

(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 Course

On

# ALGAL TECHNOLOGY AND APPLICATIONS

# 6<sup>th</sup> to 10<sup>th</sup> January 2025

VAE Coordinators

Dr K.Geetha

Dr S.Karthikumar

Dr R.Shyam Kumar

HoD/BT

Dr R.Shyam Kumar

Verfied

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#### **DEPARTMENT OF BIOTECHNOLOGY**

Sl No	<b>Content Check List</b>	and a local de la	Document
. 1	Academic Year	:	2024-2025
2	Regulation	ŝ	R2021
3	Department Name	:	Biotechnology
4	Name of the Value-added course		Industry Certified Value Added Course on ALGAL TECHNOLOGY AND APPLICATIONS
5	No. of Credits Category:	:	02
6	Theory/Lab/Hands- on/Skill based etc	:	Hands-on/Skill based
7	Name and Details of the Joint-organization (industry/NGO etc) if any		<ol> <li>Sea2Farm, C2, Floor No:6/104, Muthunal Road, Surankottai, Ramanathapuram (Dist) 623517, Tamil Nadu, India.</li> <li>Phycospora Breeding &amp; Propagate, 15/16A, Sallimalai, GP Road, Ramanathapuram 623526, Tamil Nadu, India.</li> </ol>
8	Resource person details	:	<ol> <li>Mr. R.P.Rajadurai Jesudoss, Manager, Sea2Farm, Ramnadapuram, Tamil Nadu</li> <li>Mr M.Selva Kumar, Technical Lead, Phycospora Breeding &amp; Propagate, 15/16A, Sallimalai, GP Road, Ramanathapuram 623526</li> </ol>
9	Three Member Committee details		<ol> <li>Dr.R.Shyam Kumar (Head/BT &amp; Convener)</li> <li>Dr.K.Geetha (Associate Professor / BT &amp; Member)</li> <li>Dr.S.Karthikumar (Associate Professor / BT &amp; Member)</li> </ol>
10	VAC Coordinator Details		Dr K.Geetha, Dr S.Karthikumar & Dr R.Syam Kumar
11	Duration (30 h mandatory)		
12	Period (From-To)		6 <sup>th</sup> to 10 <sup>th</sup> January 2025
13	Venue	¢.	<ol> <li>Department of Biotechnology, KCET</li> <li>Sea2Farm, C2, Floor No:6/104, Muthunal Road, Surankottai, Ramanathapuram (Dist) 623517, Tamil Nadu, India</li> </ol>

VAP Coordinators

Chief Coordinator (Academic Core)

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HoD/BT

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#### DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course On ALGAL TECHNOLOGY AND APPLICATIONS 6<sup>th</sup> to 10<sup>th</sup> January 2025

#### **Enclosures:**

SI No	Check List	Availability
1	Institution Approval Copy	V
2	Circular	V
3	Syllabus Copy with Course outcomes	V
4	BoS Approval	V
5	Three Member Committee MoM	V
6	Geo-Tagged Photos	V
7	Certificates of all participants	
8	Examination Schedule	V
9	Questions & Answer Keys	$\checkmark$
10	Attendance Sheet	V
11	Evaluated Answer script	
12	Test Report	1
13	Mark Statement	V
14	Grade Sheet	
15	Feedback form	V
16	Feedback analysis and Report	
17	Programme Summary / Report	V
18	Students' oral feedback (recorded video)	2=
19	VAC – Short Video	1

1 VAP Coordinators Dr K.Geetha Dr S.Karthikumar Dr R.Shyam Kumar

Dr R.Shyam Kumar

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ECHNOL COLLEGE OF ENGINEERING & (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) APPROVAL BOOK Date 20 12 2024 BIOTECH Book No. 40 SL.No. Approval for Conduction of Value Added Programme Approval may please be given to conduct Value Added Course ( Industry Cubified) on "Algal Technology and Applications" from 6th to 10th Jac 2025 in Collaboration with See 2 Form Endustry, Rameswaren The total Gudget is Ro 1,06,000 with Ro 2000/per student. The details are attached how it along with Program Schedule. The VAP is organized for II Blad Bistcheslogy students. Kindly give your approved. Thank You Tupe (Pr Khalka) 21/2 Lu Signature of Staff OFFICE USE Added Cours 1) Account Head Budget allotted Amount committed / Spent sofar 4) Balance available Administrative Officer Secretary



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# DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Programme on "ALGAL TECHNOLOGY AND APPLICATIONS" 6<sup>th</sup> to 10<sup>th</sup> January 2025 PROGRAMME PROPOSAL

#### **Objective:**

- Know about different types of algae and their diversification.
- Know about cultivation of micro and macro algae.
- Learn the application of algae in various biotechnological perspectives

#### Need for the Value Added Program:

- The major objective of this program is to give an insight on basics of Algal Technology and Entrepreneurship development to the students and to provide hands-on training in seaweed cultivation and product development so that students will be able to learn the basic aspects of seaweed cultivation and apply them towards product development from seaweed, fostering innovation and sustainable business practices.
- "Algae" 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 Algae based product development.

#### **Target Participants:**

Class: II B.Tech. Biotechnology (2023-27 Batch)

No. of students: 53

**Duration:** 5 Days

Tentative Dates: 6th to 10th January 2025

Programme Coordinators: Dr K.Geetha, Dr S.Karthikumar and Dr R.Shyam Kumar

#### **Expected Outcome:**

- The students will learn the necessary skills and knowledge for the cultivation of Algae and product development from algae.
- This workshop also aims to motivate the students to take up Entrepreneurship as career prospective in future.

#### PROGRAM SCHEDULE

DATE	9.10 am to 10.00 am	10.00 am to 10.50 am	11.10am to 12.50pm	1.30 pm to 3.00 pm	3.15 pm to 4.25 pm
06/01/2025	Inaugural Session	Introduction to Algae, Types of Algae	Seaweed Introduction	Cultivatio	on strategies
07/01/2025	Natural Bio polymers and their applications	Seaweed a	extraction from and Processing	Hands-on Session or Bio polymer Extractio	
08/01/2025	27.1 1.17.1	on and Commerce	ce from Seaweeds	Hands	s-on session
09/01/2025	Industrial v	isit to Fisheries I	Department at Ram Industry	anathapuram a	
10/01/2025	Proj	Student ect Expo and Pre		Validation through test	Valedictory Session

#### Venue :

- 1) Theory part : Kamaraj college of engineering and technology.
- 2) Seaweed cultivation : Rameswarem shore.
- 3) Seaweed processing : Model unit, Department of fisheries, Rameswarem.

#### **Resource persons:**

- 1) Seaweed cultivation : Mrs. Poornima Aishwarya
- 2) Seaweed cultivation hands on training : Mr. Selvakumar
- 3) Seaweed processing and value addition : Er. R.P.Rajadurai jesudoss

#### BUDGET

SI.No	Category	Particulars	Total (Rs.)	
1		TA & DA for resource persons		
2		Fisheries department approval	Rs.1,00,700	
3	Training Charges	seaweed raw materials for hands on training		
4		seaweed culturing kit		
5		1 meal on field visit		
6		Transportation for field visit		
7	Kit	Note Pad and Pen: 53 x Rs.50	Rs 2,650	
8	Refreshment &	Tea, Snacks & Lunch for 2	Rs 2,650	
U	Lunch	Resource persons for 4 days		
		TOTAL	Rs. 1,06,000	
	Cost Per St	tudent: Rs. 1,06,000 / 53 = Rs.2,000		
	Cost Per St	tudent: Rs. 1,06,000 / 53 = Rs.2,000	105, 1	

HoD/BT

Programme Co-ordinators

Principal



To,

HOD, Department of Biotechnology, Kamaraj college of engneering and technology, Virudhunagar.

**Sub** : Quotation for value added course Algal technology.

#### **Respected Sir**,

As per the mail and telephonic conversation from Head of the department, Department of biotechnology, kamaraj college of engineering and technology, we have quoted the schedule and charges for the algal training for your students on January 2025.

Tentative schedule	: January 6th to 10th (5 days)
No of students	: 53
Program title	: Alagal technology

#### Venue :

- 1) Theory part : Kamaraj college of engineering and technology.
- 2) Seaweed cultivation : Rameswarem shore.
- 3) Seaweed processing : Model unit, Department of fisheries, Rameswarem.

#### **Resource person :**

1)	Seaweed cultivation	: Mrs. Poornima Aishwarya
2)	Seaweed cultivation hands on training	: Mr. Selvakumar
3)	Seaweed processing and value addition	: Er. R.P.Rajadurai jesudoss

#### Course fees : 1900 rs / student

Course fees includes : TA & DA for resource persons + Fisheries department approval + seaweed raw materials for hands on training + seaweed culturing kit + 1 meal on field visit + Transportation for field visit.

#### Program module and tentative schedule :

Day	Торіс
Day 1	Seaweed introduction & cultivation strategies
Day 2	Biopolymer extraction from seaweed and processing & practical session
Day 3	Value addition and commerce from seaweeds and practical session
Day 4	Filed training and industrial visit
Day 5	Students project expo and presentation

#### REMESWAREM

20.12.2024

Sea 2 Farm

Abraham Willington



#### Re: Requesting Permission for Institutional Visit - Reg

From VEERAPRAKSAM VEERAGURUNATHAN <veeragurunathan@csmcri.res.in>

Date Tue 1/7/2025 5:06 PM

To HODBT <hodbt@kamarajengg.edu.in>

Cc Geetha.K <geethabt@kamarajengg.edu.in>; Karthikumar.S <karthikumarbt@kamarajengg.edu.in>; jesuramnad@gmail.com <jesuramnad@gmail.com>; Dineshkumar R <dineshkumar@csmcri.res.in>; S Dinesh Kumar <dineshks@csmcri.res.in>; Satish Lakkakula <satishl@csmcri.res.in>

Dear Dr Shyam Kumar

Your proposed lab visit is confirmed. Please visit our lab on <u>08.01.2025@10.00AM-1.00PM</u>

Kind Regards VEERA

Dr. V. Veeragurunathan Principal Scientist & Scientist-In-Charge CSIR-CSMCRI-Marine Algal Research Station, Mandapam camp Ramnad-623519 Tamilnadu, India URL: <u>www.csmcri.res.in</u> Mob:9843850103



From: hodbt@kamarajengg.edu.in
To: "VEERAPRAKSAM VEERAGURUNATHAN" <veeragurunathan@csmcri.res.in>
Cc: geethabt@kamarajengg.edu.in, karthikumarbt@kamarajengg.edu.in, jesuramnad@gmail.com
Sent: Tuesday, January 7, 2025 2:05:47 PM
Subject: Requesting Permission for Institutional Visit - Reg

**Respected Sir** 

Greetings

Our college was established in the academic Year 1998. It is one of the pioneered Institutions in the field of Technical education in south zone of Tamil Nadu. We are proud to offer B.Tech (Bio Technology) and the Doctoral (Ph. D) programme in BioTechnology field.

We are writing to seek your kind permission to organize an educational visit to your organization including Herbarium collections for our B.Tech. II Year Biotechnology students as part of their Value-Added Course on **"Algal Technology and Its Applications."** This program is designed to provide students with a deeper understanding of the scientific and industrial advancements in algal biotechnology and its wide-ranging applications.

We propose to visit on 08/01/2025 (Wednesday) with a group of **53 students** and **4 faculty members**. We believe that this visit will offer our students an invaluable opportunity to witness cutting-edge research and practical applications in algal technology, fostering their knowledge and enthusiasm for the field.

We kindly request your approval for the visit and guidance regarding the necessary formalities or arrangements.

Thank you.

**Yours Sincerely** 

#### Shyam Kumar R

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Dr.R.Shyam Kumar, M.Sc., M.A., M.Tech., DMLT., Ph.D., FCY Professor & Head, Department of Biotechnology, Kamaraj College of Engineering & Technology (AUTONOMOUS), Virudhunagar - 626001 Ph.No: +91-9842644610



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## DEPARTMENT OF BIOTECHNOLOGY

Accredited by National Board of Accreditation, New Delhi

Proudly Organizes

Industry Certified Value Added Course on

# **Algal Technology and Applications**



Valedictory : 10 Jan 2025, 3.30 PM

# VENUE

# Smart Class Room - Department of Biotechnology

# FELICITATION BY

Dr.S.Pugalanthi Pandian, D.Ortho., MNAMS (Ortho), M.Ch-[Neuro Sur] (President)

> Thiru. K. R. Balakrishnan, B.B.A., (Vice-President)

CA. V. K. Dharmarajan, B.B.A., F.C.A., (Secretary)

Thiru. M. S. G. Murugan, B.Sc., (Joint Secretary) Er. S. P. G. C. Srimurugan, B.E., M.Sc., (Engg.) (Treasurer) Dr. S. Senthil, M.E., Ph. D.,

(Principal)

# We Cordially Invite you All



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHENNAI) S.P.G.C. Hagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

# **Resource Person Details**

Name of Programme: Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" from 6th to 10th January 2025

Name of Coordinator: Dr.K.Geeth, Dr S.Karthikumar & Dr R.Shyam Kumar

1. To develop tools for deciding the resource persons for the value added programs

-	. No	
II B.Tec	Class	
Seaweed processin g and value addition	Training Programme Planned	
Biotechno logy Departme nt	Offered by Department / TDP Cell	
Sea2Far m	Industry / Institute Associated with, if any	
C2, Floor No:6/104, Muthunal Road, Surankottai, Ramanathapura m (Dist) 623517, Tamil	Name & official address, Email Id, Ph. No.	Details of I
	Expertise (Teaching, Research, Industry, Others, if any)	Details of Internal Resources
•	Expertise with respect to domain area / title of the programm e	es
Mr. R.P.Rajadurai Jesudoss, Manager, Sea2Farm, Ramanathapuram,	ame & official ess, Email Id, Ph. No.	Details of Ex
Has 8 years of training experience and is also the manager of the Industry	5	Details of External Resource Persons
Has 8 years of training experienc e	Expertise with respect to domain area / title of the programme	SL

Signature of the Programme Coordinators

Signature of Head

N w Biotec hnolog Y h Algal Algae on of extractio on and Cultivati Biomass Cultivati cultivati on hands Seaweed training 010 cultivati Seaweed 01 Nadu, India Road, Sallimalai, GP m 623526, India Tamil Nadu, Ramanathapura 15/16A, Surankottai, Muthunal Road, No:6/104, C2, Floor В Ramanathapura 1 1 1 . Ph: Mr M.Selva +919944390334 E.Mail: Tamil Nadu Kumar, Technical jesuramnad@gmai GP Road, 16A, Sallimalai, Propagate, 15/ Breeding & .com com E.mail: Ramanathapuram Lead, Phycospora 9943684175 Ph: +91 selkmrbsa@gmail. 623526 Aishwarya Mrs. Poornima Ramanathapuram, Tamil Nadu Sea2Farm, cultivation of algae and products. valuable biomass into converting the Expert in algae cultivation of Expert in years of experienc 0 years of Has many experienc e, Has many



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#### DEPARTMENT OF BIOTECHNOLOGY

#### CIRCULAR

#### KAMARAJ / BT / 2024-25 / VAP-II BT

Date: 26.12.2045

The Department of Biotechnology is going to organize an Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" for II year B.Tech Biotechnology students (2023-27 Batch). The 5 days course is scheduled from 6<sup>th</sup> to 10<sup>th</sup> January 2025. The programme schedule for the VAP is given below:

#### PROGRAM SCHEDULE

DATE	9.10 am to 10.00 am	10.00 am to 10.50 am	11.10am to 12.50pm	1.30 pm to 3.00 pm	3.15 pm to 4.25 pm	
06/01/2025	Inaugural Session	Introduction to Algae, Types of Algae	Seaweed Introduction	Cultivation strategies		
07/01/2025	Natural Bio polymers and their applications		extraction from and Processing	Hands-on Session on Bio polymer Extraction		
08/01/2025		dition and Cor Seaweeds			s-on session	
09/01/2025	Industria	ial visit to Fisheries Department at Ramanathapuram an Seaweeds Industry			uram and	
10/01/2025	Proje	Student ect Expo and Pr	esentation	Validation through test	Valedictory Session	



HoD/BT 20124

PRINCIPAL

Copy to:

B.Tech.Biotechnology- II year B.Tech Class (2023-27 Batch) BT Faculty members Office Superintendent To file



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#### DEPARTMENT OF BIOTECHNOLOGY

# Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" 6<sup>th</sup> to 10<sup>th</sup> January 2025

#### **PROGRAM SCHEDULE**

DATE	9.10 am to 10.00 am	10.00 am to 10.50 am	11.10am to 12.50pm	1.30 pm to 3.00 pm	3.15 pm to 4.25 pm	
06/01/2025	Inaugural Session	Introduction to Algae, Types of Algae	Seaweed Introduction	Cultivation strategies		
07/01/2025	Natural Bio polymers and their applications		extraction from and Processing	n Hands-on Session of Bio polymer Extraction		
08/01/2025	Value ac	ddition and Commerce from Seaweeds Hands-on sessi			s-on session	
09/01/2025	Industria		ries Department at Seaweeds Industry		uram and	
10/01/2025	Proje	Student ct Expo and Pre	esentation	Validation through test	Valedictory Session	

PROGRAMME COORDINATORS

P. 1. J. J. LIVE Hod/BT

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Course Code	Course Name	L	Т	Р	С
VAP	ALGAL TECHNOLOGY AND APPLICATIONS				2

#### 1. Preamble

This course enables the students to

- Know about different types of algae and their diversification.
- Know about cultivation of micro and macro algae.
- Learn the application of algae in various biotechnological perspectives

#### 2. Course Outcomes

After successful completion of the course,

CO.No.	Course Outcome	Knowledge Level
CO1	Explain the basics of algae, their importance, classification and diversity.	К2
CO2	Describe the algal characteristic features and their isolation.	K2
CO3	Summarize the micro algal cultivation methods and biomass production.	К2
CO4	Identify the macro algal distribution and biomass collections.	К3
CO5	Apply the algal systems in biotechnological product development.	К3

#### 3. Course Syllabus

#### UNIT I INTRODUCTION TO ALGAE

Algal diversity, seaweed rearing techniques, raft technology, reared seaweed, seaweed morphology and identification, seaweed seed preperation and development methods.

#### UNIT II CULTIVATION OF ALGAE

Brown and red algae, hydrocolloids from seaweed, alginate extraction from brown algae, application of alginates, agar extraction from red algae and its application, down stream methods in hydrocolloid extraction. Hands-on session: Extraction of alginates from brown algae, Extraction of agar from red algae.

#### UNIT IIIVALUE ADDITION USING ALGAE06

Need of value addition, value addition of seaweeds, demand based approach on value addition, certification associated with value addition. Hands-on session: Value addition of seaweeds and extracted hydrocolloids.

#### UNIT IV COMMERCIALIZATION OF ALGAL PRODUCTS 06

Certifications and quality management. Commercialization of value added products. Promotion and marketing strategies. Industrial visit to Fisheries Department at Ramanathapuram and AK Seaweeds Industry.

#### UNIT V INDUSTRIAL SCALE UP

Government subsidies on seaweed farming and value addition, industrial scale up SOPs, seaweed park in Ramanathapuram. Hands-on session: Commercialization of value added products.

#### **TEXT BOOKS:**

- 1. Konur Ozcan, *Handbook of Algal Science, Technology and Medicine,* Academic Press, 2020.
- 2. Muthuarumugam Nagaraj, Shanmugam Kathiresan, S., *Applied Algal Biotechnology*, Nova Science Publishers, 2021.
- 3. Chojnacka Katarzyna, et al., *Algae Biomass: Characteristics and Applications: Towards algae-based products*, Vol. 8, Springer, 2018.

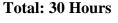
#### **REFERENCES:**

- 1. Becker, E. Wolfgang, *Microalgae: Biotechnology and Microbiology*, Vol. 10, Cambridge University Press, 1994.
- 2. Jayabalan Sangeetha, Devarajan Thangadurai, Sanyasi Elumalai and Shivasarana Chandrbanda Thimmappa, *Phycobiotechnology Biodiversity and Biotechnology of Algae and Algal Products for Food, Feed and Fuel*, CRC Press, 2021.
- 3. Trivedi, P.C., Algal Biotechnology, Pointer publishers, Jaipur, India, 2001

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

HoD/BT Dr R.Shyam Kumar



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#### 06



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#### **Department of Biotechnology**

**Seventh BoS Meeting Minutes** 

Date

: 30-09-2023

Time

Venue

: 10.00 AM : CSE Conference Hall - I

Link (hybrid mode) : <u>https://teams.microsoft.com/l/meetup-</u>

join/19%3a868e3ebf1da84821b67629edf5c504c6%40thread.tacv2/1695969183207?context=%7b%22Tid%

22%3a%222666d919-f1fc-4027-b9c5-212d4e95e68a%22%2c%22Oid%22%3a%2253e97dde-b467-45ac-

80a2-df98f8017534%22%7d

The following members were present:

S.No.	Name of the Expert	Designation	Capacity	
1	Dr. S. Venkatesan	Professor & Head, Department of Petrochemical Technology, Bharathidasan Institute Of Technology (BIT) Campus, Tiruchirappalli- 620 024	Anna University Nominee	
2	Dr. P. Suresh Kumar	Suresh Kumar Professor & Head, Department Of Biotechnology, University College Of Engineering, Bharathidasan Institute Of Technology Campus, Tiruchirappalli		
3	Dr. R. Balakrishnaraja Associate Professor and Head, Department Of Biotechnology, Bannari Amman Institute of Technology, Sathyamangalam		Academic Council Nominee	
4	Mr. S. Seshan	Management Representative, The Peninsular Exports Company, Virudhunagar	Industrial Expert	

5	Dr. Ilanila IP	Assistant Professor National Institute of	Alumni
		Technology Calicut, NIT Campus -	
		Calicut	

Internal Faculty Members of BoS				
S.No.	Name of the Faculty	Designation	Signature	
1	Dr. R. Shyam Kumar	Professor and Head	P. Shufferdan.e	
2	Dr. R. Baskaran	Associate Professor	Lo hundering	
3	Dr. K. Geetha	Associate Professor	12 gutto 3 tust	
4	Dr. S. Karthikumar	Associate Professor		
5	Dr. A. Ronaldo Anuf	Assistant Professor	1200310	
6	Dr. D. Pradiba	Assistant Professor	LP 13/2/23	
7.	Er. R. Amutha Lakshmi	Assistant Professor	All 3/10/23	
8	Er. K. Chitradevi	Assistant Professor	n. Clitudini ostor	
9	Er. Karl Joseph Samuel	Assistant Professor	J.B.	
10.	Er. A.Ganga	Assistant Professor	aug	

## 007.01.00 : Welcome address by HoD

- ➢ Welcome address
- Dissemination of Vision and Mission statements of the Institution and the Department.
- > Dissemination of PEO & PSO statements of the Program.

