation in small scale industry.

45
Responses

2.38 Average Rating

10. 7) I know the importance of Vermicomposting.

45
Responses

3.38 Average Rating

11. 8) I understand the principle behind vermicomposting technique.

45
Responses

2.49 Average Rating

12. 9) I am aware of important types of vermicompost bed preparation.

45
Responses

★★☆☆☆
2.22 Average Rating

13. 10) I am aware of the advantages of vermicompost over chemical fertilizers.

45
Responses

★★★☆☆
3.00 Average Rating

14. 11) I can explain the design and process of vermicomposting techniques.

45
Responses

★★☆☆☆
2.00 Average Rating

15. 12) I can design a small scale vermicompost production unit.

45
Responses

★★☆☆☆
2.07 Average Rating

16. 13) **MY EXPECTATIONS FROM THIS VALUE ADDED PROGRAMME ARE: (Give atleast two points)**

43
Responses

Latest Responses

"To learn the importance of techniques behind the Vermicompost and ...

"To learn the methods of mushroom cultivation and vermicomposting ...

"To get to know about the methods and principles of Mushroom cultiv...

22 respondents (**49%**) answered **mushroom cultivation** for this question.

Programme Coordinator

HOD | BT

Forms(https://www.office.com/launch/forms?auth=2&from=FormsDomain)

Post-Assessment Survey:Industry Certified VAP on "Mushroom Cultivation & Vermicomposting

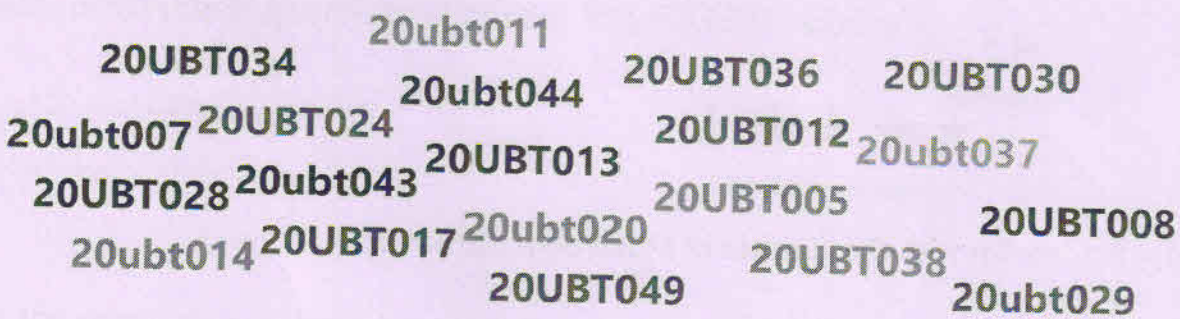
43	03:44	Active
Responses	Average time to complete	Status

1. Roll Number

43
Responses

Latest Responses
"20ubt046 "
"20ubt001"
"20UBT033"

1 respondents (**2**%) answered **20UBT013** for this question.



2. Name

43
Responses

Latest Responses
"V. PRASANNA VENGATESH "
"Sridivya.R"
"VAIRAMUTHU.P"

2 respondents (5%) answered R for this question.

shankar ganesh Sakthi Surega B Saibhavadharani
Mlamiya Banu S Subhiksha D Jeffry Daniel R Vinodhini A Nithyasree
RSanthosh mani L Jasmine Kilda R M S Deejith Naatiyaal
S Kamali P Cerli
SANKARI R RINISHA A FAHEEMA THAHASEEN
Sthilsath meeral SIVA VKeerthi Vasan

3. Date

43
Responses

Latest Responses
"2/27/2022"
"2/26/2022"
"2/27/2022"

4. 1) I am familiar with the concept of Mushroom cultivation.

43
Responses

★★★★★
4.74 Average Rating

5. 2) I can differentiate between various techniques used for seed preparation for mushroom cultivation.

43
Responses

★★★★½
4.56 Average Rating

6. 3) I can prepare mushroom cultivation beds

43
Responses

4.86 Average Rating

7. 4) I am clear with the different methods used for cultivation of different types of mushrooms.

43
Responses

4.63 Average Rating

8. 5) I am aware of the process involved in harvesting and storage of mushrooms.

43
Responses

4.72 Average Rating

9. 6) I am aware of the role of mushroom cultivation in small scale industry.

43
Responses

4.79 Average Rating

10. 7) I know the importance of Vermicomposting.

43
Responses

4.65 Average Rating

11. 8) I understand the principle behind vermicomposting technique.

43
Responses

4.58 Average Rating

12. 9) I am aware of important types of vermicompost bed preparation.

43
Responses


4.67 Average Rating

13. 10) I am aware of the advantages of vermicompost over chemical fertilizers.