# 007.02.00 : Approval of 6<sup>th</sup> BoS Meeting Minutes & Action taken

Item No.	Suggestions of BoS Members in 6 <sup>th</sup> BoS Meeting	Action Taken
006.04.01	Dr. P. Suresh Kumar, Academic Council	The suggestions provided by the
	Nominee suggested to include recent book	experts were taken and changes
	editions in text and reference books.	were made in the appropriate
	Dr. S. Venkatesan, Anna University	syllabus
	Nominee suggested latest version of	

	Separation process principles by Seader	
•	and Henly for this course	
006.04.01	Dr. P. Suresh Kumar, Academic Council	Appropriate text book reference
	Nominee suggested to include updated text,	and e-book links were
	reference books and e – book links in the	introduced
	syllabus	
006.04.01	Dr. Balakrishnaraja, Academic Council	The changes were done in the
	Nominee suggested to include the topics	modified syllabus
	"Media design and optimization simulation	
	using MATLAB" in the syllabus. He also	
	insisted to reframe the title of second unit	
006.04.01	Members enquired the availability of	Visit to near by Animal handling
	animal handling facility in the department	facility was added as an activity
		in the Laboratory
006.04.01	Dr. Balakrishnaraja, Academic Council,	The MATLAB based exercises
	Simulation studies using MATLAB in the	are included in the Theory
	course.	course
006.04.01	Dr. S. Venkatesan, Anna University	The Paper was introduced
	Nominee asked to remove Unit Operations	
	paper and instead include Intellectual	
	Property Rights course.	
006.04.01	Mr. S. Seshan, Industrial Expert suggested	The topic was introduced in the
	to include International Regulatory affairs,	syllabus
	regulations such as USFDA in the Food	
	Safety Laws and Regulation syllabus.	
006.05.03	Mr. S. Seshan enquired about the	Efforts were taken to provide
	Management related value added courses	such courses for final year
	(GLP, GMP) offered by the department	students
	and he also suggested to include the such	
	courses as it would improve the job	
	opportunities	Server Strategy and Strategy and Strategy

• All the BoS members approved the minutes of the 6<sup>th</sup> BoS meeting

# 007.03.00 : Discussion and approval of

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# 007.03.01 : Proposed Curriculum and Syllabi for VII and VIII Semester

Name of the Course	Suggestions from BoS members
Downstream Processing	<ul> <li>Dr. R. Balakrishnaraja, suggested that Case study- based assignments can be assigned as activity. The course in charge justified that Out of the three assignments, one assignment is given as case study.</li> <li>Dr. Ilanila IP enquired whether in Unit-V there is</li> </ul>
	<ul> <li>Scope for including Downstream purification of Pharmaceutical product in syllabus</li> <li>The HoD informed that the same has been</li> </ul>
	<ul> <li>Internet internet internet internet internet included in biopharmaceutical syllabus</li> <li>Dr. R. Balakrishnaraja, suggested to include text book by Seader and tatum</li> </ul>
Downstream Processing Laboratory	<ul> <li>References needs to be updated with reprints</li> </ul>
Computational Biology Laboratory	<ul> <li>Dr.R.Balakrishnaraja, Appreciated for including R         <ul> <li>Programming. He also insisted to teach Theory content of R programming as one credit course. Alumni help may be sought in this regard.</li> </ul> </li> </ul>
Mini Project Work	Dr.R.Balakrishnaraja, – enquired about the process of problem identification for mini project work. He suggested to identify problems from nearby industries. HOD explained that the same procedure is followed by the department. Three- member committee is constituted to monitor the
5. 	<ul> <li>progress of the same.</li> <li>Dr.Ilanila IP enquired the duration of the project in the syllabus.</li> </ul>
	Dr.R.Balakrishnaraja, suggested that the students have to work after regular working hours to arrive at better results.
	Dr.Suresh Kumar enquired about the total credits for the R2021.

#### **VII Semester**

#### **VIII Semester**

Name of the Course Suggestions from BoS members		
Project Work	<ul> <li>Dr.Balakrishnaraja, enuired about the total number of credits and the total hours allocated for the project work</li> <li>Dr.Suresh Kumar, enquired whether the project would be Inhouse projects or industry projects. He also enquired about the Review system.</li> <li>The HoD and BoS Coordinator informed that the preference for project will be based on student</li> </ul>	

### 007.03.02 : Management Courses - TQM & PoM (MECH & MTRE)

#### 007.03.03 : List of Open Elective 1,2,3 & 4 courses offered

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Name of the Course	Offered to	Suggestions from BoS members
BASICS OF BIOINFORMATICS	CSE, ADS, ECE, IT	Dr.Ilanila IP, suggested that Unit I and II can be reframed to add more details related to central dogma concepts and other basic concepts related to biotechnology.
INTRODUCTION TO FOOD MANUFACTURING	CSE, ADS, ECE, IT	<ul> <li>Dr.Balakrishnaraja and Dr.Illanila IP, suggested that the syllabus is too complex. It will be difficult for the students from other branches.</li> <li>Question paper has to be framed carefully taking into consideration the course is studied by students from other branches.</li> </ul>
BASICS OF NANOBIOTECHNOLOGY	All Branches	<ul> <li>The Board of Studies experts proposed that the syllabus, being an open elective, may be reduced to accommodate students from various branches.</li> <li>Dr. Balakrishnaraja Suggested that Unit - 5 title can be reframed as Nanobiotechnology in Medicine.</li> </ul>
BIOLOGY FOR ENGINEERS	All Branches	All the members appreciated the syllabus and approved it.
TESTING OF BIOLOGICAL MATERIALS	All Branches	<ul> <li>Dr.Ilanila, enquired whether Unit II will be taught by person from Mechanical Engineering background.</li> <li>HoD informed that for such topics guest lectures may be arranged.</li> </ul>
PRINCIPLES OF FOOD PROCESSING	All Branches	All the members appreciated the syllabus and approved it

007.03.04 : List of NPTEL Courses (equivalence) offered for the students those who are opting for Honours / Minor degree / alternative to professional elective courses

NPTEL COURSE	Equivalent Professional elective course

Novel Technologies for Food Processing and Shelf Life Extension	Principles of Food Preservation
Post Harvest Operations and Processing of Fruits, Vegetables, Spices and Plantation Crop Products	Post Harvest Technology
Environmental Biotechnology	Environmental Biotechnology

> The members accepted the courses requested for equivalence.

#### 007.03.05 : Human Values and Ethics Courses

- The members appreciated the contents in the syllabus. They commented that the syllabus was in line with the initiative from AICTE.
- Dr.Bala also enquired about the number of faculty members who have completed the UHV modules.
- HoD informed that 50% of the faculty members in the department have completed the course. The members appreciated the efforts.

#### 007.04.00 : ITEMS FOR RATIFICATION

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## 007.04.01 : Changes or Corrections in the existing Curriculum of R2020 and R2021

#### NIL

# 007.04.02 : NPTEL Examination results (students performance) and action taken for the students who did not receive the certificates

• IV Year B. Tech Biotechnology (2020-2024 Batch, R2020) has a mandatory 2 Online Courses for 6 Credits.

• 25 students of the total 48 students (52.03%) have completed the required two courses for six credits.

Subject Code	Subject Name	Month & Year	No of Students Enrolled	No. of students Passed	Pass %
noc22-ag13	Post Harvest Operations and Processing of Fruits, Vegetables, Spices and Plantation Crop Products	Oct 2022	15	11	73.33
noc22-ag14	Soil Fertility And Fertilizers	Oct 2022	5	5	100
noc22-bt57	Environmental Biotechnology	Oct 2022	28	28	100

noc23-ag02	Novel Technologies For Food Processing And Shelf Life Extension	Apr 2023	38	20	52.63
noc23-ce12	Water and waste water treatment	Apr 2023	7	6	85.71
noc23-ce10	Applied Environmental Microbiology	Apr 2023	3	2	66.67

• The following students have achieved Topper in their respective subjects

S. No	Roll Number	Student Name	Subject Code	Subject Name	Month & Year	Topper %
1.	20UBT023	VARSHINIRAJI.P	noc22-bt57	Environmental Biotechnology	Oct 2022	1
2.	20UBT041	MINUSHA.S	lnoc22-ht57	Environmental Biotechnology	Oct 2022	5
3.	20UBT027	SUBHIKSHA.S	noc/s-cell	Applied Environmental Microbiology	Apr 2023	5

• 22 students of the total 48 students (45.83%) have completed one course and earned 3 credits and 1 student (2.08%) have not completed any courses.

• The students who are short of required credits have been recommended to register from the following courses this semester.  $\cdot \cdot \cdot$ 

S. No	Course ID	Name of the Course
1.	noc23_ag13	Soil Fertility And Fertilizers
2.	noc23-ag11	Advanced Aquaculture Technology
3.	noc23-ag18	Dairy And Food Process And Products Technology
4.	noc23-bt37	Drug Delivery: Principles And Engineering

• The Controller of Examination will conduct the examination for students who fail this semester.

#### 007.04.03 : Curriculum feedback and action taken if any

> The feedback received from Students, Faculty and Alumni were shared with the BOS members. The action taken were appreciated by the members.

#### 007.04.04 : Value Added Courses offered – ratification if any

HOD presented the details about the Industry Value added course offered for III Year students on the topic Comprehensive trail in revolutionary drug

- t design: Pre-clinical research methodology (30 hours) during the current semester and requested for ratification.
- Dr. Bala enquired about the total credits offered for the program.
- ➢ HoD Informed that the program was offered 2 credits.

# 007.05.00: Information about the (Points Discussed in the following)

Item No.	Description	Suggestions / Comments from the BoS		
007.05.01	Number of students doing Honours / Honours with Specialization / Minors and its respective courses	<ul> <li>Dr.Balakrishnaraja enquired about the poor turnouts in enrolment for Minor degree courses.</li> <li>HoD informed that most of the students are interested in core placements and research avenues.</li> </ul>		
	Student Internship Completion details	The HOD shared the statistical data of the student internship/ Inplant training details for R2020 & R2021		
007.05.02	<b>f</b>	<ul> <li>&gt; 100 % of the students of R2020 have completed the student internship/ Inplant training</li> <li>&gt; 98% of the students from R2021 completed the Internship of 15 days duration during the Academic Year</li> <li>* 2022-2023.</li> </ul>		
007.05.03	Pass Percentage of students	<ul> <li>The HOD Presented the Pass percentage year wise and course wise.</li> <li>The BOS members appreciated the results of the students.</li> </ul>		
007.05.04	Value Added Courses offered/ Planned for the academic year : 2023 – 2024	<ul> <li>The HOD Presented the Value added course planned for the academic year : 2023-2024</li> <li>The following courses were planned for Current Second year Students</li> <li>Value Added Course on Biofertilizer and Biopesticide Production</li> <li>Value Added Course on Algae for Health and Wealth</li> <li>Value Added Course on Food Safety Management System</li> </ul>		

		Members suggested that course related to Food Value addition and Quality policy can be conducted to the students at Second year.
	r	The Value added courses Coordinators shared that for final years "One-week hands on training related to laboratory techniques" (Finishing School Concept) will be conducted.
		The experts suggested that, if feasible certification course related to ISO Internal Audit (Food safety management) can be handled for Final year students.
007.05.05	NBA eSAR / status /compliance preparation and its information	<ul> <li>The HOD shared the details regarding the Visit by NBA expert committee.</li> <li>The strength and Weakness pointed out by the NBA committee was shared with the BoS Members</li> </ul>
		The HoD shared the statistical data of the student internship/ Inplant training details for
007.05.06	Student Internship details (between 6 <sup>th</sup> and 7 <sup>th</sup> meeting)	<ul> <li>R2020 &amp; R2021.</li> <li>100 % of the students of R2020 have completed the student internship/ Inplant training</li> <li>98% of the students from R2021 completed the Internship of 15 days duration during the Academic Year 2022-2023.</li> </ul>

#### 007.06.00 : Any other Item

Request for ratification of Mission statements as per NBA Criterion I. The members suggested to reframe the mission statement in to two or three individual statements in alignment with the existing mission statements.

#### 007.07.00 : Vote of Thanks

The meeting ended with the Vote of Thanks by Dr. K. Geetha, Associate Professor, Department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar.

**BoS** Coordinator

(Dr.A.Ronaldo Anuf)

P. Mot Bos Chairman

(Dr.R.Shyam Kumr)

HoD /BT HOD DEPT. OF BIOTECHNOLOGY Kamaraj College of Engineering & Technology



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#### MINUTES OF THE MEETING TO APPROVE AND RECOMMEND

#### THE VALUE ADDED PROGRAM EXAMINATION FOR CREDIT

Date : 27/01/2025

Time : 3.50 PM to 4.15 PM

Venue: Research Laboratory, Dept of Biotechnology

#### **Members Present:**

- 1. Dr.R.Shyam Kumar (Head/BT & Convener)
- 2. Dr D.Pradiba (Assistant Professor / BT & Dept. VAP Coordinator)
- 3. Dr.S.Karthikumar (Associate Professor / BT & II BT VAP Coordinator)

Additional Member: Dr.K.Geetha (Associate Professor / BT & II BT VAP Coordinator)

#### Agenda:

- 1. Welcome address Dr.R.Shyam Kumar, Head and convener.
- Dissemination of the report of Industry Certified Value-Added Programme on "ALGAL TECHNOLOGY AND APPLICATIONS" –Dr S.Karthikumar.
- Dissemination of the Value Added Programme Guidelines in R2021 Dr.S.Karthikumar, CP/II BT & II BT VAP Coordinator.
- Dissemination of the report on mode of conduct of examination and evaluation system – Dr.K.Geetha, II BT VAP Coordinators.
- Approval of the program conduction and examination evaluation system to issue the credits as per regulation R2021- Dr D.Pradiba, Dept. VAP Coordinator.
- 6. Any other items with the approval of convener



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Item No.	Agenda	Discussion and Resolution
1	Welcome address	Dr.R.Shyam Kumar, Head and convener of the meeting welcomed the gathering and gave a brief introduction about the purpose and agenda of the meeting
2	Dissemination of the report of value added Program	Dr.S.Karthikumar, Chairperson of II BT and one of the VAP coordinators explained the objective, need, target participant, duration and expected outcome of the program organized "Industry certified value added programme on ALGAL TECHNOLOGY AND APPLICATIONS" during 6 <sup>th</sup> to 10 <sup>th</sup> January 2025 (5 days). The program was conducted for 2 <sup>nd</sup> year B.Tech. Biotechnology students (2023-27 Batch) as per regulation R2021. Biotechnology related industry personals from Sea2Farm, Ramanadapuram, Tamil Nadu, provided technical training and Hands-on training to the students during the programme. Detailed event report is attached.
3	Dissemination of the Value -added	Dr.S.Karthikumar, Chairperson of II BT and one of the VAP coordinators disseminated the points discussed regarding the

	Programme	change in the value added programme during the 7th BOS meeting.
	Guidelines in	The proposed syllabus for value added courses "ALGAI
	R2021	TECHNOLOGY AND APPLICATIONS" was accepted by Anna
		University Nominee.
		Dr K.Geetha, Associate Professor, BT and one of the VA
		coordinators, explained the mode of conduct of examination. At th
	Dissemination of	end of the program students were asked to appear for an Externation
	the report on	exam in online platform covering 25 MCQs from Alg
	mode of conduct	Technology. The exam was conducted in physical mode using M
4	of examination	Office Forms platform in proctored mode. The marks scored b
	and evaluation	each student was presented to the committee members for th
	system	approval. Out of 53 students, 52 students attended the exam an
		cleared. Hence, 52 students will be awarded with 2 credits for th
		VAP.
	Approval of the	the second s
	program conduct	The three member committee (Dr.R.Shyam Kumar, Dr.D.Pradi
	and examination	and Dr.S.Karthikumar) scrutinized and approved the value
	evaluation	added program exam results and recommend 2 credits to
5	system to issue	offered to 52 students. The committee members verified t
	the credit as per	results and forwarded to Controller of Examination through Ch
	the regulation	Coordinator (Academics-Core) to consider for Credits.
	R2021	
6	Any other items	No members raised any further clarification and the reports we

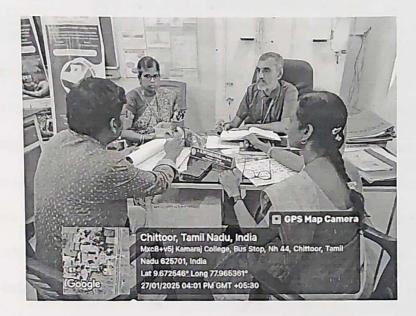
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#### forwarded for further process.

approval of

convener



Dr.R.Shyam Kumar HoD/BT and Convener

125 Dr.S.Karthikumar Associate Professor/BT, II BT VAP Coordinator

Dr.D.Pradiba Assistant Professor/BT, Department Value Added Course Coordinator

GUITER



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

#### DEPARTMENT OF BIOTECHNOLOGY

#### Industry Certified Value Added Programme On ALGAL TECHNOLOGY AND APPLICATIONS 6<sup>th</sup> to 10<sup>th</sup> January 2025

#### PHOTOS

Day 1



Inauguration session



Sessions on the basic Introduction Theory behind Algae and its classification by Mr. M.Selva Kumar



Seaweed samples



Laboratory session by Mr M.Selva Kumar

#### Day 2



session on Applications of seaweed by Mr. R.P.Rajadurai Jesudoss





Hands-on session on preparation of agar agar and alginate

Day 3



Industrial visit to **CSIR-CSMCRI Marine Algal Research Station**, Ramnathapuram



Automated production unit under the Fishery Department of Rameswaram





Visit to seaweed collection site



Hands-on training on seaweed cultivation - Raft method



Hands-on training of seaweed cultivation - Raft method



Theory session on Algal product development by Mr R.P.Rajadurai Jesudoss



Processing of Algae

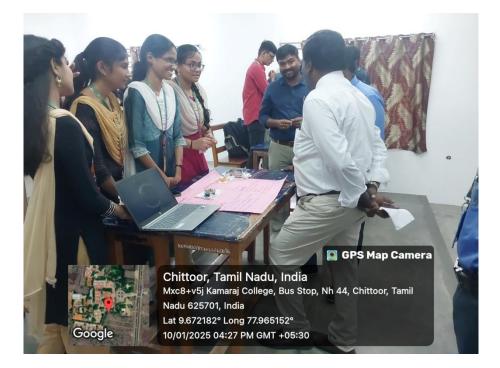


Preparation of Algal based Products

Day 5



Presentation and demonstration of Algal products



#### Presentation and demonstration of Algal products



Valedictory Function



Felicitation by Thiru CA V.K.Dharmaraj, Secretary during Valedictory Function

Programme Coordinators

Dr K.Geetha

Dr S.Karthikumar

Dr R.Shyam Kumar

HoD/BT

Dr R.Shyam Kumar



#### DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Programme On "ALGAL TECHNOLOGY AND APPLICATIONS" 6<sup>th</sup> to 10<sup>th</sup> January 2025 ONLINE PROCTORED EXTERNAL EXAMINATION – 25/01/2025 <u>PHOTOS</u>

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

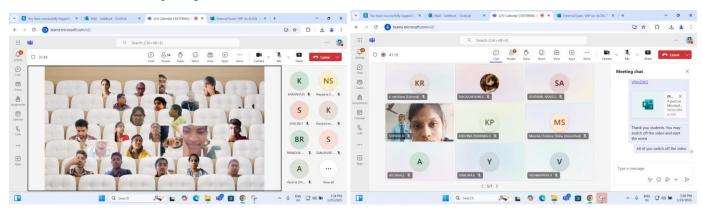


Photo 2, 3 & 4: Students attending Online proctored mode external exam for Value Added Course



**Programme Coordinators** 

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

Dr R.Shyam Kumar





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This is to certify that Mr./Ms. <u>LANTTH RATE B</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214025</u>, Roll No. <u>230Brool</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>83</u> % in the assessment exam.



Value added sea biologicals

Principal





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This is to certify that Mr./<del>Ms</del>. <u>HARTPRASATH - S</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214015</u>, Roll No. <u>230B7092</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>31</u>% in the assessment exam.



Principal

Sea2Fa

Value added sea biologicals





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This is to certify that Mr./Ms. HAMBHAD VANT.C 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920193214012</u>, Roll No. <u>23080003</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>92</u>% in the assessment exam.

Sea2Farm





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This is to certify that Mr./Ms. <u>VTTAYA RAGAVAN G</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214047</u>, Roll No. <u>23087004</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>87</u>% in the assessment exam.









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This is to certify that Mr./Ms. <u>PORSELVAN S.G</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214033</u>, Roll No. <u>23087006</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>82</u>% in the assessment exam.







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This is to certify that Mr:/Ms. <u>ELAKTYA - S-R</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214010</u>, Roll No. <u>230BT007</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>90</u>% in the assessment exam.





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This is to certify that Mr./Ms. YAMUNA · K 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>9204,23214051</u>, Roll No. <u>230BT008</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>90</u> % in the assessment exam.





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This is to certify that Mr./Ms. <u>APARNA-S</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214003</u>, Roll No. <u>23087009</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>98</u> % in the assessment exam.



HoD/BT





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This is to certify that Mr./Ms. <u>VIVEHA BALA-3</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>420423214050</u>, Roll No. <u>23084010</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>97</u>% in the assessment exam.









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This is to certify that Mr./<del>Ms</del>. <u>TEVA SUGESH-A</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214020</u>, Roll No. <u>23087011</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>97</u>% in the assessment exam.



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Sea2Farm Value added sea biologicals

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This is to certify that Mr./Ms. <u>PRTYADHARSHINT · M</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214034</u>, Roll No. <u>230B7012</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>87</u>% in the assessment exam.





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 SNETHA-S

 2nd
 Year B.Tech.Biotechnology, Reg.No. <u>920423214044</u>, Roll No. <u>23087013</u>

 has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>94</u> % in the assessment exam.









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This is to certify that <u>Mr</u>./Ms.\_\_\_\_\_<u>ROBHTNT</u>. <u>8</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No.\_<u>qao423214039</u>, Roll No.<u>\_2308To14</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>gq</u> % in the assessment exam.







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This is to certify that Mr./Ms. <u>SENTAMTL ARAST C</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214041</u>, Roll No. <u>230BT015</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>84</u> % in the assessment exam.









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This is to certify that Mr./Ms. <u>ATCHTAH S</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214005</u>, Roll No. <u>230 BT016</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>92</u> % in the assessment exam.



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This is to certify that Mr./Ms. <u>YATHTNT-G</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423 214053</u>, Roll No. <u>23087017</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>96</u>% in the assessment exam.







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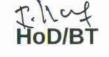
#### CERTIFICATE



Principal

This is to certify that Mr./Ms. <u>VIMALA · T</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214048</u>, Roll No. <u>23087018</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>92</u>% in the assessment exam.







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Principal

This is to certify that Mr./Ms. <u>VEERALAK&HMT · V</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214046</u>, Roll No. <u>23087019</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>86</u>% in the assessment exam.







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Principal

This is to certify that Mr./Ms. 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214018</u>, Roll No. <u>23087020</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>85</u>% in the assessment exam.





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Principal

This is to certify that Mr./Ms. <u>NAVABNA · S</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214032</u>, Roll No. <u>23087021</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>81</u> % in the assessment exam.







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Principal

This is to certify that Mr./<del>Ms</del>. <u>HART BALAMURUGAN · P</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214013</u>, Roll No. <u>23087022</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>82</u>% in the assessment exam.







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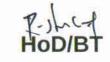
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#### CERTIFICATE



This is to certify that Mr./Ms.KANTYABREE M2nd Year B.Tech.Biotechnology, Reg.No.q20423214023, Roll No.As attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY ANDAPPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during6 - 10, January 2025 and secured94% in the assessment exam.









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This is to certify that Mr./Ms. <u>ARUN ADHTTHYAN S</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214004</u>, Roll No. <u>23087024</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>85</u>% in the assessment exam.



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Principal



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Principal

This is to certify that Mr./Ms. <u>Puvane Teamane T</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214035</u>, Roll No. <u>23087025</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>80</u>% in the assessment exam.





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This is to certify that <u>Mr</u>./Ms. <u>MARTAHA CHRISTINE STISHA+T</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214027</u>, Roll No. <u>230BT026</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>93</u> % in the assessment exam.



Coordinate



2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>q20423214021</u>, Roll No. <u>23087029</u>
has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during
6 - 10, January 2025 and secured <u>81</u> % in the assessment exam.

Coordinato





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This is to certify that Mr./Ms. <u>SHALTNT-T</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>q20423214042</u>, Roll No. <u>230BT028</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>83</u>% in the assessment exam.







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Principal

This is to certify that Mr./Ms. <u>RATA PRTYADHARSHING R</u>. 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214036</u>, Roll No. <u>23087029</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>90</u>% in the assessment exam.



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Sea2Farr

Value added sea biologicals



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#### CERTIFICATE

This is to certify that Mr./Ms. <u>Ak8HAVA · R · B</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>92042321400</u>, Roll No. <u>23087031</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>86</u>% in the assessment exam.



Coordinator(s

HoD/BT

Sea2Far

Value added sea biologicals

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Sea2Farm Value added sea biologicals

This is to certify that Mr./Ms. <u>RATHIT-K.P</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>q20423214039</u>, Roll No. <u>23087032</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>87</u> % in the assessment exam.



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Principal

This is to certify that Mr./<del>Ms</del>. <u>GOMTHAM RAT • R</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214011</u>, Roll No. <u>230B7033</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>93</u> % in the assessment exam.





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CERTIFICATE



This is to certify that Mr./Ms. <u>SUPRTYA-D</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920123214043</u>, Roll No. <u>230B7034</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>87</u> % in the assessment exam.



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This is to certify that Mr./Ms. <u>NAGALAKSHMT . S</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214030</u>, Roll No. <u>230BT035</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>60</u>% in the assessment exam.



Coordinator





2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>9804 83814006</u>, Roll No. <u>2306T0 34</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>81</u>% in the assessment exam.



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# CERTIFICATE



This is to certify that Mr./Ms. <u>YAZHINI D</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>9204,33814052</u>, Roll No. <u>33067038</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>86</u>% in the assessment exam.







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Principal

This is to certify that Mr./Ms. <u>SYED SIRBJUTHEEN M</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920493244045</u>, Roll No. <u>23067039</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>86</u>% in the assessment exam.





(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).

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## CERTIFICATE



Principal

This is to certify that Mr./Ms. <u>DHTYAKARAN · K</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214008</u>, Roll No. <u>28067040</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>80</u>% in the assessment exam.







(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).

# CERTIFICATE



Principal

This is to certify that Mr./Ms. <u>SANJAY VEERA · S</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>A201, 2321,4040</u>, Roll No. <u>33087040</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>81</u>% in the assessment exam.





(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).

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## CERTIFICATE



Principal

This is to certify that Mr./<del>Ms</del>. <u>NAVEEN KUMAR · N</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920433414031</u>, Roll No. <u>23061042</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>80</u>% in the assessment exam.



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Principal

This is to certify that Mr./<del>Ms</del>. <u>ANANTHA RAJ.J</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>980483814008</u>, Roll No. <u>23067043</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>80</u> % in the assessment exam.





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This is to certify that Mr./Ms. <u>HART KRISHNAN K</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214044</u>, Roll No. <u>230BTD444</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>85</u>% in the assessment exam.







(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).

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## CERTIFICATE



This is to certify that Mr./Ms. <u>kershna Przyanka G</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>980483814084</u>, Roll No. <u>83067045</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>88</u>% in the assessment exam.















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

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This is to certify that Mr./Ms.\_\_\_\_\_\_DMARSHINT . k 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No.\_\_<u>980k23214009</u>, Roll No.\_<u>g3UETOk7</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured \_\_\_\_\_\_% in the assessment exam.



Thur HoD/BT





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## CERTIFICATE



Principal

This is to certify that <u>Mr</u>./Ms.\_\_\_\_\_\_\_ 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No.\_\_<u>920483214037</u>, Roll No.\_<u>23067048</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured \_\_\_\_\_\_% in the assessment exam.

Sea2Farm



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# CERTIFICATE



This is to certify that Mr./Ms. <u>JEYA PRAKAGH</u> .J 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423814014</u>, Roll No. <u>330BT049</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>82</u> % in the assessment exam.









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This is to certify that Mr./Ms. <u>JANANT. 3</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214012</u>, Roll No. <u>23067050</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>82</u>% in the assessment exam.



Pilluf HoD/B1



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Principal

This is to certify that Mr./Ms. <u>MOHANRAS &</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>920423214023</u>, Roll No. <u>33UBTO 51</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>12</u> % in the assessment exam.





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## CERTIFICATE



This is to certify that Mr./Ms. <u>VITSHM/A PRIVA V</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>9204 8 3214049</u>, Roll No. <u>23067052</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>82</u>% in the assessment exam.



Principal



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## CERTIFICATE



Principal

This is to certify that Mr./Ms. <u>KARISHNA M</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No. <u>PROFESALINO 22</u>, Roll No. <u>20//BTOSS</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>17</u>% in the assessment exam.





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Principal

This is to certify that Mr./<del>Ms.</del>\_\_\_\_\_<u>MANESH-S</u> 2<sup>nd</sup> Year B.Tech.Biotechnology, Reg.No.<u>920423214026</u>, Roll No.<u>23087054</u> has attended Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS" in association with Sea2Farm, Ramanathapuram, Tamil Nadu during 6 - 10, January 2025 and secured <u>81</u>% in the assessment exam.





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### DEPARTMENT OF BIOTECHNOLOGY

### CIRCULAR

KAMARAJ / BT / 2024-25 / VAP-II BT

Date: 20.01.2025

Dear Students,

You are requested to join the online meeting link to attend Industry Certified VAP- ALGAL TECHNOLOGY AND APPLICATIONS: EXTERNAL ASSESSMENT TEST 2024-25 on 25/01/2025 at 3.10 pm.

All students are instructed to bring Laptop to take the exam. Join the meeting link 10 min before the exam timing. Only those who 80% attendance 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.

https://teams.microsoft.com/l/meetup-Link: join/19%3ameeting\_NTE2Yzc1MDEtMGJIMC00MTI1LWJIYTQtZGFkMjE3MGI4 NGI2%40thread.v2/0?context=%7b%22Tid%22%3a%222666d919-f1fc-4027-b9c5-212d4e95e68a%22%2c%22Oid%22%3a%224948241d-c837-4241-ab0bde08e44460f9%22%7d

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ROGRAMME COORDINATORS

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

Dr R.Shyam Kumar HOD DEPT. OF BIOTECHNOLOGY araj College of Engineering & Technology VIRUDHUNAGAR. 0 C

Copy to:

B.Tech.Biotechnology II year B.Tech Class (2028-27 Batch) BT Faculty members Office Superintendent To file



### External Exam link for VAP on ALGAL TECHNOLOGY AND APPLICATIONS- 2024-25 Even

From Geetha.K <geethabt@kamarajengg.edu.in>

Date Mon 1/20/2025 1:31 PM

To 23UBT <23ubt@kamarajengg.edu.in>

Cc HODBT <hodbt@kamarajengg.edu.in>; Karthikumar.S <karthikumarbt@kamarajengg.edu.in>; Chief Coordinator Academic core <cacore@kamarajengg.edu.in>

1 attachment (218 KB)

VAP External exam circular 2024-25.pdf;

Dear Students,

Dear Students,

You are requested to join the online meeting link to attend Industry Certified VAP- ALGAL TECHNOLOGY

### AND APPLICATIONS: EXTERNAL ASSESSMENT TEST 2024-25 on 25/01/2025 at 3.00 pm.

All students are instructed to bring Laptop to take the exam. Join the meeting link 10 min before the exam timing. Only those who 80% attendance 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.

Online Meeting Link: <u>https://teams.microsoft.com/l/meetup-</u> join/19%3ameeting\_NTE2Yzc1MDEtMGJIMC00MTI1LWJIYTQtZGFkMjE3MGI4NGI2%40thread.v2/0? <u>context=%7b%22Tid%22%3a%222666d919-f1fc-4027-b9c5-</u> 212d4e95e68a%22%2c%22Oid%22%3a%224948241d-c837-4241-ab0b-de08e44460f9%22%7d

BEST OF LUCK!!!

Regards,

Dr K.Geetha Associate Professor Department of Biotechnology Kamaraj College of Engineering & Technology S.P.G.C. Nagar, K.Vellakulam-625701, Near Virudhunagar, Madurai Dist. Tamilnadu, India Mob: +91 9443116930 Alt Mail: geetgene@gmail.com





(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 "ALGAL TECHNOLOGY AND APPLICATIONS"

### 6<sup>th</sup> to 10<sup>th</sup> January 2025

Questions and key

### Course : Algal technology and application

- 1) SRC stands for
  - (a) Semi refined Carrageenan
  - b) Semi refined Agar
  - c) Sargassum rich consortium
  - d) Semi refined cyanobacteria
- 2) Green algae are abundant in
  - (a) Intertidal zone
  - b) Mesopelagic zone
  - c) Continental shelf
  - d) Continental drift
- 3) Spot the non-native seaweed of India
  - a) Sargassum sp
  - b) Gelidium Sp
  - (c) Kappaphycus Sp
  - d) Turbeneria Sp
- 4) Central nodel institute working on algal research
  - a) CMFRI
  - b) CFTRI
  - C CSMCRI
  - d) CECRI
- 5) Model agar and carrageenan extraction unit at mandapam Tamilnadu was governed under
  - a) State agriculture department
  - (b) State fisheries department
  - c) State coastal department
  - d) State gulf of mannar development department
- 6) Agar Agar was extracted from
  - a) Ulva sp
  - b) Kappaphycus sp
  - (c) Gelidium sp
  - d) Sargassam sp

- 7) Spot the High protein algae
  - A) Sargassam sp
  - B) Gelidium sp
  - C) Kappaphycus sp
  - D) Ulva sp
- 8) Kappaphycus seaweed is also termed us \_\_\_\_\_\_, based on its patent.
  - (a) Pepsi seaweed
    - b) Aquaagri seaweed
    - c) Grand seaweed
    - d) Itc seaweed
- 9) Agar recovery from red algae extract gel is done by
  - a) Alkali precipitation
  - b) Acid precipitation
  - c) Centrifugal force
  - d) Freeze thawing
- 10) E406 was assigned to
  - a) Sodium alginate
  - (b) Agar agar
    - c) Caragennan
  - d) Alginic acid
- 11) If Agar was value added for Islamic population , it should be mandatorily
  - a) Kosher certified
  - b) Fssai certified
  - c) HACCP certified
  - (d) HALAL certified
- 12) Product to be sold among jew people should hold
  - (a) Kosher certificate
  - b) ISO certificate
  - c) Fssai certificate
  - d) Halal certificate
- 13) ISO for food products \_\_\_\_
  - a) ISO 14000
  - (b) ISO 22000
  - c) ISO 12000
  - d) ISO 9001
- 14) Alginates are extracted by
  - a) Freeze drying
  - (b) Acid precipitation
    - c) sedimentation
    - d) Ultrafiltration
- 15) Kappaphycus seaweed seeds are developed using
  - a) Raft method
  - (b) Micropropagation
  - c) PTC
  - d) Cell line culture
- 16) \_\_\_\_\_ is high yielding Kappaphycus culturing methodology followed in Tamilnadu

10. × 1. ·

- a) Tubular method
- b) Deep stone method

- c) Bamboo raft method
- d) Float tube method

17) Alkali used in alginate extraction is

- a) Sodium carbonate
- b) Sodium bicarbonate
- c) Sodium hydroxide
- d) Sodium sulphate

18) Strong Agar is extracted from

- (a) Gelidium Sp
  - b) Turbeneria Sp
  - c) Gracilaria Sp
  - d) Sargassum Sp

19) On raft cultivation distance between two seedling rope should be \_\_\_\_\_

(a) 6 inches

- b) 12 inches
- c) **3inches**
- d) 24 inches

20) Cultivation period of kappaphycus sp on raft will last for \_\_\_\_\_ days

a) 55

- b) 45
- c) 65
- d) 35

Widely seaweeds are rich in \_\_\_\_\_

- a) Vitamins
- b) Proteins
- c) Minerals
- (d) Carbohydrate

22) Agar food grade material should posses the following mandate certificate to be sold in India

- a) ISO
- b) FSSAI
- c) Halal
- d) GMP

23) Seaweeds get attached to the marine base using

- a) Roots
- b) Blades
- c) Gas bladder
- (d) Holdfast

24) Blue green algae come under

- (a) Microalgae
  - b) Macroalgae
  - c) Fungi
  - d) MicroPlant

25) Local name of Turbeneria Sp seaweed

- a) Kattai korai
- b) Malli korai
- c) Pepsi paasi
- (d) Pakoda paasi

00 gramme Coordinators DKK.Geetha Dr S.Karthikumar Dr R.Shyam Kumar

nadè Mr R.P.Rajadurai Jesudoss

HOD/BT Dr R.Shyam Kumar

Sea2Farm Ramanathapuram

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External Exam: VAP on ALGAL TECHNO	DLOGY AND
APPLICATIONS- 2024-25 Even	
6th to 10th January 2025	
<sup>*</sup> Required	
* This form will record your name, please fill your name.	
1. Name *	
2. Roll Number (23UBT0) *	
3. Register Number (9204232140) *	
4. Date of Examination *	

### Multiple Choice Questions. Answer all questions.

Each question carries 2 marks. (2 x 25 = 50 Marks)

- 5. 1. SRC stands for \* (2 Points)
  - a) Semi refined Carrageenan
  - () b) Semi refined Agar
  - C) Sargassum rich consortium
  - ) d) Semi refined cyanobacteria

### 6. 2. Green algae are abundant in \* (2 Points)

- a) Intertidal zone
- b) Mesopelagic zone
- C) Continental shelf
- ) d) Continental drift

7. 3. Spot the non-native seaweed of India \* (2 Points)

- a) Sargassum sp
- 🔘 b) Gelidium Sp
- C) Kappaphycus Sp
- 🔘 d) Turbeneria Sp

8. 4. Central nodel institute working on algal research \* (2 Points)

- ) a) CMFRI
- b) CFTRI
- C) CSMCRI
- 🔵 d) CECRI
- 9. 5. Model agar and carrageenan extraction unit at mandapam Tamilnadu was governed under \* (2 Points)
  - a) State agriculture department
  - b) State fisheries department
  - c) State coastal department
  - d) State gulf of mannar development department

- 10. 6. Agar Agar was extracted from \* (2 Points)
  - 🔵 a) Ulva sp
  - b) Kappaphycus sp
  - C) Gelidium sp
  - O d) Sargassam sp

#### 11. 7. Spot the High protein algae \* (2 Points)

- A) Sargassam sp
- B) Gelidium sp
- C) Kappaphycus sp
- D) Ulva sp

12. 8. Kappaphycus seaweed is also termed us \_\_\_\_\_\_, based on its patent. \* (2 Points)

- a) Pepsi seaweed
- b) Aquaagri seaweed
- C) Grand seaweed
- d) Itc seaweed

### 13. 9. Agar recovery from red algae extract gel is done by \* (2 Points)

- ) a) Alkali precipitation
- () b) Acid precipitation
- C) Centrifugal force
- d) Freeze thawing

### 14. 10. E406 was assigned to \* (2 Points)

- a) Sodium alginate
- b) Agar agar
- 🔘 c) Caragennan
- ) d) Alginic acid

- 15. 11. If Agar was value added for Islamic population , it should be mandatorily \* (2 Points)
  - ) a) Kosher certified
  - ) b) Fssai certified
  - C) HACCP certified
  - () d) HALAL certified

16. 12. Product to be sold among jew people should hold \* (2 Points)

- ) a) Kosher certificate
- ) ISO certificate
- C) Fssai certificate
- ) d) Halal certificate

### 17. 13. ISO for food products \_\_\_\_\_ \* (2 Points)

- ) a) ISO 14000
- () b) ISO 22000
- () c) ISO 12000
- () d) ISO 9001

### 18. 14. Alginates are extracted by \* (2 Points)

- ) a) Freeze drying
- b) Acid precipitation
- C) sedimentation
- d) Ultrafiltration

### 19. 15. Kappaphycus seaweed seeds are developed using \* (2 Points)

- ) a) Raft method
- b) Micropropagation
- C) PTC
- ) d) Cell line culture

- 20. 16. \_\_\_\_\_ is high yielding Kappaphycus culturing methodology followed in Tamilnadu \* (2 Points)
  - ) a) Tubular method
  - O b) Deep stone method
  - C) Bamboo raft method
  - () d) Float tube method

### 21. 17. Alkali used in alginate extraction is \* (2 Points)

- a) Sodium carbonate
- b) Sodium bicarbonate
- C) Sodium hydroxide
- ) d) Sodium sulphate

### 22. 18. Strong Agar is extracted from \* (2 Points)

- ) a) Gelidium Sp
- ) b) Turbeneria Sp
- 🔘 c) Gracilaria Sp
- 🔘 d) Sargassum Sp

23. 19. On raft cultivation distance between two seedling rope should be \_\_\_\_\_\_\* (2 Points)

- ) a) 6 inches
- b) 12 inches
- C) 3inches
- O d) 24 inches

24. 20. Cultivation period of kappaphycus sp on raft will last for \_\_\_\_\_ days \* (2 Points)

- ) a) 55
- O b) 45
- O c) 65
- O d) 35

- 25. 21. Widely seaweeds are rich in \_\_\_\_\_\_\* (2 Points)
  - ) a) Vitamins
  - b) Proteins
  - C) Minerals
  - ) d) Carbohydrate
- 26. 22. Agar food grade material should posses the following mandate certificate to be sold in India \* (2 Points)
  - ) a) ISO
  - b) FSSAI
  - 🔵 c) Halal
  - ) d) GMP

27. 23. Seaweeds get attached to the marine base using \* (2 Points)

- 🔵 a) Roots
- b) Blades
- C) Gas bladder
- 🔵 d) Holdfast

#### 28. 24. Blue green algae come under \* (2 Points)

- ) a) Microalgae
- ) b) Macroalgae
- () c) Fungi
- d) MicroPlant

29. 25. Local name of Turbeneria Sp seaweed \* (2 Points)

J. Shuf.

- ) a) Kattai korai
- 🔵 b) Malli korai
- C) Pepsi paasi
- 🔘 d) Pakoda paasi

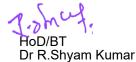
Programme Coordinators

Dr K.Geetha Dr S.Karthikumar

Dr R.Shyam Kumar

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Autonomous Institution - AFRILATED TO ANNA UNIVERENTY, CHEL 2. P.G.G. Negar, K.Vellakulam Natar C. C.Nagaranal Ganger 2. P.G.G. Negar, K.Vellakulam - 622 701 (Near VIRUDHUNAGAR),

# DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course On

# On ALGAL TECHNOLOGY AND APPLICATIONS 06/01/2025 to 10/01/2025

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920423214012 23UBT003 HAMSHAD VANI C 3	23UBT003 HAMSHAD VANI C	HAMSHAD VANI C	3	-	9	3	3	3	3	0	0	3	-	24	9	80
920423214047 23UBT004 VUAYA RAGAVAN G 3	23UBT004 VUAYA RAGAVAN G	VUAYA RAGAVAN G	1	-	3	3	3	3	3	3	3	3	3	30	0	100
920423214033 23UBT006 PORSELVAN.S.G 3	23UBT006 PORSELVAN.S.G	VAN.S.G	3	1.0	3	3	3	3	3	3	3	3		30	0	100
920423214010 23UBT007 ELAKIYA S.R 3	23UBT007 ELAKIYA S.R	ELAKIYA S R	3		3	3	5	3	3	0	0	3	е	24	9	80
920423214051 23UBT008 YAMUNA K 3	23UBT008 YAMUNA K		3		3	3	3	3	3	3	3	3	3	30	0	100
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920423214048 23UBT018 VIMALA I 3	23UBT018 VIMALA I		3	-	3	3	3	m		9	3	3	3	30	0	100
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VIRUDHUNAGA

DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course

ALGAL TECHNOLOGY AND APPLICATIONS 06/01/2025 to 10/01/2025 Connolidated Attendance чÖ

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	No of Hours Absent	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	12	0	0	0	9	0	0
	Total Hours Attended	30	30	30	30	30	30	30	30	30	30	30	30	24	30	30	30	30	24	30	30	30	24	30	30
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	06.01.2025	3	3	3	3	3	3	3	3	3	3	3	3	3	m	3	m	~	3	3	m	9	0	3	3
	Student Name	PUVINA JASMINEJ	MARISHA CHRISTINE STISHA J	KARANYA N	SHALINI T	RAJA PRIYADHARSHINI R	MUKILA K	AKSHAYA R B	RATHI K P	GOWTHAM RAJ R	SUPRIYAD	23UBT035 NAGALAKSHM S	BRINDHA RAJA G	HEMANTH PRAKASH M	D INHZYA	SYED SIRAUTHEEN M	23UBT040 DHIVAKARAN K	SANJAYVEERA S	NAVEEN KUMARN	ANANTHA RAJ J	HARI KRISHNAN K	KRISHNA PRIYANKA G	DHIVYA M	DHARSHINI K	RAKSHANA K
	ROLL NO	23UBT025	23UBT026	23UBT027	23UBT028	23UBT029	23UBT030	23UBT031	23UBT032	23UBT033	23UBT034	23UBT035	23UBT036	23UBT037	23UBT038	23UBT039	23UBT040	23UBT041	23UBT042	23UBT043 /	23UBT044 F	23UBT045 K	23UBT046 D	23UBT047 D	23UBT048 R
	REG NO	920423214035	920423214027	920423214021	920423214042	920423214036	920423214029	920423214001	920423214038	920423214011	920423214043	920423214030	920423214006	920423214016	920423214052	920423214045	920423214008	920423214040	920423214031	920423214002	920423214014	920423214024	920423214009	920423214007	920423214037
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DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course

## On ALGAL TECHNOLOGY AND APPLICATIONS 06/01/2025 to 10/01/2025

1			-	-	-	-	-
1	Attendance	100	100	100	100	100	100
	No of Hours Absent	0	0	0	0	0	0
	Total Hours Attended	30	30	30	30	30	30
	10.01.2025	3	3	3	3	3	3
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	Student Name	920423214019 23UBT049 JEYA PRAKASH J	JANANI S	23UBT051 MOHANRAJ K	920423214049 23UBT052 VISHWAPRIYA V	920423214022 23UBT053 KARISHMA M	MAHESH S
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VAP Coordinators Dr K.Geetha Dr S.Karthikumar Dr R.Shyam Kumar

LULT Hod/AT Dr R.Shyam Kumar IN A REAU

An Autonomous Institution . APPILATED TO ANKA UNIVERSITY, CHR S.P.O.Chidambare Nadar - C.Nagammad Campus S.P.O.C. Nagar, K.Velsakuam - 025 701 (Near VIRUDHUNAGAR).