43
Responses


4.70 Average Rating

14. 11) I can explain the design and process of vermicomposting techniques.

43
Responses


4.49 Average Rating

15. 12) I can design a small scale vermicompost production unit.

43
Responses


4.53 Average Rating

16. 13) **LEARNING OUTCOMES FROM THIS VALUE ADDED PROGRAMME ARE: (Give atleast two points)**

40
Responses

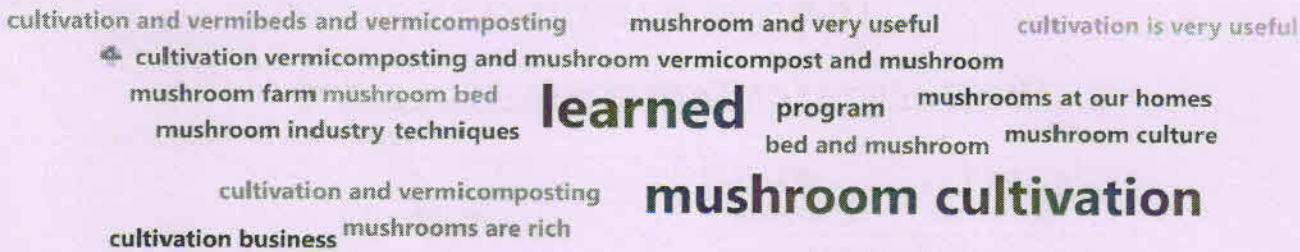
Latest Responses

". "

"We can even cultivate mushrooms at our homes in a small area,mush...

"I learn the different type of worms.And how to help this worms in ver...

19 respondents (**44%**) answered **learned** for this question.



Programme Coordinator

HOD/BT

Sl. No 20

FEEDBACK FORM: Industry Certified VAP on "Mushroom Cultivation and Vermicomposting 2021-22

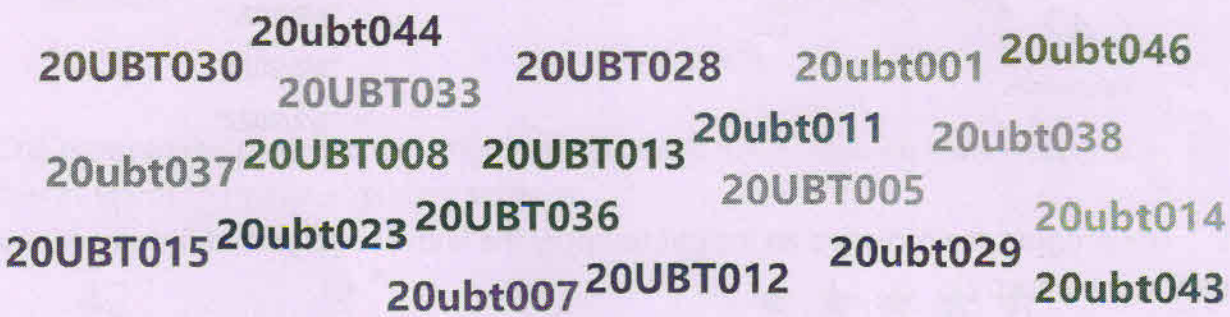
42	06:47	Active
Responses	Average time to complete	Status

1. Roll Number

42
Responses

Latest Responses
"20UBT017"
"20UBT049"
"20ubt020"

1 respondents (**2**%) answered **20UBT013** for this question.



2. Name

42
Responses

Latest Responses
"L. Jasmine kilda"
"NITHYASHREE S R "
"S. Kamali"

2 respondents (5%) answered **R** for this question.

3. Date

42
Responses

Latest Responses
"3/2/2022"
"3/2/2022"
"3/2/2022"

4. 1. The programme provided an insight to apply the knowledge gained for development of a small scale industry.

42
Responses

★★★★½
4.60 Average Rating

5. 2. The programme provided an insight to identify and analyze simple solutions for industrial applications

42
Responses

★★★★☆
4.48 Average Rating

6. 3. The programme provided an insight to design solutions for environmental problems

42
Responses

4.57 Average Rating

7. 4. The programme provided an insight to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data in various entrepreneurial ventures

42
Responses

4.43 Average Rating

8. 5. The programme provided an insight to create, select, and apply appropriate techniques, resources, and modern engineering tools and software

42
Responses

4.50 Average Rating

9. 6. The programme provided an insight to effectively function as an individual, and as a member in teams in multidisciplinary settings

42
Responses

4.52 Average Rating

10. 7. The programme provided an insight to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

42
Responses

4.48 Average Rating

11. 8. Rate the course module and content of the Value added programme.