# DEPARTMENT OF BIOTECHNOLOGY

# Industry Certified Value Added Course ALGAL TECHNOLOGY AND APPLICATIONS

06/01/2025 to 10/01/2025

Attendance

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Student Name	Session	LALITH RAU B	HARIPRASATH S	HAMSHAD VANI C	23UBT004 VIJAYA RAGAVAN G	23UBT006 PORSELVAN.S.G	<b>TAKIYA SR</b>	YAMUNA K	APARNA S	VIVEHA BALA S	JEYA SUGESH A	23UBT012 PRIYADHARSHINI M	SWETHA S	SINIHSO	23UBT015 SENTAMIL ARASIC	ATCHIAHS	D INIHZYA	(IMALA I	VEERALAKSHMI V	23UBT020 JEEVAASRI S B	NAYAANAS	HARI BALAMURUGAN P	KAVIYASREE M	ARUN ADHITHYAN S	
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DEPARTMENT OF BIOTECHNOLOGY

Industry Certified Value Added Course On ALGAL TECHNOLOGY AND APPLICATIONS

06/01/2025 to 10/01/2025

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# DEPARTMENT OF BIOTECHNOLOGY

# Industry Certified Value Added Course ALGAL TECHNOLOGY AND APPLICATIONS 06/01/2025 to 10/01/2025

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#### DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course On ALGAL TECHNOLOGY AND APPLICATIONS 06/01/2025 to 10/01/2025

**External Assessment Attendance** 

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1	920423214025	23UBT001	LALITH RAJ B	B. Lelithay
2	920423214015	23UBT002	HARIPRASATH S	Absent
3	920423214012	23UBT003	HAMSHAD VANI C	C.H.t.
4	920423214047	23UBT004	VIJAYA RAGAVAN G	QA-P'
5	920423214033	23UBT006	PORSELVAN.S.G	Port
6	920423214010	23UBT007	ELAKIYA S R	Attudid and diper to internet
7	920423214051	23UBT008	YAMUNA K	Jay 200.
8	920423214003	23UBT009	APARNA S	Dans.
9	920423214050	23UBT010	VIVEHA BALA S	Sivehald!
10	920423214020	23UBT011	JEYA SUGESH A	the .
11	920423214034	23UBT012	PRIYADHARSHINI M	Kypenz].
12	920423214044	23UBT013	SWETHA S	S. Rute
13	920423214039	23UBT014	ROSHINIS	du to inter.
14	920423214041	23UBT015	SENTAMIL ARASIC	erez
15	920423214005	23UBT016	ATCHIAH S	Sitter.
16	920423214053	23UBT017	YAZHINI G	61. Yagy



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#### DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course On ALGAL TECHNOLOGY AND APPLICATIONS 06/01/2025 to 10/01/2025

**External Assessment Attendance** 

S.No.	REG NO	ROLL NO	Student Name	25.01.2025
17	920423214048	23UBT018	VIMALA I	Vimele. I
18	920423214046	23UBT019	VEERALAKSHMI V	V.H.
19	920423214018	23UBT020	JEEVAASRI S B	Frhi
20	920423214032	23UBT021	NAYAANA.S	Attended only due to internet
21	920423214013	23UBT022	HARI BALAMURUGAN P	P. Hai Bah maio
22	920423214023	23UBT023	KAVIYASREE M	Attended andis due to interpli
23	920423214004	23UBT024	ARUN ADHITHYAN S	Strunghetty
24	920423214035	23UBT025	PUVINA JASMINEJ	& Puvipa Jasr
25	920423214027	23UBT026	MARISHA CHRISTINE STISHA J	Jolef
26	920423214021	23UBT027	KARANYA N	N. Kouranyant.
27	920423214042	23UBT028	SHALINI T	T.Shelin.
28	920423214036	23UBT029	RAJA PRIYADHARSHINI R	R. Bijap narochaeth
29	920423214029	23UBT030	MUKILA K	K-Makilo
30	92042321400Í	23UBT031	AKSHAYA R B	RB Seeye
31	920423214038	23UBT032	RATHI К Р	JK. P. Rathi
32	920423214011	23UBT033	GOWTHAM RAJ R	Rentation
33	920423214043	23UBT034	SUPRIYA D	D. Suppriza



#### DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course On ALGAL TECHNOLOGY AND APPLICATIONS 06/01/2025 to 10/01/2025

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34	920423214030	23UBT035	NAGALAKSHM S	S. Nogalalyhi
35	920423214006	23UBT036	BRINDHA RAJA G	Gi Brindharajam.
36	920423214016	23UBT037	HEMANTH PRAKASH M	tempt
37	920423214052	23UBT038	YAZHINI D	Attended antin due to interchip.
38	920423214045	23UBT039	SYED SIRAJUTHEEN M	Altended from Hospital - Onlin
39	920423214008	23UBT040	DHIVAKARAN K	K. Pto
40	920423214040	23UBT041	SANJAYVEERA S	5. Sart
41	920423214031	23UBT042	NAVEEN KUMARN	N. North
42	920423214002	23UBT043	ANANTHA RAJ J	JAJ
43	920423214014	23UBT044	HARI KRISHNAN K	Islandor De
44	920423214024	23UBT045	KRISHNA PRIYANKA G	Cr. Bright
45	920423214009	23UBT046	DHIVYA M	M. Sh
46	920423214007	23UBT047	DHARSHINI K	d. Bali
47	920423214037	23UBT048	RAKSHANA K	Kike
48	920423214019	23UBT049	JEYA PRAKASH J	J.P.F.
49	920423214017	23UBT050	JANANI S	Sinter
50	920423214028	23UBT051	MOHANRAJ K	KAD



#### DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course On ALGAL TECHNOLOGY AND APPLICATIONS 06/01/2025 to 10/01/2025

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51	920423214049	23UBT052	VISHWAPRIYA V	W.V. Pys
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53	920423214026	23UBT054	MAHESH S	Shi

Coordinate

Dr K.Geetha

Dr S.Karthikumar Dr R.Shyam Kumar

Sea2Farm,

Ramanathapuram Mr. R.P.Rajadurai

Jesudoss

Dr R.Shyam Kumar

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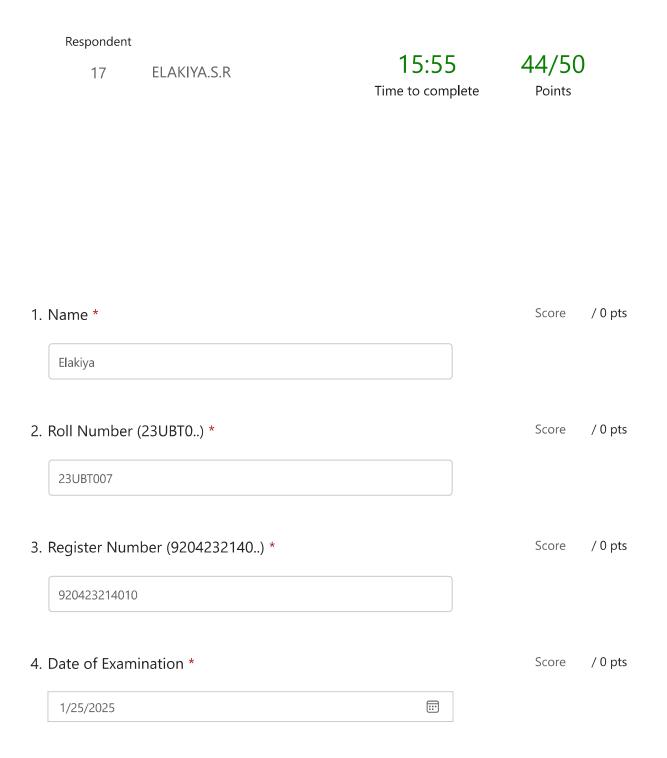
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Programme Coordinators Dr K.Geetha Dr S.Karthikumar Dr R.Shyam Kumar

1.2m HoD/BT Dr R.Shyam Kumar

### Review: External Exam: VAP on ALGAL TECHNOLOGY AND APPLICATIONS- 2024-25 Even



Multiple Choice Questions. Answer all questions.

2 ✓ **Correct** 2/2 Points 5. 1. SRC stands for \* a) Semi refined Carrageenan 🗸 b) Semi refined Agar c) Sargassum rich consortium d) Semi refined cyanobacteria 2 ✓ **Correct** 2/2 Points 6. 2. Green algae are abundant in \* a) Intertidal zone 🗸 b) Mesopelagic zone c) Continental shelf d) Continental drift 2 ✓ **Correct** 2/2 Points 7. 3. Spot the non-native seaweed of India \* a) Sargassum sp

- b) Gelidium Sp
- 🔵 c) Kappaphycus Sp 🗸
- ) d) Turbeneria Sp

2 / 2 pts Auto-graded

2 / 2 pts Auto-graded

2 / 2 pts Auto-graded

✓ <b>Correct</b> 2/2 Points	2 / 2 pts Auto-graded
8. 4. Central nodel institute working on algal research *	
) CMFRI	
) CFTRI	
C) CSMCRI 🗸	
) CECRI	
✓ <b>Correct</b> 2/2 Points	2 / 2 pts Auto-graded
9. 5. Model agar and carrageenan extraction unit at mandapam Tamilnadu was governed under *	
a) State agriculture department	
● b) State fisheries department ✓	
C) State coastal department	
) State gulf of mannar development department	
✓ <b>Correct</b> 2/2 Points	2 / 2 pts Auto-graded

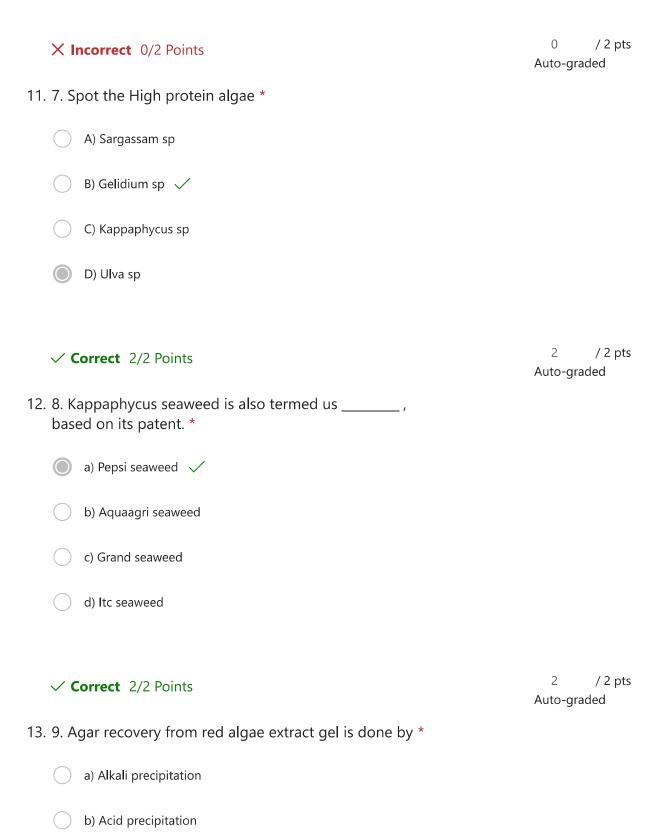
10. 6. Agar Agar was extracted from \*

a) Ulva sp

b) Kappaphycus sp

c) Gelidium sp 🗸 

d) Sargassam sp



) c) Centrifugal force

🔵 d) Freeze thawing 🗸

https://forms.office.com/Pages/DesignPageV2.aspx?prevorigin=shell&origin=NeoPortalPage&subpage=design&id=GdlmJvzxJ0C5xSEtTpXmih0... 4/10

2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 14. 10. E406 was assigned to \* a) Sodium alginate b) Agar agar 🗸 c) Caragennan d) Alginic acid 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 15. 11. If Agar was value added for Islamic population, it should be mandatorily \* a) Kosher certified b) Fssai certified c) HACCP certified d) HALAL certified  $\checkmark$ 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 16. 12. Product to be sold among jew people should hold \* a) Kosher certificate 🗸 b) ISO certificate

) d) Halal certificate

c) Fssai certificate

https://forms.office.com/Pages/DesignPageV2.aspx?prevorigin=shell&origin=NeoPortalPage&subpage=design&id=GdlmJvzxJ0C5xSEtTpXmih0... 5/10

✓ <b>Correct</b> 2/2 Points	2 / 2 pts Auto-graded
17. 13. ISO for food products *	
() a) ISO 14000	
● b) ISO 22000 ✓	
) ISO 12000	
() ISO 9001	
✓ <b>Correct</b> 2/2 Points	2 / 2 pts Auto-graded
18. 14. Alginates are extracted by *	
) Freeze drying	
$\bigcirc$ b) Acid precipitation $\checkmark$	
<ul><li>c) sedimentation</li></ul>	
) Ultrafiltration	
✓ <b>Correct</b> 2/2 Points	2 / 2 pts Auto-graded
19. 15. Kappaphycus seaweed seeds are developed using *	
) Raft method	
b) Micropropagation	

c) PTC

d) Cell line culture

 $https://forms.office.com/Pages/DesignPageV2.aspx?prevorigin=shell&origin=NeoPortalPage&subpage=design&id=GdlmJvzxJ0C5xSEtTpXmih0\dots$ 6/10

#### ✓ Correct 2/2 Points

2 / 2 pts Auto-graded

- 20. 16. \_\_\_\_\_ is high yielding Kappaphycus culturing methodology followed in Tamilnadu \*
  - a) Tubular method
  - b) Deep stone method
  - 🔵 c) Bamboo raft method 🗸
  - d) Float tube method

#### X Incorrect 0/2 Points

0 / 2 pts Auto-graded

2

Auto-graded

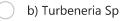
/ 2 pts

21. 17. Alkali used in alginate extraction is \*

- ) a) Sodium carbonate 🗸
- b) Sodium bicarbonate
- ) c) Sodium hydroxide
- d) Sodium sulphate

#### ✓ **Correct** 2/2 Points

- 22. 18. Strong Agar is extracted from \*
  - 🔵 a) Gelidium Sp 🗸



c) Gracilaria Sp

d) Sargassum Sp

#### X Incorrect 0/2 Points

23. 19. On raft cultivation distance between two seedling rope should be \_\_\_\_\_\_\*

24. 20. Cultivation period of kappaphycus sp on raft will last

🔵 a) 6 inches 🗸

- b) 12 inches
- c) 3inches
- ) d) 24 inches

for \_\_\_\_\_ days \*

a) 55

✓ Correct 2/2 Points

2 / 2 pts Auto-graded

0

Auto-graded

/ 2 pts

# b) 45 c) 65 d) 35

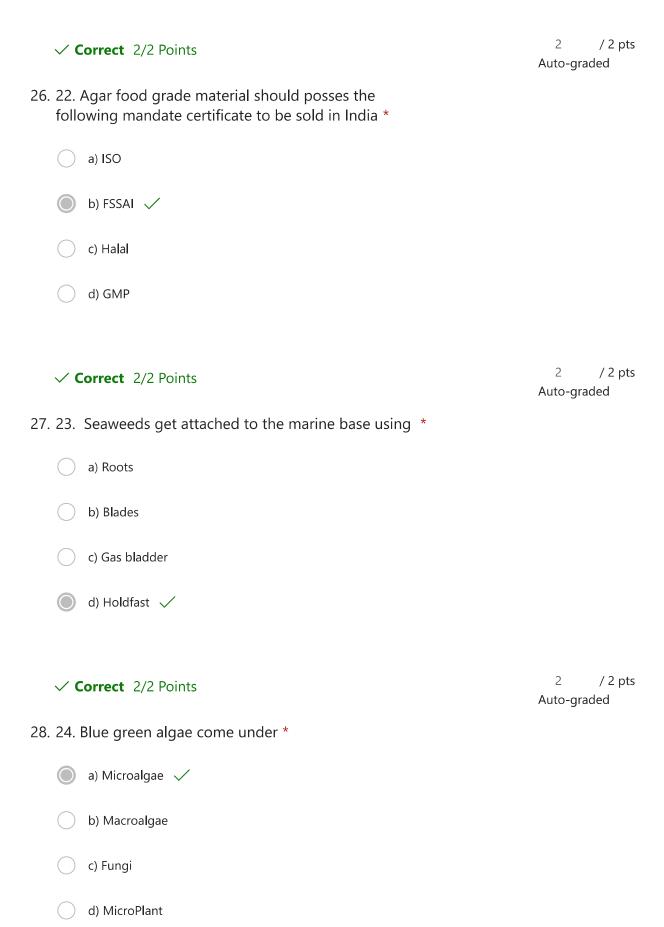
✓ Correct 2/2 Points

2 / 2 pts Auto-graded

25. 21. Widely seaweeds are rich in \_\_\_\_\_\_\*

- a) Vitamins
- b) Proteins
- ) c) Minerals

🔵 d) Carbohydrate 🗸



#### ✓ **Correct** 2/2 Points

2 / 2 pts Auto-graded

- 29. 25. Local name of Turbeneria Sp seaweed \*
  - 🔵 a) Kattai korai
  - 🔵 b) Malli korai
  - ) Pepsi paasi
  - 🔵 d) Pakoda paasi 🗸

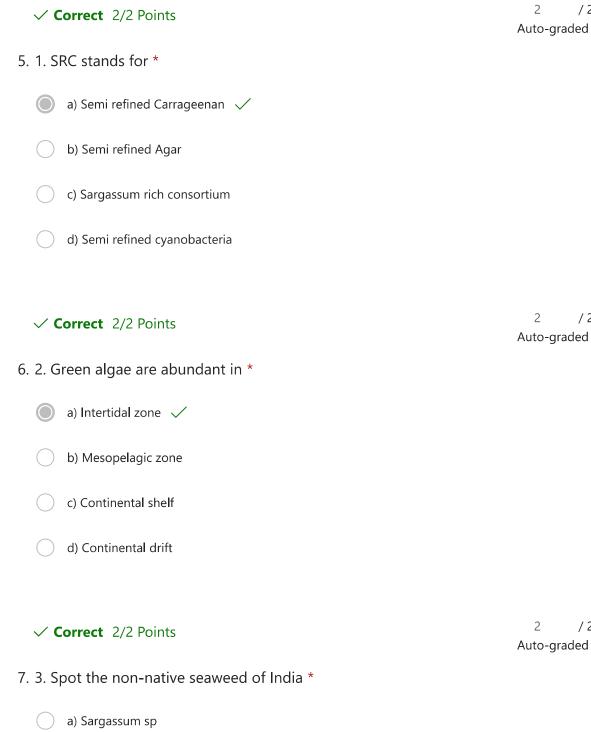
Programme Coordinators Dr K.Geetha Dr S.Karthikumar Dr R.Shyam Kumar

Dr R.Shyam Kumar

### Review: External Exam: VAP on ALGAL TECHNOLOGY AND APPLICATIONS- 2024-25 Even

	Respondent 42	SWETHA.S	26:05 Time to com		/50 ints	
1.	Name *			Sc	ore /	0 pts
	S.swetha					
2.	Roll Number	(23UBT0) *		Sc	ore /	0 pts
	23UBT013					
3.	Register Num	ber (9204232140) *		Sc	ore /	0 pts
	920423214044					
4.	Date of Exam	ination *		Sc	ore /	0 pts
	1/25/2025					

Multiple Choice Questions. Answer all questions.



- b) Gelidium Sp
- c) Kappaphycus Sp 🗸

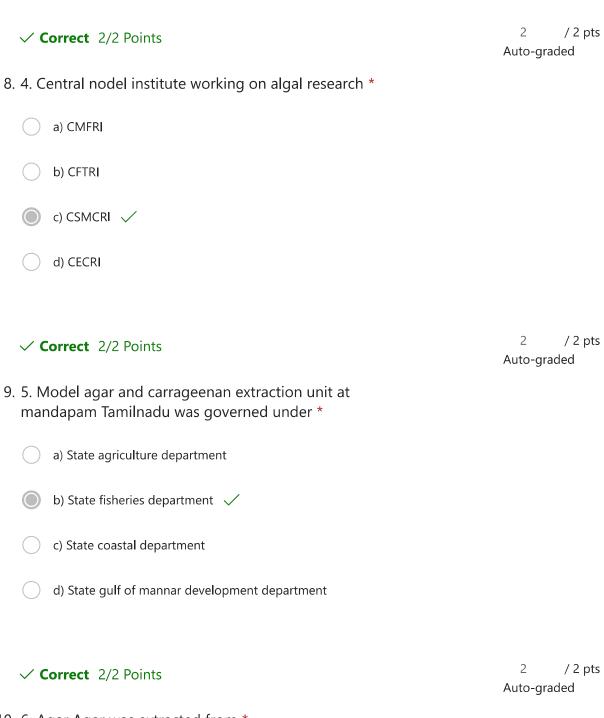
d) Turbeneria Sp

/ 2 pts

/ 2 pts

/ 2 pts

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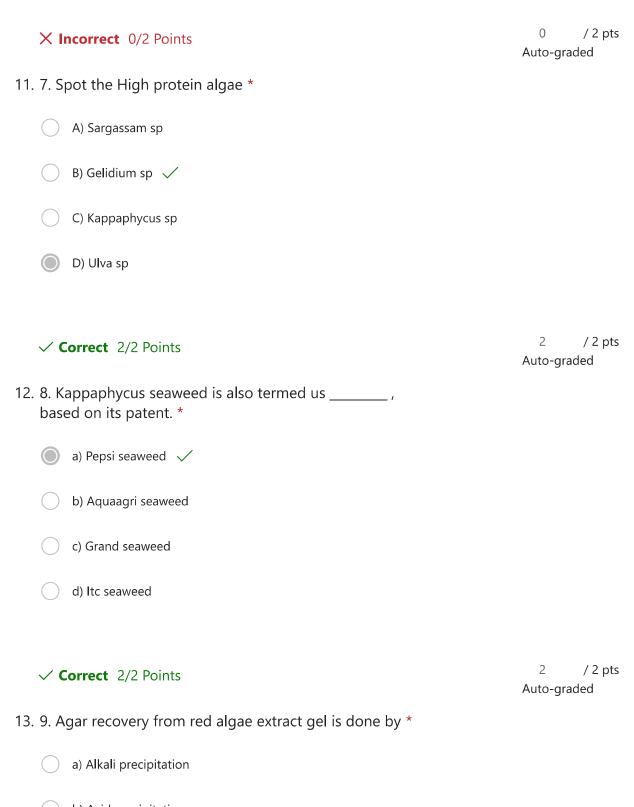
10. 6. Agar Agar was extracted from \*

a) Ulva sp

b) Kappaphycus sp

c) Gelidium sp 🗸

d) Sargassam sp



b) Acid precipitation

c) Centrifugal force

🔵 d) Freeze thawing 🗸

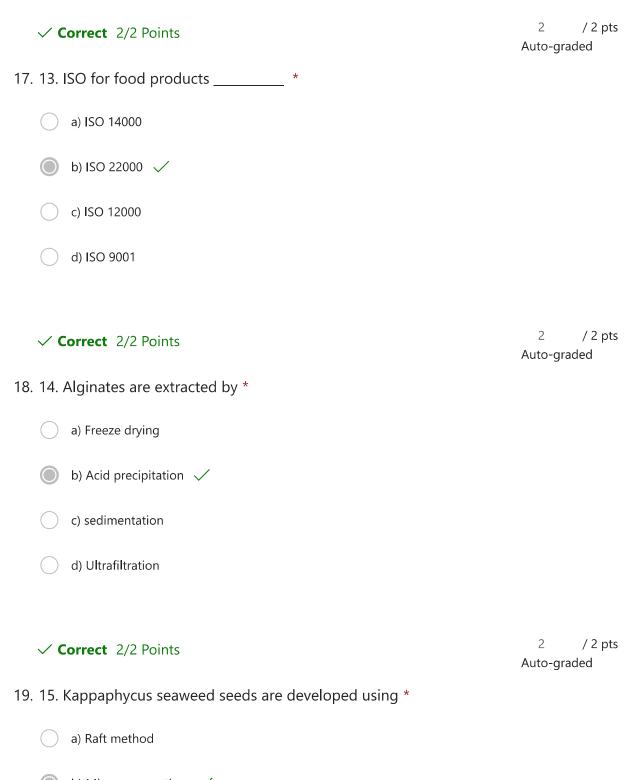
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2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 14. 10. E406 was assigned to \* a) Sodium alginate b) Agar agar 🗸 c) Caragennan d) Alginic acid 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 15. 11. If Agar was value added for Islamic population, it should be mandatorily \* a) Kosher certified b) Fssai certified c) HACCP certified d) HALAL certified  $\checkmark$ 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 16. 12. Product to be sold among jew people should hold \* a) Kosher certificate 🗸 b) ISO certificate

) d) Halal certificate

c) Fssai certificate

https://forms.office.com/Pages/DesignPageV2.aspx?prevorigin=shell&origin=NeoPortalPage&subpage=design&id=GdlmJvzxJ0C5xSEtTpXmih0... 5/10



🔵 b) Micropropagation 🗸

) c) PTC

d) Cell line culture

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## ✓ Correct 2/2 Points

2 / 2 pts Auto-graded

- 20. 16. \_\_\_\_\_ is high yielding Kappaphycus culturing methodology followed in Tamilnadu \*
  - a) Tubular method
  - b) Deep stone method
  - 🔵 c) Bamboo raft method 🗸
  - ) float tube method

#### ✓ **Correct** 2/2 Points

2 / 2 pts Auto-graded

2

Auto-graded

/ 2 pts

21. 17. Alkali used in alginate extraction is \*

- a) Sodium carbonate 🗸
- b) Sodium bicarbonate
- ) c) Sodium hydroxide
- d) Sodium sulphate

#### ✓ **Correct** 2/2 Points

- 22. 18. Strong Agar is extracted from \*
  - 🔵 a) Gelidium Sp 🗸



c) Gracilaria Sp

d) Sargassum Sp

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#### X Incorrect 0/2 Points

23. 19. On raft cultivation distance between two seedling rope should be \_\_\_\_\_\_\*

🔵 a) 6 inches 🗸

- b) 12 inches
- c) 3inches
- d) 24 inches

✓ Correct 2/2 Points

2 / 2 pts Auto-graded

0

Auto-graded

/ 2 pts

# 24. 20. Cultivation period of kappaphycus sp on raft will last for \_\_\_\_\_ days \* a) 55

- 🔘 b) 45 🗸
- ) c) 65
- 🔵 d) 35

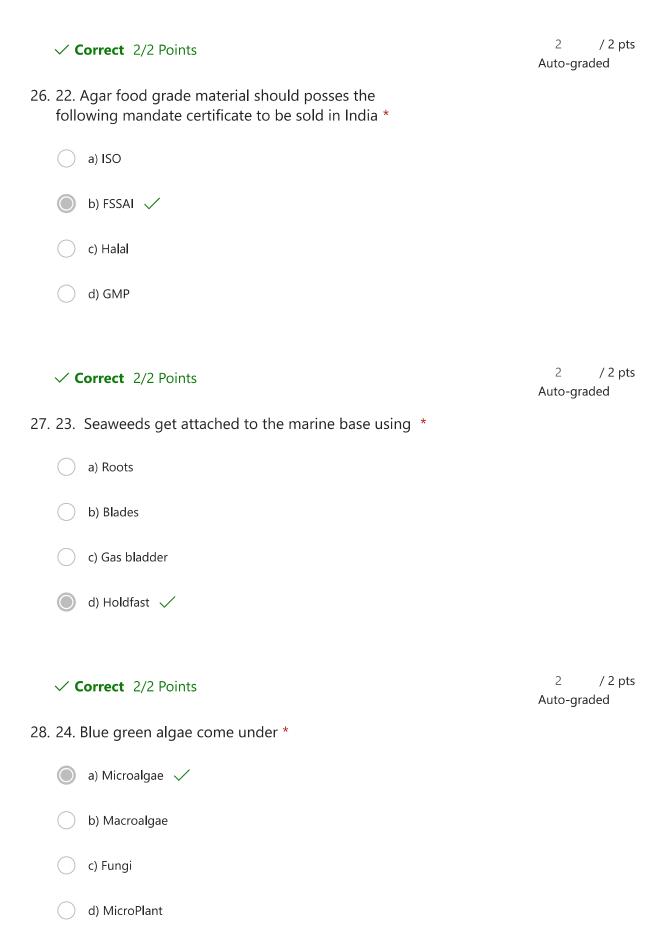
#### ✓ **Correct** 2/2 Points

25. 21. Widely seaweeds are rich in \_\_\_\_\_\_\*

- a) Vitamins
- b) Proteins
- c) Minerals

) d) Carbohydrate 🗸

2 / 2 pts Auto-graded





2 / 2 pts Auto-graded

- 29. 25. Local name of Turbeneria Sp seaweed \*
  - 🔵 a) Kattai korai
  - 🔵 b) Malli korai
  - ) Pepsi paasi
  - 🔵 d) Pakoda paasi 🗸

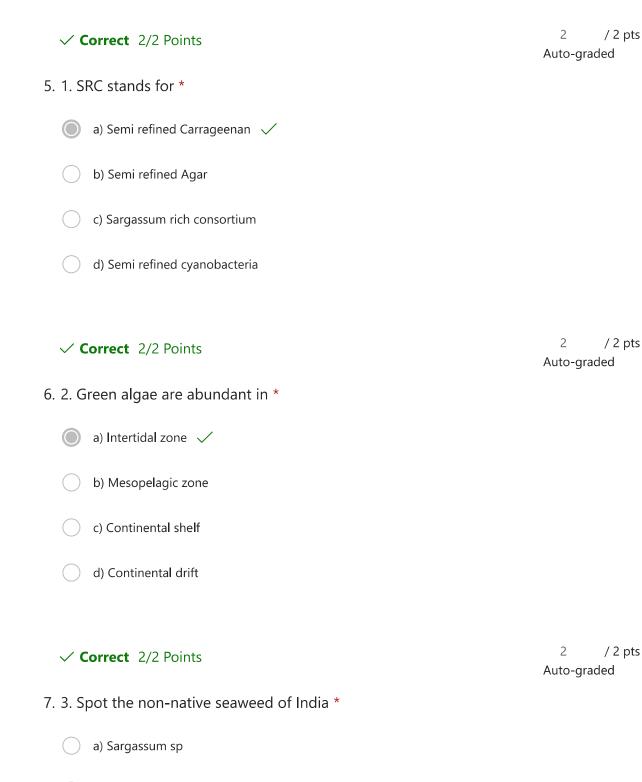
Programme Coordinators Dr K.Geetha Dr S.Karthikumar Dr R.Shyam Kumar

HoD/BT Dr R.Shyam Kumar

### Review: External Exam: VAP on ALGAL TECHNOLOGY AND APPLICATIONS- 2024-25 Even

Respondent						
	14	NAYAANA.S	<b>16:46</b> Time to comp		e Points	
1.	Name *				Score	/ 0 pts
	NAYAANA S					
2.	Roll Number	(23UBT0) *			Score	/ 0 pts
	23UBT021					
3.	Register Nun	nber (9204232140) *			Score	/ 0 pts
	920423214032	2				
4.	Date of Exam	nination *			Score	/ 0 pts
	1/25/2025					

Multiple Choice Questions. Answer all questions.



- b) Gelidium Sp
- 🔵 c) Kappaphycus Sp 🗸

) d) Turbeneria Sp

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#### 0 / 2 pts X Incorrect 0/2 Points Auto-graded 8. 4. Central nodel institute working on algal research \* a) CMFRI b) CFTRI c) CSMCRI 🗸 d) CECRI 0 / 2 pts X Incorrect 0/2 Points Auto-graded 9. 5. Model agar and carrageenan extraction unit at mandapam Tamilnadu was governed under \* a) State agriculture department b) State fisheries department $\checkmark$ c) State coastal department d) State gulf of mannar development department

#### ✓ **Correct** 2/2 Points

10. 6. Agar Agar was extracted from \*

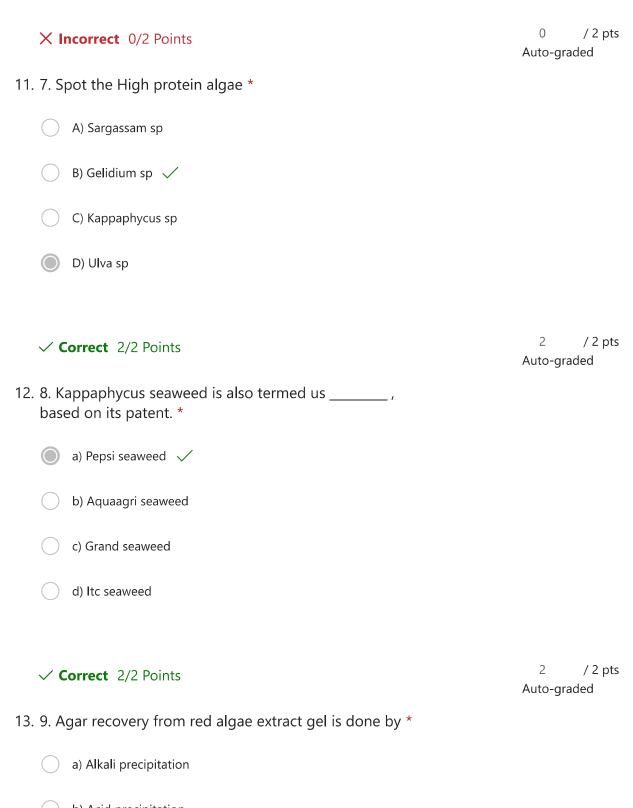
) a) Ulva sp

b) Kappaphycus sp

🔵 c) Gelidium sp 🗸

) d) Sargassam sp

2 / 2 pts Auto-graded



b) Acid precipitation

c) Centrifugal force

🔵 d) Freeze thawing 🗸

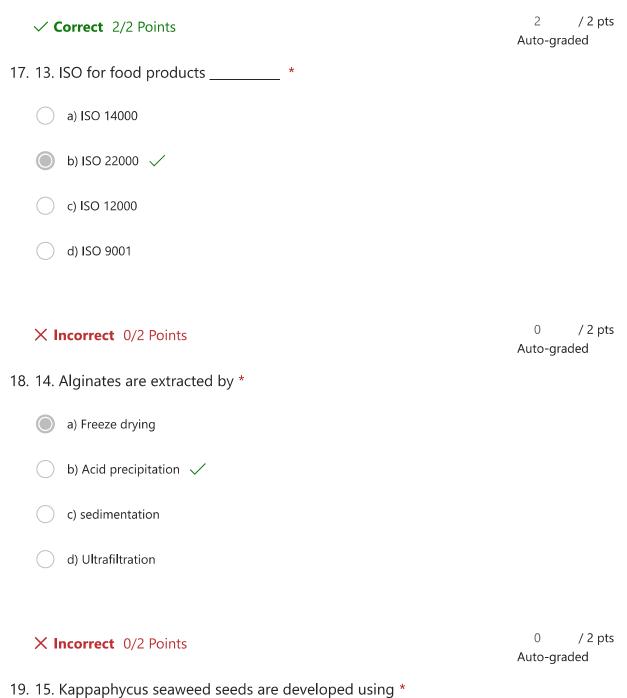
https://forms.office.com/Pages/DesignPageV2.aspx?prevorigin=shell&origin=NeoPortalPage&subpage=design&id=GdlmJvzxJ0C5xSEtTpXmih0... 4/10

2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 14. 10. E406 was assigned to \* a) Sodium alginate b) Agar agar 🗸 c) Caragennan d) Alginic acid 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 15. 11. If Agar was value added for Islamic population, it should be mandatorily \* a) Kosher certified b) Fssai certified c) HACCP certified d) HALAL certified  $\checkmark$ 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 16. 12. Product to be sold among jew people should hold \* a) Kosher certificate 🗸 b) ISO certificate

) d) Halal certificate

c) Fssai certificate

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a) Raft method b) Micropropagation  $\checkmark$ 

c) PTC

d) Cell line culture

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### ✓ Correct 2/2 Points

2 / 2 pts Auto-graded

- 20. 16. \_\_\_\_\_ is high yielding Kappaphycus culturing methodology followed in Tamilnadu \*
  - a) Tubular method
  - b) Deep stone method
  - 🔵 c) Bamboo raft method 🗸
  - d) Float tube method

### X Incorrect 0/2 Points

0 / 2 pts Auto-graded

2

Auto-graded

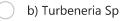
/ 2 pts

21. 17. Alkali used in alginate extraction is \*

- ) a) Sodium carbonate 🗸
- b) Sodium bicarbonate
- ) c) Sodium hydroxide
- d) Sodium sulphate

### ✓ **Correct** 2/2 Points

- 22. 18. Strong Agar is extracted from \*
  - 🔵 a) Gelidium Sp 🗸



c) Gracilaria Sp

d) Sargassum Sp

### X Incorrect 0/2 Points

23. 19. On raft cultivation distance between two seedling rope should be \_\_\_\_\_\_\*

24. 20. Cultivation period of kappaphycus sp on raft will last

🔵 a) 6 inches 🗸

- b) 12 inches
- c) 3inches
- d) 24 inches

for \_\_\_\_\_ days \*

a) 55

✓ Correct 2/2 Points

2 / 2 pts Auto-graded

0

Auto-graded

/ 2 pts

# b) 45 c) 65 d) 35

✓ Correct 2/2 Points

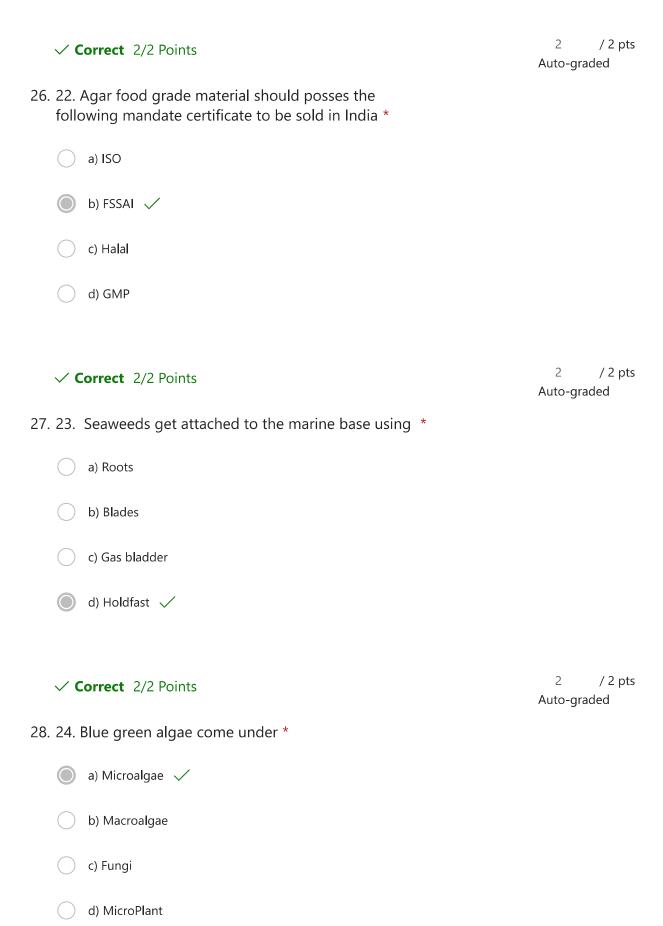
2 / 2 pts Auto-graded

25. 21. Widely seaweeds are rich in \_\_\_\_\_\_\*

a) Vitamins

- b) Proteins
- ) c) Minerals

) d) Carbohydrate 🗸





- 29. 25. Local name of Turbeneria Sp seaweed \*
  - 🔵 a) Kattai korai
  - 🔵 b) Malli korai
  - ) Pepsi paasi
  - 🔵 d) Pakoda paasi 🗸

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

HoD/BT Dr R.Shyam Kumar

## Review: External Exam: VAP on ALGAL TECHNOLOGY AND APPLICATIONS- 2024-25 Even

	Respondent		. – – –		
	12	AKSHAYA.R.B	15:28 Time to com		
			Time to com	piete Foin	
1.	Name *			Score	e / 0 pts
	R.B.AKSHAYA				
				, ,	
2.	Roll Number	(23UBT0) *		Score	e / 0 pts
	23UBT031				
				J	
3.	Register Nun	nber (9204232140) *		Score	e / 0 pts
	920423214001				
	JEGHESETHOO	·		J	
4.	Date of Exam	ination *		Score	e / 0 pts
	-			]	·
	1/25/2025				

Multiple Choice Questions. Answer all questions.

2 ✓ **Correct** 2/2 Points 5. 1. SRC stands for \* a) Semi refined Carrageenan 🗸 b) Semi refined Agar c) Sargassum rich consortium d) Semi refined cyanobacteria 2 ✓ **Correct** 2/2 Points Auto-graded 6. 2. Green algae are abundant in \* a) Intertidal zone 🗸 b) Mesopelagic zone c) Continental shelf d) Continental drift 2 ✓ **Correct** 2/2 Points Auto-graded 7. 3. Spot the non-native seaweed of India \* a) Sargassum sp

b) Gelidium Sp

c) Kappaphycus Sp 🗸

d) Turbeneria Sp

/ 2 pts Auto-graded

/ 2 pts

/ 2 pts

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2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 8. 4. Central nodel institute working on algal research \* a) CMFRI b) CFTRI c) CSMCRI 🗸 d) CECRI 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 9. 5. Model agar and carrageenan extraction unit at mandapam Tamilnadu was governed under \* a) State agriculture department b) State fisheries department  $\checkmark$ c) State coastal department d) State gulf of mannar development department 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded

10. 6. Agar Agar was extracted from \*

) a) Ulva sp

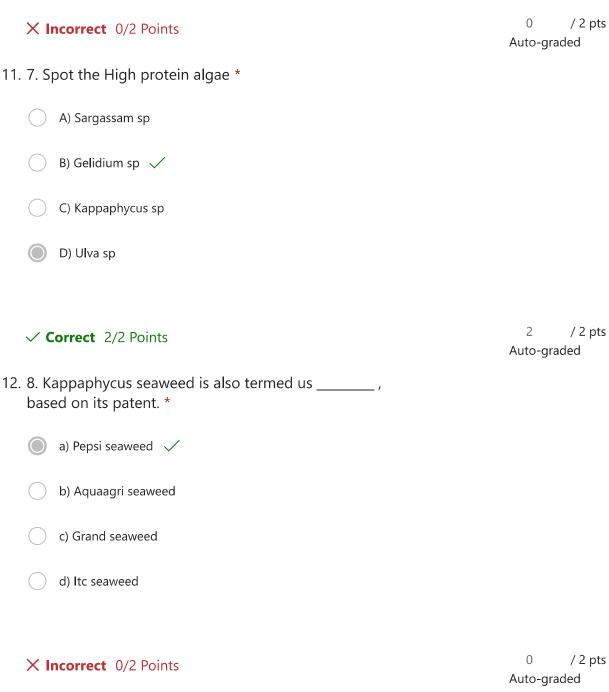
b) Kappaphycus sp

🔵 c) Gelidium sp 🗸

) d) Sargassam sp

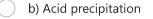
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3/10



13. 9. Agar recovery from red algae extract gel is done by \*

a) Alkali precipitation



c) Centrifugal force

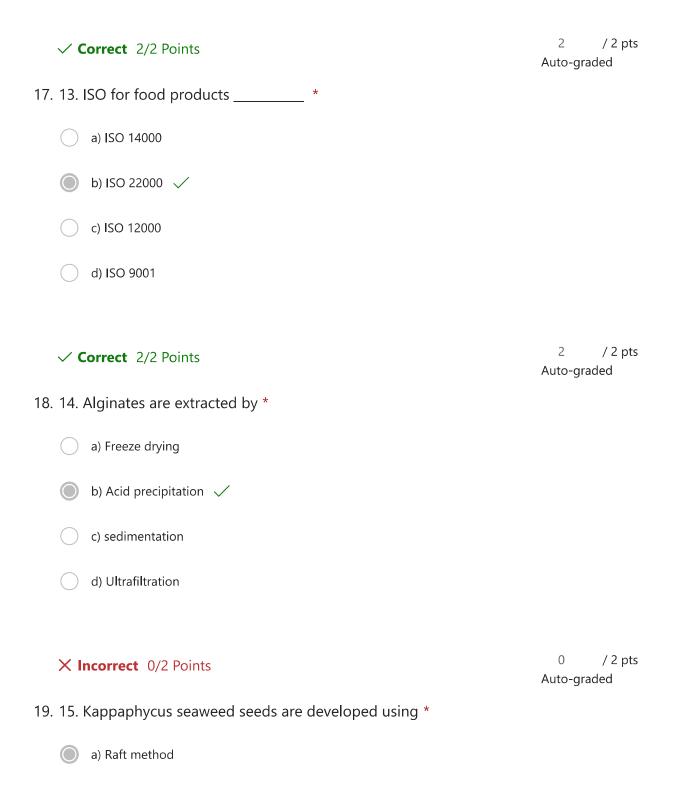
d) Freeze thawing  $\checkmark$ 

2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 14. 10. E406 was assigned to \* a) Sodium alginate b) Agar agar 🗸 c) Caragennan d) Alginic acid 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 15. 11. If Agar was value added for Islamic population, it should be mandatorily \* a) Kosher certified b) Fssai certified c) HACCP certified d) HALAL certified  $\checkmark$ 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 16. 12. Product to be sold among jew people should hold \* a) Kosher certificate 🗸 b) ISO certificate

c) Fssai certificate

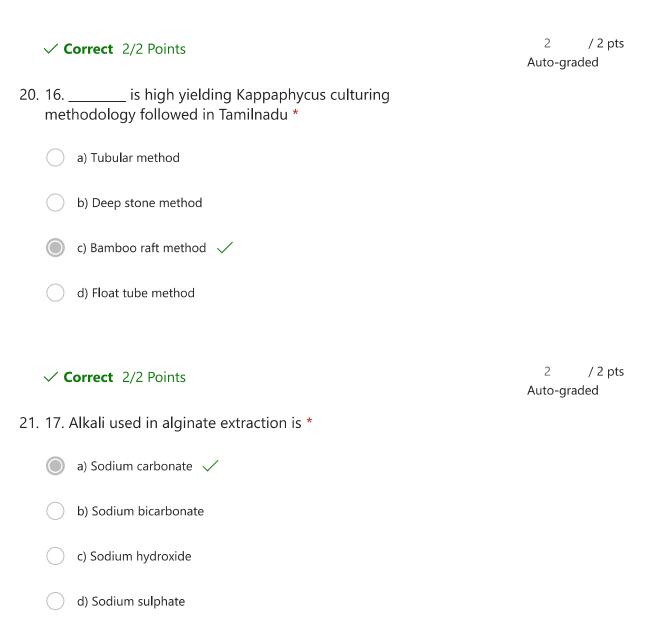
d) Halal certificate

https://forms.office.com/Pages/DesignPageV2.aspx?prevorigin=shell&origin=NeoPortalPage&subpage=design&id=GdImJvzxJ0C5xSEtTpXmih0... 5/10



- 🔵 b) Micropropagation 🗸
- ) PTC

d) Cell line culture



### ✓ **Correct** 2/2 Points

- 22. 18. Strong Agar is extracted from \*
  - 🔵 a) Gelidium Sp 🗸



) c) Gracilaria Sp

) d) Sargassum Sp

### X Incorrect 0/2 Points

23. 19. On raft cultivation distance between two seedling rope should be \_\_\_\_\_\_\*

🔵 a) 6 inches 🗸

- b) 12 inches
- c) 3inches
- d) 24 inches

✓ Correct 2/2 Points

2 / 2 pts Auto-graded

0

Auto-graded

/ 2 pts

# 24. 20. Cultivation period of kappaphycus sp on raft will last for \_\_\_\_\_ days \* a) 55

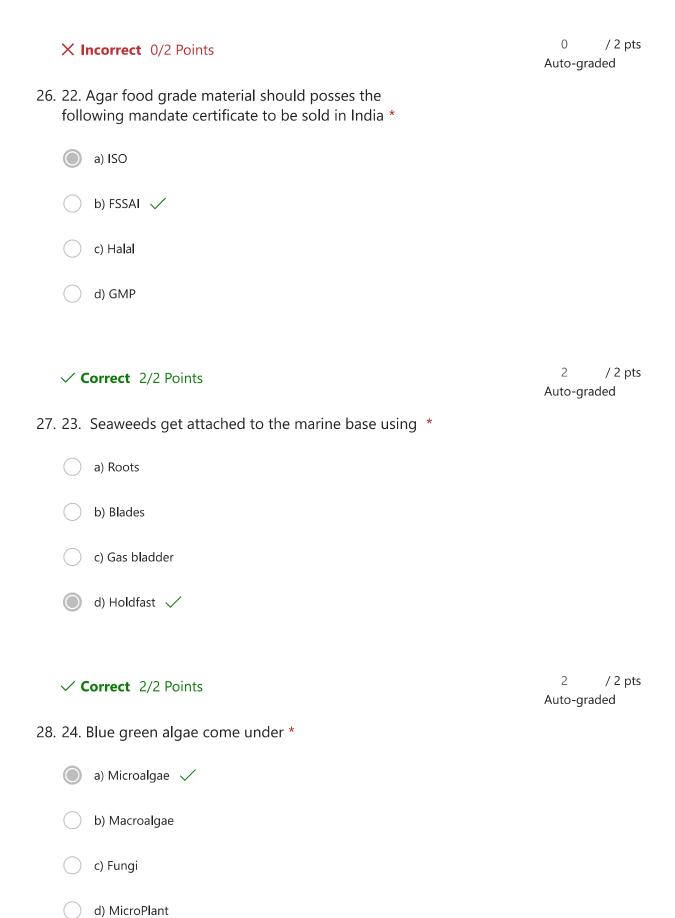
- 🔘 b) 45 🗸
- 🔵 c) 65
- 🔵 d) 35

### ✓ **Correct** 2/2 Points

25. 21. Widely seaweeds are rich in \_\_\_\_\_\_ \*

- a) Vitamins
- b) Proteins
- c) Minerals

) d) Carbohydrate 🗸



✓ **Correct** 2/2 Points

29. 25. Local name of Turbeneria Sp seaweed \*

) a) Kattai korai

🔵 b) Malli korai

) Pepsi paasi

🔵 d) Pakoda paasi 🗸

Tomof.