42
Responses

★★★★★
4.69 Average Rating

12. 9. Rate the infrastructure facilities provided to conduct the programme.

42
Responses

★★★★★
4.71 Average Rating

13. 10. The allotted time to complete the task given during the programme was sufficient

42
Responses

★★★★☆
4.38 Average Rating

14. 11. Rate the Theory sessions handled for Vermicomposting and Mushroom cultivation by Internal Resources.

42
Responses

★★★★½
4.48 Average Rating

15. 12. Rate the basic Hands-on sessions handled for Vermicomposting and Mushroom cultivation by Internal Resources.

42
Responses

★★★★½
4.55 Average Rating

16. 13. Rate the Industrial training on Vermicomposting at JP Sustainable Foundation, Kulloorsandai, Virudhunagar.

42
Responses

★★★★★
4.62 Average Rating

17. 14. Rate the Industrial training on Mushroom cultivation by Mr R.Vijayakumar, Vcare Agro Tech Mushroom Farm, Mushroom Cultivation training centre, Madurai.

42
Responses

★★★★★
4.62 Average Rating

18. 15. Overall how will you rate the Value added programme.

42
Responses

★★★★★
4.74 Average Rating

19. 16. Write any two best features of the Value added programme.

40
Responses

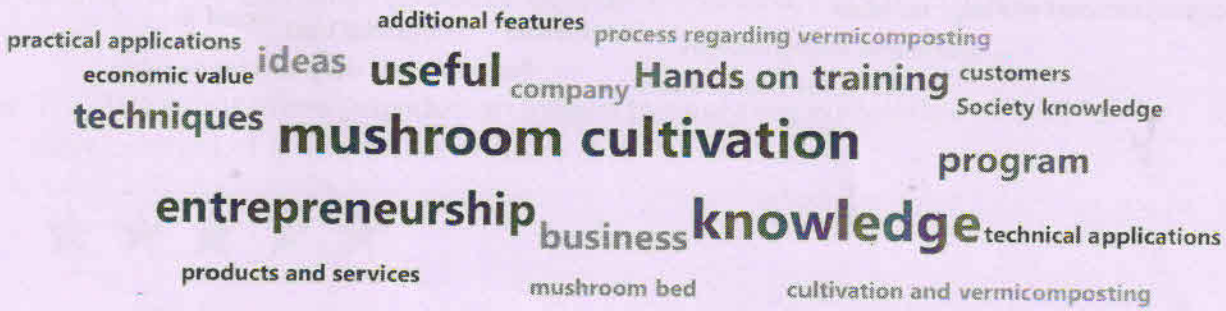
Latest Responses

"Came Out fo the book and entered into reality and learned about Int..."

"Great exposure for students in enterprenership and we got insights in ..."

"Entered into reality to learn new method"

6 respondents (**15%**) answered **mushroom cultivation** for this question.



20. 17. Write any two features that can be improved in the Value added programme.

39
Responses

Latest Responses

"Nothing"

"Hands on training days can be increased "

"Learned many new things and new techniques"

6 respondents (15%) answered **mushroom cultivation** for this question.

21. 18. Please give your valuable suggestions for the improvement of the programme.

39
Responses

Latest Responses

"Nothing all is good"

"Self activities can be given "

"It's really good and useful"

6 respondents (15%) answered **program** for this question.

Programme coordinators

HOD/BT

Respondent

1 Anonymous

01:27
Time to complete

1. Roll Number *

20UBT013

2. Name *

M.S.AKASH DEV

3. Date *

2/26/2022

Feedback on General aspects of Value Added Programme

4. 1. The programme provided an insight to apply the knowledge gained for development of a small scale industry. *

★ ★ ★ ★ ★

5. 2. The programme provided an insight to identify and analyze simple solutions for industrial applications *

★ ★ ★ ★ ★

6. 3. The programme provided an insight to design solutions for environmental problems *

★ ★ ★ ★ ★

7. 4. The programme provided an insight to use research-based knowledge and research methods including design of experiments, analysis and interpretation of data in various entrepreneurial ventures *

★ ★ ★ ★ ★

8. 5. The programme provided an insight to create, select, and apply appropriate techniques, resources, and modern engineering tools and software *

★ ★ ★ ★ ★

9. 6. The programme provided an insight to effectively function as an individual, and as a member in teams in multidisciplinary settings *

★ ★ ★ ★ ☆

10. 7. The programme provided an insight to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. *

★ ★ ★ ★ ☆

Feedback on Sessions

Give fair feedback on each session.