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

HoD/BT Dr R.Shyam Kumar

2

Auto-graded

/ 2 pts

## Review: External Exam: VAP on ALGAL TECHNOLOGY AND APPLICATIONS- 2024-25 Even

Respondent 8 SHALINI.T	15:35 Time to complete	38/50 Points
1. Name *		Score / 0 pts
Shalini T		
2. Roll Number (23UBT0) *		Score / 0 pts
23UBT028		
3. Register Number (9204232140) *		Score / 0 pts
920423214042		
4. Date of Examination *		Score / 0 pts
1/25/2025		

Multiple Choice Questions. Answer all questions.

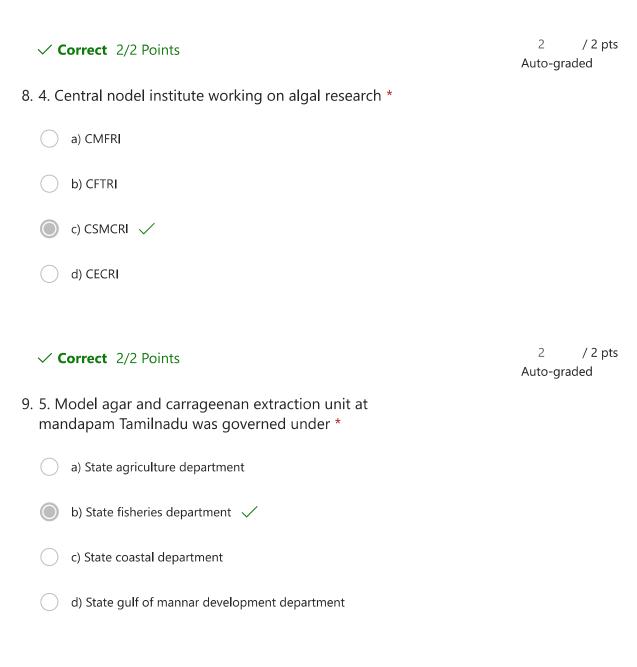
✓ **Correct** 2/2 Points 5. 1. SRC stands for \* a) Semi refined Carrageenan 🗸 b) Semi refined Agar c) Sargassum rich consortium d) Semi refined cyanobacteria 2 ✓ **Correct** 2/2 Points 6. 2. Green algae are abundant in \* a) Intertidal zone 🗸 b) Mesopelagic zone c) Continental shelf d) Continental drift 2 ✓ **Correct** 2/2 Points 7. 3. Spot the non-native seaweed of India \* a) Sargassum sp

- b) Gelidium Sp
- c) Kappaphycus Sp 🗸

d) Turbeneria Sp

2 / 2 pts Auto-graded

/ 2 pts Auto-graded



### X Incorrect 0/2 Points

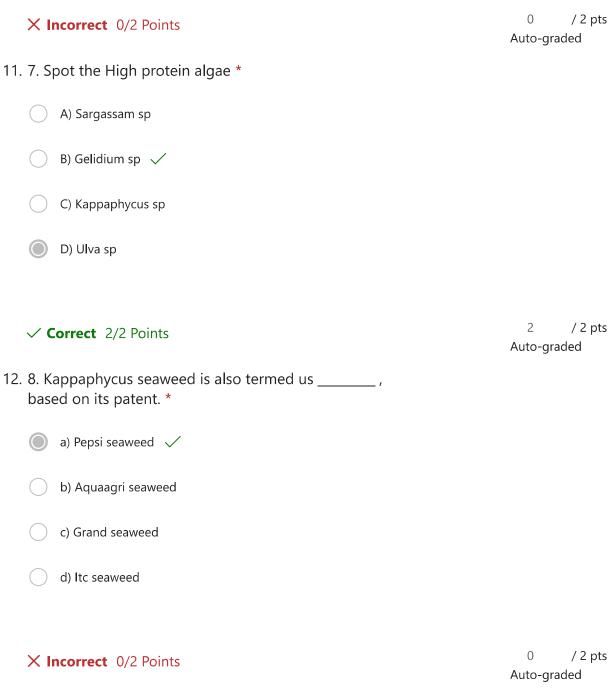
10. 6. Agar Agar was extracted from \*

) a) Ulva sp

b) Kappaphycus sp

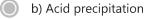
🔵 c) Gelidium sp 🗸

🔵 d) Sargassam sp



13. 9. Agar recovery from red algae extract gel is done by \*

a) Alkali precipitation



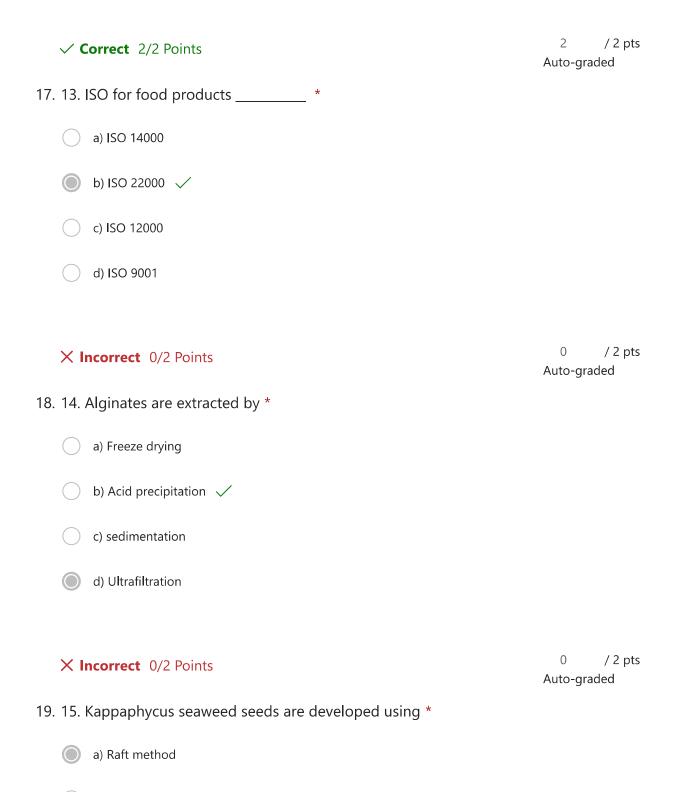
c) Centrifugal force

d) Freeze thawing  $\checkmark$ 

2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 14. 10. E406 was assigned to \* a) Sodium alginate b) Agar agar 🗸 c) Caragennan d) Alginic acid 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 15. 11. If Agar was value added for Islamic population, it should be mandatorily \* a) Kosher certified b) Fssai certified c) HACCP certified d) HALAL certified  $\checkmark$ 2 / 2 pts ✓ **Correct** 2/2 Points Auto-graded 16. 12. Product to be sold among jew people should hold \* a) Kosher certificate 🗸 b) ISO certificate

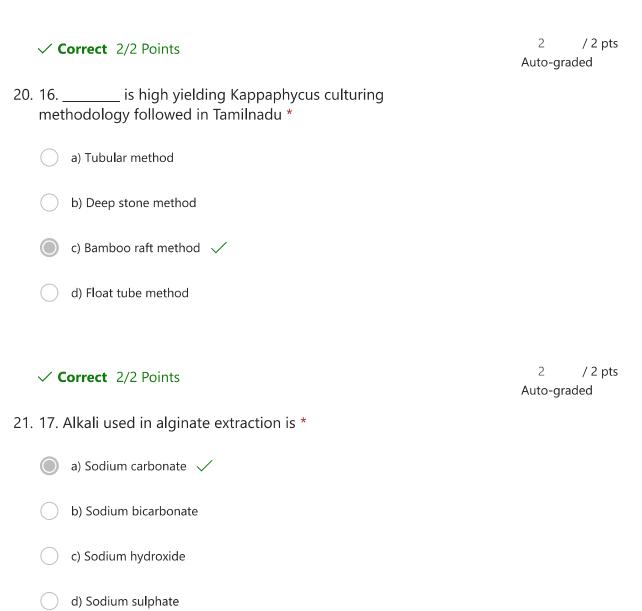
c) Fssai certificate

) d) Halal certificate



- 🔵 b) Micropropagation 🗸
- 🔵 c) PTC

d) Cell line culture



### ✓ **Correct** 2/2 Points

- 22. 18. Strong Agar is extracted from \*
  - 🔵 a) Gelidium Sp 🗸



) c) Gracilaria Sp

) d) Sargassum Sp



23. 19. On raft cultivation distance between two seedling rope should be \_\_\_\_\_\_\*

🔵 a) 6 inches 🗸

b) 12 inches

c) 3inches

d) 24 inches

✓ **Correct** 2/2 Points

2 / 2 pts Auto-graded

2

Auto-graded

/ 2 pts

24. 20. Cultivation period of kappaphycus sp on raft will last for \_\_\_\_\_ days \*

🔵 a) 55

🔵 b) 45 🗸

c) 65

) d) 35

### X Incorrect 0/2 Points

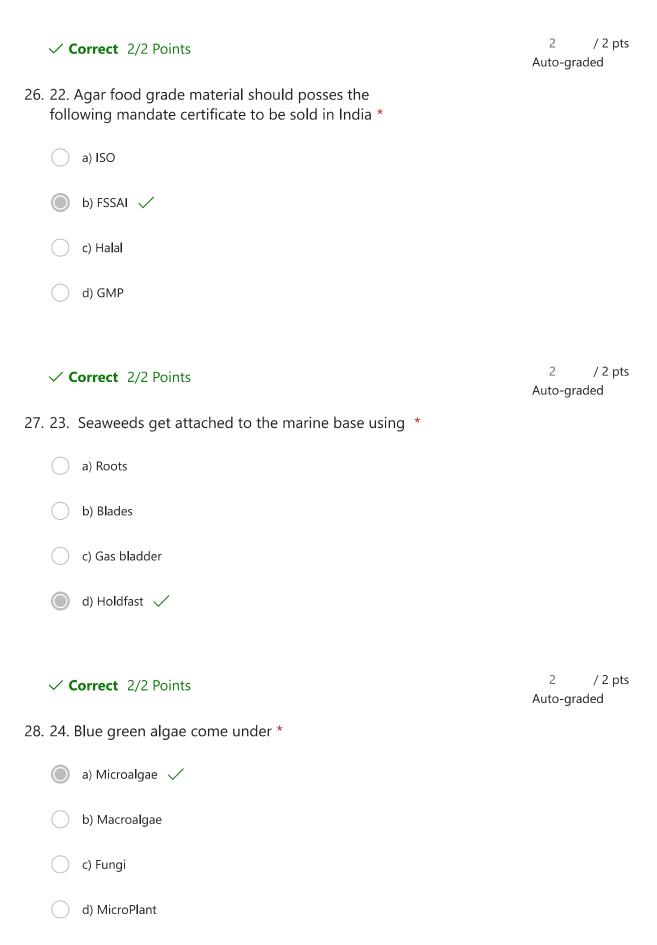
25. 21. Widely seaweeds are rich in \_\_\_\_\_\_\*

a) Vitamins

b) Proteins

) c) Minerals

) d) Carbohydrate 🗸



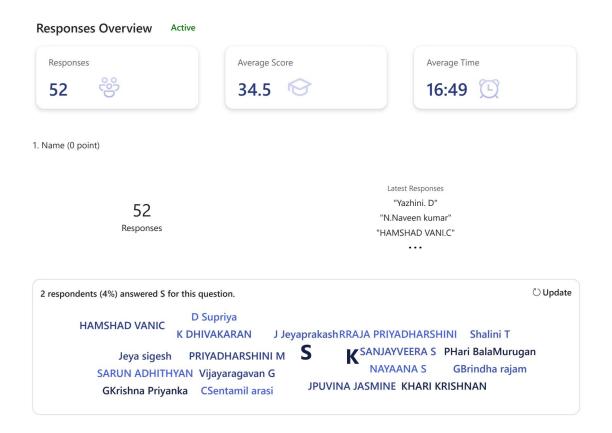
### ✓ **Correct** 2/2 Points

2 / 2 pts Auto-graded

- 29. 25. Local name of Turbeneria Sp seaweed \*
  - 🔵 a) Kattai korai
  - 🔵 b) Malli korai
  - ) Pepsi paasi
  - 🔵 d) Pakoda paasi 🗸

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

HoD/BT Dr R.Shyam Kumar



2. Roll Number (23UBT0..) (0 point)

52 Responses	Latest Responses "23ubt038" "23UBT042" "23UBT003"
23UBT025 23UB1014	C Update 23UBT049 23UBT018 23UBT026 23UBT021 UBT054 23UBT029 23UBT007 23UBT028 23UBT041 23uBT044

3. Register Number (9204232140..) (0 point)

52	"920423214031"
<sub>Responses</sub>	"920423214012"
Responses	"920423214012"

1 respondents (2%) answered 28 for this question.		🖰 Update
920423214003	 <sup>6</sup> 920423214042 <sup>14002</sup> 920423214001	021

4. Date of Examination (0 point)

	"2025-01-25" "2025-01-25"
Responses "2025-01-25"	
Responses	

5. 1. SRC stands for (2 points)

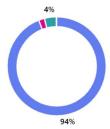
85% of respondents answered this question correctly.





6. 2. Green algae are abundant in (2 points)





7. 3. Spot the non-native seaweed of India (2 points)

90% of respondents answered this question correctly.

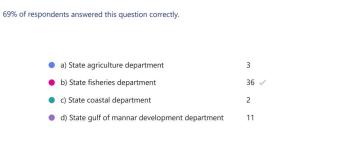


8. 4. Central nodel institute working on algal research (2 points)

90% of respondents answered this question correctly.

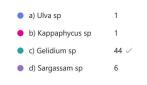


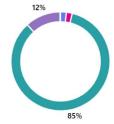
9. 5. Model agar and carrageenan extraction unit at mandapam Tamilnadu was governed under (2 points)





10. 6. Agar Agar was extracted from (2 points)





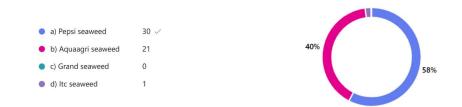
11. 7. Spot the High protein algae (2 points)

2% of respondents answered this question correctly.

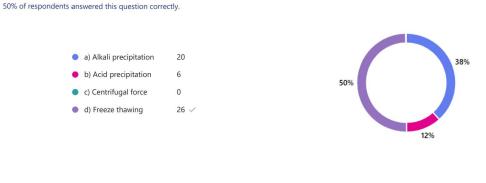


12. 8. Kappaphycus seaweed is also termed us \_\_\_\_\_\_, based on its patent. (2 points)

58% of respondents answered this question correctly.

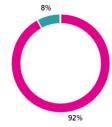


13. 9. Agar recovery from red algae extract gel is done by (2 points)



14. 10. E406 was assigned to (2 points)

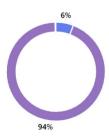




15. 11. If Agar was value added for Islamic population , it should be mandatorily (2 points)

94% of respondents answered this question correctly.





16. 12. Product to be sold among jew people should hold (2 points)

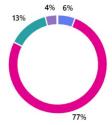
87% of respondents answered this question correctly. a) Kosher certificate 45 🗸 b) ISO certificate 6 • c) Fssai certificate 1 • d) Halal certificate 0 17. 13. ISO for food products \_\_\_\_\_ (2 points) 92% of respondents answered this question correctly. a) ISO 14000 2 b) ISO 22000 48 🗸 • c) ISO 12000 0 d) ISO 9001 2





18. 14. Alginates are extracted by (2 points)





19. 15. Kappaphycus seaweed seeds are developed using (2 points)

17% of respondents answered this question correctly.

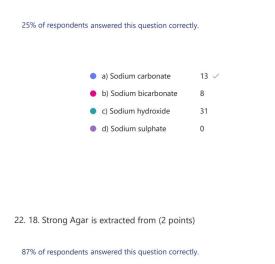


20. 16. \_\_\_\_\_ is high yielding Kappaphycus culturing methodology followed in Tamilnadu (2 points)

94% of respondents answered this question correctly.

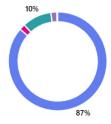


#### 21. 17. Alkali used in alginate extraction is (2 points)









23. 19. On raft cultivation distance between two seedling rope should be \_\_\_\_\_\_ (2 points)

10% of respondents answered this question correctly.

		4% 10%
		17%
<ul> <li>a) 6 inches</li> </ul>	5 🗸	
• b) 12 inches	36	
• c) 3inches	9	
• d) 24 inches	2	
		69%

24. 20. Cultivation period of kappaphycus sp on raft will last for \_\_\_\_\_ days (2 points)

81% of respondents answered this question correctly.

•	a) 55	9
•	b) 45	42 🗸
•	c) 65	1
•	d) 35	0

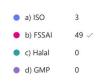


25. 21. Widely seaweeds are rich in \_\_\_\_\_ (2 points)

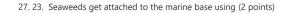
23% of respondents answered this question correctly.

		8%
		23%
<ul> <li>a) Vitamins</li> </ul>	4	
b) Proteins	15	29%
<ul><li>c) Minerals</li></ul>	21	
<ul> <li>d) Carbohydrate</li> </ul>	12 🗸	
		40%

26. 22. Agar food grade material should posses the following mandate certificate to be sold in India (2 points)







98% of respondents answered this question correctly.

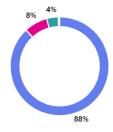
<ul><li>a) Roots</li></ul>	1
b) Blades	0
<ul> <li>c) Gas bladder</li> </ul>	0
<ul> <li>d) Holdfast</li> </ul>	51 🗸



28. 24. Blue green algae come under (2 points)

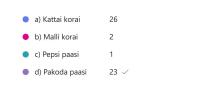
88% of respondents answered this question correctly.





29. 25. Local name of Turbeneria Sp seaweed (2 points)

44% of respondents answered this question correctly.





J. Shuf. Zuns

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

HoD/BT Dr R.Shyam Kumar

DATE : NAME: S. HARIPRASATH Rollno: 23UBT002 Register no: 920423214015 Program Name: Algal technology and Applications Duration of the program - 06/01/20 - 10/01/25 Title Report on value added course 7/10

on the second day we were given the insight of the commerce of the seaweed industry. after the theory session, afternoon we headed to the lab to extract agar from the seawerd called sargassion, with the guidance of sesource person we created the agar extract and let it to dry for a day for again soduer algorate on pay 3, we were taken to rameshwarran, CESR lab where we learnh about the research orgoing on sea were by indian government, then we headed to a coast where the nesource porson teached us now to do seaw coldar, and cultivation. On Day 4, we were taught to extract value dddroor products and with the extracted agars we proceeded to do the seawed based product

The value added course based or algal technology & organized by department of biotechnology was really informative and gave a clear outsight on this particular domain in the bioteck area. This gave an idea on how the impact of Seawced and algal technology is on our world. This was an five day course which souted off with the ar intooductor to algae and its classifications on the afternoon of Pay 1 we got an idea about the process of a seawed is culturated and now the business is done in this volustry

REPORT ON VALUE ADDED COURSE : ALGAL TECH NOLOGY

NAME: A. JEYA SUGAESH ROLL NO: 23UBTOIN REG NO: 920423214020 PROGRAM NAME: BIO-TECHNOLOGY

ORGANIZED BY DEPARTMENT OF BIOTECHNOLOGY DURATION: JANUARY 6,2025 TO JANUARY 10,2025 MODE OF DELIVERY ! OFFLINE

Our department of bio-technology Organized a five days value added course on the algal technology, focusing on the innovative applications of algae in Vorious industries duch as bio-fuels, Pharmaeticals and environmental management. This Course is to get an idea of technological advancement and dustainable potential at algal System

On day, we started with an another Program with all own department digge. And the first day of dames were fully handled by Art. selva kinner de the is an expert in algae field and algae alter field. On first day we least also

on day &, we alterted own journey with Mr. jessudos dir who is surrig er company called dealform. And he is a convienced export in the algas field. He tough us about the types of algoe and which fields they have been used and Ro methods of cultivation and afternoon we had a practical deriver and we worked on algae on us own and we extracted again again. day s we went for an IV to oromethwonan and there we interacted with the exports and Dr. Direch kuman decentist everhing on algae gield in central government. and the we went to the algae cultivation area and we Ends explored many useful things. on day is we ashould develope a product on algae with the things we karned from the yolus added counce. and we whenly deply

it .

### Report on Value Added Course

Name: Elakiya Roll no: 23ubt007 Register no.: 920423214010 Program Name: Algal Technology and Applications Duration : 5 days DATE : 10.01. 2025.

Algal Technology and Applications. Day 1 On January 6th, the course began with the quidance of the people from the industry itself. A brief and clean introduction to algae was provided with the help of the industry people. The speakers were from the Postherices adjace companies all the way from Ramanathapuram. The first day started with a proper inaugral session and a basic. overview of algae and it's types was given. Day 2 In the second day of the course, more deep concepts were discussed regarding algae technology and the methods of cultivation, production and commercialized. More generalised and real-world discussions were included with the information of how along various types of seaweed are extracted and med in business across India.

On January 8th, we were able to experience and understand the whole situation in an industry. Visiting the places the government provided for research purposes were really helpful. Meeting people working in the field of seawerd production. The schedule also included the session of learning the basic concept of the 'raft' method of cultivating seaweeds. The marine algal research station in Ramanathapuram also provided a bot of current informations.

Day 4 on the 9th of January, we worked practically in laboratory with the seawed samples. Experimented with a simple protocol of extraction from different seawceds. Most extraction from different seawceds. Most importantly, it made it casy to learn the importantly is algae in various fields like applications of algae in various fields like about the blooming technology and its applications.

## VALUE ADDED COURSE ALGIAL TECHNOLOGY AND APPLICATIONS.

DATE

: 10.01.2025

: Hamsted vani. c

NAME

ROLL NO

RE GUSTER NO

PROURAM NAME

TITLE :

: 280 BT 003

: 920 42321 4012

: Algal technology & applications

Report on value added course.

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The value colded course is a credit based course. Discussing on the topic of Algal technology 1 seaweed. It's a 5-day course.

Dayl: In the first day, inaugnation of the course has started and introduction of algre and seaweed has been taught by the projessons. Basic information and creneral knowledge about the maeroalgare. has been bright explained by one.

Day 2: In the second day the process of extraction of seaweed has been explained. Different types of seaweed extraction has been taught by the projessor who is also the ewner of sead farm company. In afternoon, hards - on - session. orgarding to the extraction of seaweed. we're performed in the haboratory. Teams were formed. and extraction of. Agar, sodium alginate, caser genan were. performed.

Day 2: On the 2 rd Day, field trip were. conducted to sameswaran to known about. The knowledge of seedling the seaweed. and havresting the seaweed. On the journey. we were taken to the CSMCRI center about marine. algal technology. to known about the depth of marine. technology and we visited etre fishery. department were we saw the small siale formentor, centriquiging versel and færre and doy compastment. Day a: paper presentation, Advertisment, poduets, poster making were made using seaweed extracted. threkening agents such as agas, 60 dium algérate and caargeran and presented Pryront of . Dignitaries Day A ! On the 4th day, product improvement ideas, effers related to seaweed and company effers related to seawced were discussed

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Report on value added program

Date: 10.1.25 Name: Apouna Roll no: 230BT009 Register no: 920423214003 program name: Algal technolognology and application the Druration of the program: January 6,2025 - January 10,2025 Introduction:

The value added program on algae technology offered an in-depth exploration into the cultivation, processing and product development of algae & seaweed. Spanning. 5 days, this program combined theoretical learning with practical experiences, emphasing algae's potention as a sustainable resource in various industries, pharmaceuticals, food and biotechnonology.

Day 1 :

Introduction to salgae sechnology with an overview of algae technology, including its classification of applications across different fields. We were introduced to the increasing global demand for algae, its resource development and its diverse uses in Sectors like biofuels, food Products & cosmetics. A grecial focus was placed on the different types of algae, such as chlorophyta & phaeophycae, & 2 primæry methods of cultivation: Indoor & outdoor. It also highlighted the environmental sustainability & algae & its role in adressing global resource challanges.

Day 2'.

On the second day, we delved into the realth of Seaweed, common diseases affecting algae and the current research on algae in india. The day included a detailed explanation of specific algae types like chlorophyta & phaeophyceae. We explored the extraction process of alginate, a substance derived beform algae with various applications in food, medicine & industry The hands on training session involved processing algae into agan, providing practical insight into transforming raw algae into valuable products. Day 3 :

The third day book is to Rameshwaram for field training. First, we went to CSMCR for the Raboratory awareness on algae, and at research institute they gave us how to grow algae in 600 conditions. We explored two different cultivation at Rameshwaram & interacted with local formers & field experts & we did everything by own hand for more knowledge. The visit gave us a deeper understanding of the challenges & techniques involved in cultivating algae in realworld settings. The saw many different edgae and learnet more about it.

Day 4: On the fourth day, we engaged in an interactive Session where we learned how to convert algae into value-added products, particularly focussing on agas. We discussed various product ideas 4 brissiness models for algae-based products & received guidance on obtaining company approvals for these products. This session encouraged creative thinking, & we brainstormed various innovative ways algae could be utilised in everyday products from food to cosmetics.

Day 5:

The final day culminated in a presentation of own group projects to the program's secretary & principal. We showcased our ideas & demonstrated how algae can be used to create ralgae to value added products. The feed back & discussion provided valuable insights into the commercial potential of algae - based products. This day "reinforced the importance of algae as a sustainable resource of motivated us to explore its applications further in orion but use endeavors. This value added program on algae technology provided invaluable knowledge & practical experience. It broadered our understanding of algae's diverse application & its potential to drive innovation in various industries

Report on value added course.

Name: K. Yamura

ROLLNO: 23UBTOOB

Register NO: 920423214051

Pologorann Name: Algal Technology and Research.

Duration of the program: 6th \_ 10th January [6.01.25 - 10.01.25] Sdays Date: 10.01.25

Introduction:

The course value added Program has done by our department (Biotechnology) management. for 5 days Its the program to understand the diverse applications.one of the coreer based course with good aim to bringent the students Skills in the field of Algal Biotechnology. with pratical skills and research insights. Day 1: 6th Jan 25.

The program Storts with an wonderful inaugral with our respective Staff (our deportment chairporson, HOD, and respective man) and the diguitaries from the industry and they explained the importance of deal biotechnology and their knowledge and express the current Scenario in that field.

They stort with Introduction and they courred the topic's such as type of Algae and their classification and characteristics and different method.

Day 2: 7th Jan 25

They explained about the cultivation strategies of seavageds and their applications. The session couved with extraction and processing and the applications of national bio-polymens from sea weaks They provide us hands on training to extract and processing on using seaweeds. Day 3: 8th Jan 25

Discussions on Algal - based biofuels, nutraceuticals, and biophastics. The perocessing and extractions of biophymens from seaweds.

The session covored the value addition & commerce aspect of seaweeds.

Dary 4: 9th James

OUDTVIEW of COUTSE We attended and learn The latest development and challenges going on the field. Dementerations of Algal DNA exteraction and molecular Analysis.

Day 5: 10th Jam 25

Entrepreneurship opportunities in Algal Biotechnology. Business and challenges facing opportunities. Scaling & commercialisation of Algae - based product. condusion:

Those 5-days of our value-Added program on Algae Biotechnology Successfully achieved objectives of enhancing accorness, Fnowledge & pratical skills in the field. well organised program with hards on

training and made us to think and do the Innovative version of new product using Ager Agar and sustainability.

Thankyou for all the management staff

who argonised the wonderful opportunities.



6.P.O.C. Nasari H. Vetalularis - 6.221 To 1 (Secar VIRUDHUNAGAR)

Industry Certified Value Added Programme

On

### ALGAL TECHNOLOGY AND APPLICATIONS

6th to 10th January 2025

Department:

Biotechnology

Regulation: R2021

Year:

2024-25

Semester: Even

CONSOLIDATED MARK STATEMENT

S.No.	Reg Number	Roll Number	Student Name	Internal Marks- Project	External Marks- Test	Total Marks
			Marks alloted	40	60	100
1	920423214025	23UBT001	LALITH RAJ B	30	53	83
2	920423214015	23UBT002	HARIPRASATH S	31	0	31
3	920423214012	23UBT003	HAMSHAD VANI C	39	53	92
4	920423214047	23UBT004	VIJAYA RAGAVAN G	34	53	87
5	920423214033	23UBT006	PORSELVAN.S.G	34	48	82 -
6	920423214010	23UBT007	ELAKIYA S R	37	53	90
7	920423214051	23UBT008	YAMUNA K	39	51	90
8	920423214003	23UBT009	APARNA S	40	48	88
9	920423214050	23UBT010	VIVEHA BALA S	39	48	87
10	920423214020	23UBT011	JEYA SUGESH A	34	53	87
11	920423214034	23UBT012	PRIYADHARSHINI M	39	48	87
12	920423214044	23UBT013	SWETHA S	39	55	94
13	920423214039	23UBT014	ROSHINIS	38	51	89
14	920423214041	23UBT015	SENTAMIL ARAS C	36	48	84
15	920423214005	23UBT016	ATCHIAH S	36	46	82
16	920423214053	23UBT017	YAZHINI G	40	46	86
17	920423214048	23UBT018	VIMALA I	31	51	82
18	920423214046	23UBT019	VEERALAKSHMI V	38	48	86
19	920423214018	23UBT020	JEEVAASRI S B	39	46	85
20	920423214032	23UBT021	NAYAANA.S	38	43	81
21	920423214013	23UBT022	HARI BALAMURUGAN P	34	48	82
22	920423214023	23UBT023	KAVIYASREE M	38	46	84
23	920423214004	23UBT024	ARUN ADHITHYAN S	34	51	85
24	920423214035	23UBT025	PUVINA JASMINEJ	37	43	80
25	920423214027	23UBT026	MARISHA CHRISTINE STISHA I	37	46	83
26	920423214021	23UBT027	KARANYA N	38	43	81
27	920423214042	23UBT028	SHALINI T	37	46	83
28	920423214036	23UBT029	RAJA PRIYADHARSHINI R	30	50	80
29	920423214029	23UBT030	MUKILA K	36	46	82
30	920423214001	23UBT031	AKSHAYA R B	38	48	86
31	920423214038	23UBT032	RATHI K P	36	51	87
32	920423214011	23UBT033	GOWTHAM RAJ R	32	51	83
33	920423214043	23UBT034	SUPRIYA D	36	51	87



8.P.O. Classical Madar - C. Nagament Compare 5.P.O.C. Naga: N. Uklashings - ECS FUL Press: VIRUDHUNAGAR

Industry Certified Value Added Programme

On

### ALGAL TECHNOLOGY AND APPLICATIONS

6th to 10th January 2025

			oth to 10th January 20.	25		
	Department:	Biotechnology		Regulation:	R2021	
	Year:	2024-25		Semester:	Even	
34	920423214030	23UBT035	NAGALAKSHM S	39	41	80
35	920423214006	23UBT036	BRINDHA RAJA G	31	50	81
36	920423214016	23UBT037	HEMANTH PRAKASH M	30	50	80
37	920423214052	23UBT038	YAZHINI D	38	48	86
38	920423214045	23UBT039	SYED SIRAJUTHEEN M	33	53	86
39	920423214008	23UBT040	DHIVAKARAN K	30	50	80
40	920423214040	23UBT041	SANJAYVEERA S	30	51	81
41	920423214031	23UBT042	NAVEEN KUMAR N	30	50	80
42	920423214002	23UBT043	ANANTHA RAJ J	30	50	80
43	920423214014	23UBT044	HARI KRISHNAN K	32	53	85
44	920423214024	23UBT045	KRISHNA PRIYANKA G	37	51	88
45	920423214009	23UBT046	DHIVYA M	39	43	82
46	920423214007	23UBT047	DHARSHINI K	36	51	87
47	920423214037	23UBT048	RAKSHANA K	39	51	90
48	920423214019	23UBT049	JEYA PRAKASH J	31	51	82
49	920423214017	23UBT050	JANANI S	32	50	82
50	920423214028	23UBT051	MOHANRAJ K	34	48	82
51	920423214049	23UBT052	VISHWAPRIYA V	36	51	87
52	920423214022	23UBT053	KARISHMA M	39	48	87
53	920423214026	23UBT054	MAHESH S	31	50	81

Coordinator

Dr K.Geetha

Dr S.Karthikumar

Dr R.Shyam Kumar

page

Sea2Farm, Ramanathapuram Mr. R.P.Rajadurai Jesudoss

HoD/BT

Dr R.Shyam Kumar

	Total	50	44			0.1	F				282	)		an	( in	
	Model explanation	10	91				01				9	0		X	N's	Z
	Team work	10	co			-	2				4	t				
	Creativity/ Uniqueness	10	0			1	0				9	0			$\bigcirc$	
Kumar	Presentation	10	80			5					L			- Ar	Leumar	
r & Dr R.Shyam	Concept clarity Presentation	10	80			0					90			le lle	M. P. L. Lerman	JEINE
6th to 10th January 2025 Dr K.Geetha, Dr S.Karthikuma	Topic		sarpusum p white feed	Agan - Agar Bobartea	2.2	OUC	Sage			Ager .	Naturals		(	and and a	M)	
6th to 10th January 2025 Programme Coordinator - Dr K.Geetha, Dr S.Karthikumar & Dr R.Shyam Kumar	Name		VIJaya regavar Porselven Mohan raj	23UBTO 24 Aren Adhatura 23UBTO 11 JEye Algan	N.Kazanya K.Rakshana		Magalakshimi.S	yomuna . K	T vi molo	C	S. Jonani	timbre manual in scor aner		A A	and it is	
Programn	Roll No		23067004 23067006 23067061 23087022	23UBTO 24	23UBT027 53UBTD18	230,87010	23 VB TD35	23UB T008	8 101012 -	23467029	23187050	achiquet		N.	olt us	
	Team No.		1				2				6			V	3/2	
	SI No		-													

30

9

New VIP, UDHUNAGAR).

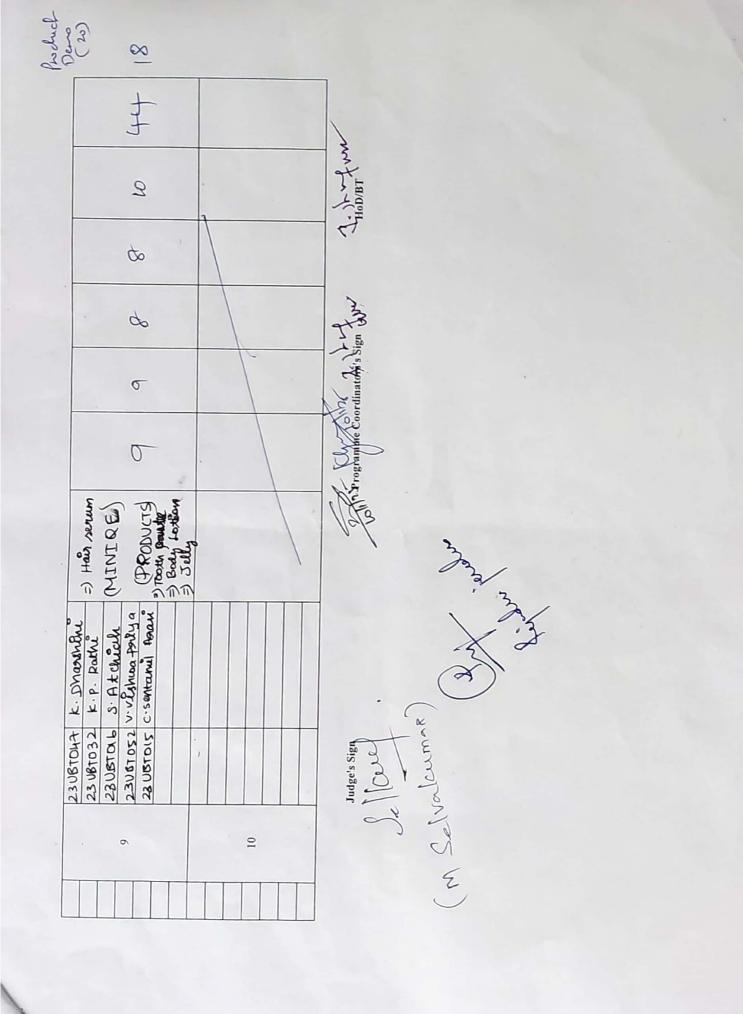
# DEPARTMENT OF BIOTECHNOLOGY Industry Certified Value Added Course on "ALGAL TECHNOLOGY AND APPLICATIONS"

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	2 BURTON2	33	and	11	14	20	4	2	5	15
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B.P.G. Chidamiliara Nader - C.Nagammat Gampus 5.P.G. D. Nagar, H. Vellakulam - 625 701 (Near VIRUDHUNAGAR).

Industry Certified Value Added Programme

on

### ALGAL TECHNOLOGY AND APPLICATIONS

6th to 10th January 2025

Department: Biotechnology Year: 2024-25

INTERNAL MARK STATEMENT

Regulation: R2021 Semester: Even

S.No.	Reg Number	Roll Number	Student Name	Report Writing	PPT Presenta tion	Product Demonstrat ion	Total Marks
			Marks	10	10	20	40
1	920423214025	23UBT001	LALITH RAJ B	8	7	15	30
2	920423214015	23UBT002	HARIPRASATH S	7	8	16	31
3	920423214012	23UBT003	HAMSHAD VANI C	9	10	20	39
. 4	920423214047	23UBT004	VIJAYA RAGAVAN G	8	8	18	34
5	920423214033	23UBT006	PORSELVAN.S.G	8	8	18	34
6	920423214010	23UBT007	ELAKIYA S R	8	10	19	37
7	920423214051	23UBT008	YAMUNA K	10	9	20	39
8	920423214003	23UBT009	APARNA S	10	10	20	40
9	920423214050	23UBT010	VIVEHA BALA S	10	9	20	39
10	920423214020	23UBT011	JEYA SUGESH A	8	8	18	34
11	920423214034	23UBT012	PRIYADHARSHINI M	10	9	20	39
12	920423214044	23UBT013	SWETHA S	9	10	20	39
13	920423214039	23UBT014	ROSHINIS	8	10	20	38
14	920423214041	23UBT015	SENTAMIL ARAS C	9	9	18	36
15	920423214005	23UBT016	ATCHIAH S	9	9	18	36
16	920423214053	23UBT017	YAZHINI G	10	10	20	40
17	920423214048	23UBT018	VIMALA I	8	7	16	31
18	920423214046	23UBT019	VEERALAKSHMI V	9	10	19	38
19	920423214018	23UBT020	JEEVAASRI S B	10	10	19	39
20	920423214032	23UBT021	NAYAANA.S	9	10	19	38
21	920423214013	23UBT022	HARI BALAMURUGAN P	8	8	18	34
22	920423214023	23UBT023	KAVIYASREE M	9	10	19	38
23	920423214004	23UBT024	ARUN ADHITHYAN S	8	8	18	34
24	920423214035	23UBT025	PUVINA JASMINEJ	8	10	19	37
25	920423214027	23UBT026	MARISHA CHRISTINE STISHA J	8	10	19	37
26	920423214021	23UBT027	KARANYA N	9	9	20	38
27	920423214042	23UBT028	SHALINI T	8	10	19	37
28	920423214036	23UBT029	RAJA PRIYADHARSHINI R	7	7	16	30
29	920423214029	23UBT030	MUKILA K	7	10	19	36
30	920423214001	23UBT031	AKSHAYA R B	9	10	19	38
31	920423214038	23UBT032	RATHI K P	9	9	18	36
32	920423214011	23UBT033	GOWTHAM RAJ R	8	8	16	32
33	920423214043	23UBT034	SUPRIYA D	7	10	19	36
34	920423214030	23UBT035	NAGALAKSHM S	10	9	20	39
35	920423214006	23UBT036	BRINDHA RAJA G	8	7	16	31



Childamhara Naslar - C.Nagammal Campus K.Vallakulam - 625 701 (Near VIRUDHUNAGAR).

Industry Certified Value Added Programme

on

### ALGAL TECHNOLOGY AND APPLICATIONS

			y 2025	TIONS			
	Department: Year:	Biotechnology 2024-25				Regulation: Semester:	R2021 Even
			INTERNAL MARK STATEM	ENT		Semester.	Liven
S.No.	Reg Number	Roll Number	Student Name	Report Writing	PPT Presenta tion	Product Demonstrat ion	Total Marks
37	920423214052	23UBT038	YAZHINI D	9	9	20	38
38	920423214045	23UBT039	SYED SIRAJUTHEEN M	9	8	16	33
39	920423214008	23UBT040	DHIVAKARAN K	8	7	15	30
40	920423214040	23UBT041	SANJAYVEERA S	8	7	15	30
41	920423214031	23UBT042	NAVEEN KUMARN	8	7	15	30
42	920423214002	23UBT043	ANANTHA RAJ J	8	7	15	30
43	920423214014	23UBT044	HARI KRISHNAN K	8	8	16	32
44	920423214024	23UBT045	KRISHNA PRIYANKA G	8	10	19	37
45	920423214009	23UBT046	DHIVYA M	10	10	19	39
46	920423214007	· 23UBT047	DHARSHINI K	9	9	18	36
47	920423214037	23UBT048	RAKSHANA K	10	9	20	39
48	920423214019	23UBT049	JEYA PRAKASH J	9	7	15	31
49	920423214017	23UBT050	JANANI S	9	7	16	32
50	920423214028	23UBT051	MOHANRAJ K	8	8	18	34
51	920423214049	23UBT052	VISHWAPRIYA V	9	9	18	36
52	920423214022	23UBT053	KARISHMA M	9	10	20	39
53	920423214026	23UBT054	MAHESH S	7	8	16	31

a Evaluator Extern Mr. R.P.Rajadurai Jesudoss, Manager, Sea2Farm,

Ramnadapuram

VAP Coordinators

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

HoD

Dr R.Shyam Kumar

			on			
		ALG	AL TECHNOLOGY AND AP		ONS	
	Department:	Biotechnology	6th to 10th January 2025	5	Regulation:	R2021
	Year:	2024-25			Semester:	Even
		EXTER	NAL EVALUATION MARK STAT	EMENT		
S.No.	Reg Number	Roll Number	Student Name	Exter	nal Marks	%
			Marks	Conducted for 50	Converted to 60	100
1	920423214025	23UBT001	LALITH RAJ B	44	53	88
2	920423214015	23UBT002	HARIPRASATH S	0	0	0
3	920423214012	23UBT003	HAMSHAD VANI C	44	53	88
4	920423214047	23UBT004	VIJAYA RAGAVAN G	44	53	88
5	920423214033	23UBT006	PORSELVAN.S.G	40	48	80
6	920423214010	23UBT007	ELAKIYA S R	44	53	88
7	920423214051	23UBT008	YAMUNA K	43	51	85
8	920423214003	23UBT009	APARNA S	40	48	80
9	920423214050	23UBT010	VIVEHA BALA S	40	48	80
10	920423214020	23UBT011	JEYA SUGESH A	44	53	88
11	920423214034	230BT011 23UBT012	PRIYADHARSHINI M	40	48	80
12	920423214044	23UBT013	SWETHA S	46	55	92
12	920423214044	23UBT014	ROSHINIS	43	53	85
14	920423214041	230BT011	SENTAMIL ARAS C	40	48	80
15	920423214041	23UBT016	АТСНІАН S	38	46	77
15	920423214003	23UBT017	YAZHINI G	38	46	76
17	920423214048	23UBT018	VIMALA I	43	51	85
18	920423214046	23UBT019	VEERALAKSHMI V	40	48	80
19	920423214018	23UBT020	JEEVAASRI S B	38	46	77
20	920423214010	23UBT020	NAYAANA.S	36	43	72
20	920423214032	23UBT022	HARI BALAMURUGAN P	40	48	80
22	920423214013	23UBT022	KAVIYASREE M	38	46	76
22	920423214023	23UBT024	ARUN ADHITHYAN S	43	51	85
23	920423214004	230BT024 23UBT025	PUVINA JASMINEJ	36	43	72
24	920423214033	23UBT025	MARISHA CHRISTINE STISHA J	38	45	76
26	920423214027	230BT020 23UBT027	KARANYA N	36	40	70
20	920423214021 920423214042	23UBT027 23UBT028	SHALINI T	38	45	72
27	920423214042	23UBT028 23UBT029	RAJA PRIYADHARSHINI R	42	50	83
28	920423214030	23UBT029 23UBT030	MUKILA K	38	46	76
30	920423214029	23UBT030	AKSHAYA R B	40	40	80
31	920423214038	23UBT032	RATHI K P	43	51	85
32	920423214011 920423214043	23UBT033	GOWTHAM RAJ R SUPRIYA D	43	51	85
33		23UBT034		43	51	85
34	920423214030	23UBT035	NAGALAKSHM S	34	41	68
35	920423214006	23UBT036	BRINDHA RAJA G	42	50	83
36	920423214016	23UBT037	HEMANTH PRAKASH M	42	50	83
37	920423214052	23UBT038 23UBT039	YAZHINI D SYED SIRAJUTHEEN M	40	48	80
38	920423214045			44	53	88
39	920423214008	23UBT040	DHIVAKARAN K	42	50	83
40	920423214040	23UBT041	SANJAYVEERA S	43	51	85
41	920423214031	23UBT042	NAVEEN KUMARN	42	50	83
42	920423214002	23UBT043	ANANTHA RAJ J	42	50	83
43	920423214014	23UBT044	HARI KRISHNAN K	44	53	88
44	920423214024	23UBT045	KRISHNA PRIYANKA G	43	51	85
45	920423214009	23UBT046	DHIVYA M	36	43	72
46	920423214007	23UBT047	DHARSHINI K	43	51	85
47	920423214037	23UBT048	RAKSHANA K	43	51	85
48	920423214019	23UBT049	JEYA PRAKASH J	43	51	85
49	920423214017	23UBT050	JANANI S	42	50	83
50	920423214028	23UBT051	MOHANRAJ K	40	48	80
51	920423214049	23UBT052	VISHWAPRIYA V	43	51	85
52	920423214022	23UBT053	KARISHMA M	40	48	80