11. 8. Rate the course module and content of the Value added programme. *

★ ★ ★ ★ ★

12. 9. Rate the infrastructure facilities provided to conduct the programme. *

★ ★ ★ ★ ★

13. 10. The allotted time to complete the task given during the programme was sufficient *

★ ★ ★ ★ ☆

14. 11. Rate the Theory sessions handled for Vermicomposting and Mushroom cultivation by Internal Resources. *

★ ★ ★ ★ ☆

15. 12. Rate the basic Hands-on sessions handled for Vermicomposting and Mushroom cultivation by Internal Resources. *

★ ★ ★ ★ ☆

16. 13. Rate the Industrial training on Vermicomposting at JP Sustainable Foundation, Kulloorsandai, Virudhunagar. *

★ ★ ★ ★ ★

17. 14. Rate the Industrial training on Mushroom cultivation by Mr R.Vijayakumar, Vcare Agro Tech Mushroom Farm, Mushroom Cultivation training centre, Madurai. *

★ ★ ★ ★ ★

18. 15. Overall how will you rate the Value added programme. *

★ ★ ★ ★ ★

Suggestions for Improvement

19. 16. Write any two best features of the Value added programme. *

We learnt other than a subject

20. 17. Write any two features that can be improved in the Value added programme. *

Nothing

21. 18. Please give your valuable suggestions for the improvement of the programme. *

Good

Programme Coordinator

HoD | BT

Sl No. 21

KAMARAJ
COLLEGE OF ENGINEERING & TECHNOLOGY
(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI)
S.P.G.Chidambara Nadar - C.Nagammal Campus
S.P.G.C. Nagar, K.Vellakulam – 625 701 (Near VIRUDHUNAGAR).

DEPARTMENT OF BIOTECHNOLOGY

Industry Certified Value Added Programme

On

MUSHROOM CULTIVATION AND VERMICOMPOSTING

22/02/2022 to 26/02/2022

SUMMARY REPORT

A **five days Industry Certified Value Added Programme** entitled "**Mushroom Cultivation and Vermicomposting"** was organized by Department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar, in association with V - CARE AGRO TECH, Madurai and Jeypee Sustainability Foundation, Virudhunagar, from 22nd to 26th February 2022 for II B.Tech Biotechnology students. The major objective of this programme was to give an insight on Entrepreneurship to the students and to provide hands on training in Biofertilizer production and Mushroom cultivation so that students will be able to learn the basic aspects of Mushroom cultivation and vermi-composting. "Mushroom" is an application part of Microbiology and Industrial biotechnology course work the students have learnt. This VAP helped them to develop entrepreneurship focus on Mushroom based product development. Vermicomposting training taught them how to start a Biofertilizer unit.

Day 1 of the programme started with a short **Inauguration session** where our Head of the Department D R.Sham Kumar introduced the theme of the VAP. This was followed by two sessions on the basic Introduction Theory behind Vermicomposting by Dr K.Geetha, ASP/BT. The afternoon sessions were handled by Dr S.Karthikumar and Dr R.Shyam Kumar where they gave a demonstration on how to prepare vermin beds in small scale. The students practiced preparing dummy beds as a part of this session.

Day 2 started with an interesting session on Applications of Vermicomposting and Vermiwash by Dr R. Shyam Kumar who gave a detailed insight into various fields where Vermicompost and Vermiwash are being used successfully. This was followed by a session on Basic introduction and Theory behind Mushroom cultivation which was handled by Dr K.Geetha. The afternoon session of Day 2 was again a hands-on session on cultivation of pure culture for Mushroom cultivation process handled by Dr Karthikumar.

Day 3 was planned as an industrial visit to Jeypee Sustainability Foundation, Virudhunagar for a hands-on training on large scale production of Vermicomposting. The

students were taken to the industry in college bus and they were accompanied by Dr R.Shyam Kumar and Dr S.Karthikumar along with out senior lab technician Mr. Jaykumar. The industrial training on vermicomposting was handled by Mr. R. Palaneeshwar, Director, who gave a hands-on training on Vermicomposting along with intermittent inspirational talk on Entrepreneurship. The students spent one whole day in the industry to learn how vermicomposting is carried out at large scale. They also learnt the business side of the process.

Day 4 and 5 were completely dedicated to Mushroom cultivation. Hands-on training was given by Mr. R. Vijay Kumar, VCare Agro Tech, Madurai. On **4th day** the students were given training on pre-treatment of paddy straw for mushroom bed preparation followed by guest lecture on various aspects of Mushroom cultivation like growth, maintenance, production, marketing and sustainability. The **5th day** was a complete hands-on session on mushroom bed preparation and inoculation of mushroom spores in various methods. Finally the day ended with a short **Valedictory function** where students gave oral feedback and also certificates were distributed to all students. Overall students had a complete knowledge filled 5 days of Value addition to their Biotechnology career.

28/2/2022

Programme Coordinators

HoD/BT