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6.P.O. Chadambare Natar - C. Negammel Campus 6.P.O. Chadambare Natar - C. Negammel Campus

Industry Certified Value Added Programme

On

### ALGAL TECHNOLOGY AND APPLICATIONS

6th to 10th January 2025

Department:

Biotechnology

Regulation: R2021

Year:

2024-25

Semester: Even

GRADE SHEET

S.No.	Reg Number	Roll Number	Student Name	Internal Marks- Project	External Marks- Test	Total Marks	Credit points
			Marks alloted	40	60	100	2
1	920423214025	23UBT001	LALITH RAJ B	30	53	83	2
2	920423214015	23UBT002	HARIPRASATH S	31	0	31	0
3	920423214012	23UBT003	HAMSHAD VANI C	39	53	92	2
4	920423214047	23UBT004	VIJAYA RAGAVAN G	34	53	87	2
5	920423214033	23UBT006	PORSELVAN.S.G	34	48	82	2
6	920423214010	23UBT007	ELAKIYA S R	37	53	90	2
• 7	920423214051	23UBT008	YAMUNA K	39	51	90	2
8	920423214003	23UBT009	APARNA S	40	48	88	2
9	920423214050	23UBT010	VIVEHA BALA S	39	48	87	2
10	920423214020	23UBT011	JEYA SUGESH A	34	53	87	2
11	920423214034	23UBT012	PRIYADHARSHINI M	39	48	87	2
12	920423214044	23UBT013	SWETHA S	39	55	94	2
13	920423214039	23UBT014	ROSHINIS	38	51	89	2
14	920423214041	23UBT015	SENTAMIL ARAS C	36	48	84	2
15	920423214005	23UBT016	ATCHIAH S	36	46	82	2
16	920423214053	23UBT017	YAZHINI G	40	46	86	2
17	920423214048	23UBT018	VIMALA I	31	51	82	2
18	920423214046	23UBT019	VEERALAKSHMI V	38	48	86	2
19	920423214018	23UBT020	JEEVAASRI S B	39	46	85	2
20	920423214032	23UBT021	NAYAANA.S	38	43	81	2
21	920423214013	23UBT022	HARI BALAMURUGAN P	34	48	82	2
22	920423214023	23UBT023	KAVIYASREE M	38	46	84	2
23	920423214004	23UBT024	ARUN ADHITHYAN S	34	51	85	2
24	920423214035	23UBT025	PUVINA JASMINEJ	37	43	80	2
25	920423214027	23UBT026	MARISHA CHRISTINE STISHA J	37	46	83	2
26	920423214021	23UBT027	KARANYA N	38	43	81	2
27	920423214042	23UBT028	SHALINI T	37	46	83	2
28	920423214036	23UBT029	RAJA PRIYADHARSHINI R	30	50	80	2
29	920423214029	23UBT030	MUKILA K	36	46	82	2
30	920423214001	23UBT031	AKSHAYA R B	38	48	86	2
31	920423214038	23UBT032	RATHI K P	36	51	87	2.
32	920423214011	23UBT033	GOWTHAM RAJ R	32	51	83	2
33	920423214043	23UBT034	SUPRIYA D	36	51	87	2



B.P.D.C. Nagar, K. Velanden - ECT TOI Press VORUDHUNAGAR)

Industry Certified Value Added Programme

On

### ALGAL TECHNOLOGY AND APPLICATIONS

6th to 10th January 2025

	Department:	Biotechnology		Regulation:	R2021		
	Year:	2024-25		Semester:	Even		
34	920423214030	23UBT035	NAGALAKSHM S	39	41	80	2
35	920423214006	23UBT036	BRINDHA RAJA G	31	50	81	2
36	920423214016	23UBT037	HEMANTH PRAKASH M	30	50	80	2
37	920423214052	23UBT038	YAZHINI D	38	48	86	2
38	920423214045	23UBT039	SYED SIRAJUTHEEN M	33	53	86	2
39	920423214008	23UBT040	DHIVAKARAN K	30	50	80	2
40	920423214040	23UBT041	SANJAYVEERA S	30	51	81	2
41	920423214031	23UBT042	NAVEEN KUMARN	30	50	80	2
42	920423214002	23UBT043	ANANTHA RAJ J	30	50	80	2
43	920423214014	23UBT044	HARI KRISHNAN K	32	53	85	2
44	920423214024	23UBT045	KRISHNA PRIYANKA G	37	51	88	2
45	920423214009	23UBT046	DHIVYA M	39	43	82	2
46	920423214007	23UBT047	DHARSHINI K	36	51	87	2
47	920423214037	23UBT048	RAKSHANA K	39	51	90	2
48	920423214019	23UBT049	JEYA PRAKASH J	31	51	82	2
49	920423214017	23UBT050	JANANI S	32	50	82	2
50	920423214028	23UBT051	MOHANRAJ K	34	48	82	2
51	920423214049	23UBT052	VISHWAPRIYA V	36	51	87	2
52	920423214022	23UBT053	KARISHMA M	39	48	87	2
53	920423214026	23UBT054	MAHESH S	31	50	81	2

Coordinators

Dr K.Geetha

Dr S.Karthikumar

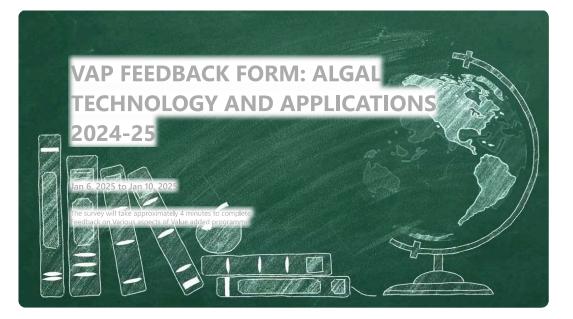
Dr R.Shyam Kumar

Sea2Farm, Ramanathapuram

Mr. R.P.Rajadurai Jesudoss

Z,h~f HoD/BT

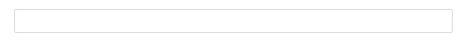
Dr R.Shyam Kumar



\* Required

### 1. Roll Number \*

### 2. Register Number \*



### 3. Name \*

:::

### 4. Date \*

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Feedback on General aspects of Value Added Programme

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

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

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

8. 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 \*

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

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

11. 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.

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

13. 9. Rate the infrastructure facilities provided to conduct the programme. \*

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

15. 11. Rate the Theory sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS \*

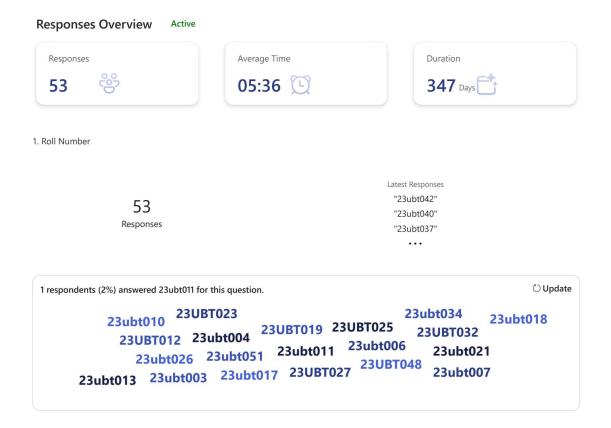
16. 12. Rate the basic Hands-on sessions handled for **ALGAL TECHNOLOGY AND APPLICATIONS** by Internal Resources. \*

17. 13. Rate the Industrial visit to Fisheries Department at Ramanathapuram and Seaweeds Industry \*

18. 14. Rate the Industrial training on Value addition and Commerce from Seaweeds. \*

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

Suggestions for Improvement	
20. 16. Write any two best features of the Value added program	me. *
21. 17. Write any two features that can be improved in the Value	e added programme. *
22. 18. Please give your valuable suggestions for the improvement	ent of the programme. *
This content is neither created nor endorsed by Microsoft. The data yo	ou submit will be sent to the form owner.
K-huths T. Shyam Kumar	HoD/BT Dr R.Shyam Kumar



2. Register Number

1 respondents (2%) answered 920423214020 for this question.	
	"924021234016"
Responses	"02402122401C"
53	"920423214008"
F.2	"920423214031"
	Latest Responses

 920423214010
 920423214010
 920423214053
 920423214035
 920423214034

 920423214027
 920423214017
 920423214020
 920423214033
 920423214012

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 920423214003
 920423214050
 920423214004
 920423214046
 920423214017

🖰 Update





4. Date

	Latest Responses
53	"2005-11-28"
	"2025-01-22"
Responses	"2005-09-27"
	•••

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



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







### VAP FEEDBACK FORM: ALGAL TECHNOLOGY AND APPLICATIONS 2024-25

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



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



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



11.7. 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.



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



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

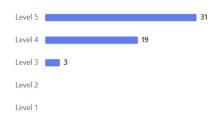


14. 10. The allotted time to complete the task given during the programme was sufficient



15. 11. Rate the Theory sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS





16. 12. Rate the basic Hands-on sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS by Internal Resources.



17. 13. Rate the Industrial visit to Fisheries Department at Ramanathapuram and Seaweeds Industry



18. 14. Rate the Industrial training on Value addition and Commerce from Seaweeds.

Time management

Time and field

Time period

duration of sessions

algae

seaweed

Industrial visit

hands

I ime

**Theory class** 



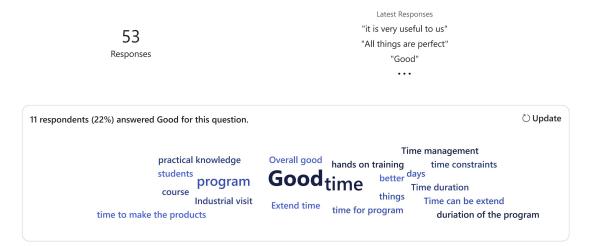
theory sessions

lab sessions

session<sub>time to make products</sub>

practical session Time allotment

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



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

HoD/BT Dr R.Shyam Kumar

### View results

Respondent 1 Anonymous



:::

### 1. Roll Number \*

23ubt011

### 2. Register Number \*

920423214020

### 3. Name \*

Jeya sugesh

### 4. Date \*

1/10/2025

Feedback on General aspects of Value Added Programme

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

 $\star$   $\star$   $\star$   $\star$ 

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

 $\star$   $\star$   $\star$   $\star$ 

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

 $\star$   $\star$   $\star$   $\star$ 

8. 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 \*

 $\star$   $\star$   $\star$   $\star$ 

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

 $\star \star \star \star \star$ 

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

 $\star$   $\star$   $\star$   $\star$ 

11. 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. \*

 $\star$   $\star$   $\star$   $\star$ 

### Feedback on Sessions

Give fair feedback on each session.

- 12. 8. Rate the course module and content of the Value added programme. \*
  - $\star$   $\star$   $\star$   $\star$   $\star$
- 13. 9. Rate the infrastructure facilities provided to conduct the programme. \*
  - $\star$   $\star$   $\star$   $\star$
- 14. 10. The allotted time to complete the task given during the programme was sufficient \*
  - $\star$   $\star$   $\star$   $\star$
- 15. 11. Rate the Theory sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS \*

 $\star$   $\star$   $\star$   $\star$ 

16. 12. Rate the basic Hands-on sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS by Internal Resources. \*

 $\star$   $\star$   $\star$   $\star$   $\star$ 

- 17. 13. Rate the Industrial visit to Fisheries Department at Ramanathapuram and Seaweeds Industry \*
  - $\star$   $\star$   $\star$   $\star$   $\star$
- 18. 14. Rate the Industrial training on Value addition and Commerce from Seaweeds. \*

 $\star$   $\star$   $\star$   $\star$ 

## Suggestions for Improvement

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

Got extra knowledge apart from our subject and got an awareness about algal technology

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

The duration for the course is insufficient

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

Only time constraints

nuf.

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

HoD/BT Dr R.Shyam Kumar

Respondent 12 Anonymous



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#### 1. Roll Number \*

23ubt003

#### 2. Register Number \*

920423214012

#### 3. Name \*

	1
Hamshad van I.C	

#### 4. Date \*

1/10/2025

Feedback on General aspects of Value Added Programme

- 5. 1. The programme provided an insight to apply the knowledge gained for development of a small scale industry. \*
  - $\star$   $\star$   $\star$   $\star$
- 6. 2. The programme provided an insight to identify and analyze simple solutions for industrial applications \*

 $\star$   $\star$   $\star$   $\star$ 

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

8. 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 \*

 $\star$   $\star$   $\star$   $\star$ 

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

 $\star \star \star \star \star$ 

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

 $\star$   $\star$   $\star$   $\star$ 

11. 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. \*

 $\star$   $\star$   $\star$   $\star$ 

### Feedback on Sessions

Give fair feedback on each session.

- 12. 8. Rate the course module and content of the Value added programme. \*
  - $\star$   $\star$   $\star$   $\star$   $\star$
- 13. 9. Rate the infrastructure facilities provided to conduct the programme. \*
  - $\star$   $\star$   $\star$   $\star$
- 14. 10. The allotted time to complete the task given during the programme was sufficient \*
  - $\star$   $\star$   $\star$   $\star$
- 15. 11. Rate the Theory sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS \*

 $\star$   $\star$   $\star$   $\star$ 

16. 12. Rate the basic Hands-on sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS by Internal Resources. \*

 $\star$   $\star$   $\star$   $\star$   $\star$ 

- 17. 13. Rate the Industrial visit to Fisheries Department at Ramanathapuram and Seaweeds Industry \*
  - $\star$   $\star$   $\star$   $\star$   $\star$
- 18. 14. Rate the Industrial training on Value addition and Commerce from Seaweeds. \*

 $\star$   $\star$   $\star$   $\star$ 

## Suggestions for Improvement

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

Field trip and hands - on - session

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

Theory class , ppt

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

Can give more info about jobs related to this course .... rest of the course is spectacular

J. Shuf.

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

.shu

HoD/BT Dr R.Shyam Kumar

Respondent	
23	Anonymous



:::

#### 1. Roll Number \*

23ubt034

#### 2. Register Number \*

920423214043

#### 3. Name \*

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	priva
-	

#### 4. Date \*

1/10/2025

Feedback on General aspects of Value Added Programme

- 5. 1. The programme provided an insight to apply the knowledge gained for development of a small scale industry. \*
  - $\bigstar \bigstar \bigstar \bigstar \bigstar$
- 6. 2. The programme provided an insight to identify and analyze simple solutions for industrial applications \*

 $\star$   $\star$   $\star$   $\star$ 

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

8. 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 \*

 $\star$   $\star$   $\star$   $\star$ 

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

 $\star \star \star \star \star$ 

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

 $\star$   $\star$   $\star$   $\star$ 

11. 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. \*

 $\star$   $\star$   $\star$   $\star$ 

### Feedback on Sessions

Give fair feedback on each session.

- 12. 8. Rate the course module and content of the Value added programme. \*
  - $\star$   $\star$   $\star$   $\star$   $\star$
- 13. 9. Rate the infrastructure facilities provided to conduct the programme. \*
  - $\star$   $\star$   $\star$   $\star$
- 14. 10. The allotted time to complete the task given during the programme was sufficient \*
  - $\star$   $\star$   $\star$   $\star$
- 15. 11. Rate the Theory sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS \*

 $\star$   $\star$   $\star$   $\star$ 

16. 12. Rate the basic Hands-on sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS by Internal Resources. \*

 $\star$   $\star$   $\star$   $\star$   $\star$ 

- 17. 13. Rate the Industrial visit to Fisheries Department at Ramanathapuram and Seaweeds Industry \*
  - $\star$   $\star$   $\star$   $\star$   $\star$
- 18. 14. Rate the Industrial training on Value addition and Commerce from Seaweeds. \*

 $\star$   $\star$   $\star$   $\star$ 

## Suggestions for Improvement

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

Understandable, informative

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

Extend Time and field visiting

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

Extend time

.shuf.

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

HoD/BT Dr R.Shyam Kumar

Respondent 27 Anonymous



:::

#### 1. Roll Number \*

23UBT036

#### 2. Register Number \*

920423214006

#### 3. Name \*

G.Brindha rajam	
	)

#### 4. Date \*

1/10/2025

Feedback on General aspects of Value Added Programme

- 5. 1. The programme provided an insight to apply the knowledge gained for development of a small scale industry. \*
  - $\star$   $\star$   $\star$   $\star$
- 6. 2. The programme provided an insight to identify and analyze simple solutions for industrial applications \*

 $\star$   $\star$   $\star$   $\star$ 

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

8. 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 \*

 $\star$   $\star$   $\star$   $\star$ 

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

 $\star \star \star \star \star$ 

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

 $\star$   $\star$   $\star$   $\star$ 

11. 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. \*

 $\star$   $\star$   $\star$   $\star$ 

### Feedback on Sessions

Give fair feedback on each session.

- 12. 8. Rate the course module and content of the Value added programme. \*
  - $\star$   $\star$   $\star$   $\star$   $\star$
- 13. 9. Rate the infrastructure facilities provided to conduct the programme. \*
  - $\star$   $\star$   $\star$   $\star$
- 14. 10. The allotted time to complete the task given during the programme was sufficient \*
  - $\star$   $\star$   $\star$   $\star$
- 15. 11. Rate the Theory sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS \*

 $\star$   $\star$   $\star$   $\star$ 

16. 12. Rate the basic Hands-on sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS by Internal Resources. \*

 $\star$   $\star$   $\star$   $\star$   $\star$ 

17. 13. Rate the Industrial visit to Fisheries Department at Ramanathapuram and Seaweeds Industry \*

 $\star$   $\star$   $\star$   $\star$   $\star$ 

18. 14. Rate the Industrial training on Value addition and Commerce from Seaweeds. \*

 $\star \star \star \star \star$ 

 $\star$   $\star$   $\star$   $\star$ 

## Suggestions for Improvement

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

We gained more practical knowledge and learned a lot about algae technology

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

Everything was good in this programme

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

Everything was good

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

HoD/BT Dr R.Shyam Kumar

Respondent 40 Anonymous



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#### 1. Roll Number \*

23UBT043

#### 2. Register Number \*

920423214002

#### 3. Name \*

	1
J Anantha rai	
	)

#### 4. Date \*

1/10/2025

Feedback on General aspects of Value Added Programme

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

 $\bigstar \bigstar \bigstar \bigstar \diamond$ 

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

 $\star \star \star \star \star \diamond$ 

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

 $\bigstar \bigstar \bigstar \bigstar \bigstar$ 

8. 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 \*

**★ ★ ★ ☆** 

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

★ ★ ★ ☆

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

 $\bigstar \bigstar \bigstar \bigstar \bigstar$ 

11. 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.

- 12. 8. Rate the course module and content of the Value added programme. \*
  - $\star$   $\star$   $\star$   $\star$
- 13. 9. Rate the infrastructure facilities provided to conduct the programme. \*
  - $\star$   $\star$   $\star$   $\star$
- 14. 10. The allotted time to complete the task given during the programme was sufficient \*
  - $\star$   $\star$   $\star$   $\star$
- 15. 11. Rate the Theory sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS \*

 $\star$   $\star$   $\star$   $\star$ 

16. 12. Rate the basic Hands-on sessions handled for ALGAL TECHNOLOGY AND APPLICATIONS by Internal Resources. \*

 $\star$   $\star$   $\star$   $\star$   $\star$ 

- 17. 13. Rate the Industrial visit to Fisheries Department at Ramanathapuram and Seaweeds Industry \*
  - $\star$   $\star$   $\star$   $\star$   $\star$
- 18. 14. Rate the Industrial training on Value addition and Commerce from Seaweeds. \*

 $\star \star \star \star \star$ 

 $\star$   $\star$   $\star$   $\star$ 

## Suggestions for Improvement

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

Industrial vist and about algae

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

About algae and about seaweed

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

Yes we improve your knowledge

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

HoD/BT Dr R.Shyam Kumar



## DEPARTMENT OF BIOTECHNOLOGY

## Industry Certified Value Added Course on

## "ALGAL TECHNOLOGY AND APPLICATIONS"

# 6<sup>th</sup> to 10<sup>th</sup> January 2025

## **SUMMARY REPORT**

A five days Industry Certified Value Added Programme entitled "ALGAL **APPLICATIONS**" AND TECHNOLOGY was organized by Department of Biotechnology, Kamaraj College of Engineering and Technology, Virudhunagar, in association with Sea2Farm, Ramanathapuram, from 6<sup>th</sup> to 10<sup>th</sup> January 2025 for II B.Tech Biotechnology students (2023-27 Batch). The major objective of this program was to give an insight on basics of Algal Technology and Entrepreneurship development to the students and to provide hands-on training in seaweed cultivation and product development so that students will be able to learn the basic aspects of seaweed cultivation and apply them towards product development from seaweed, fostering innovation and sustainable business practices. "Algae" is an application part of Microbiology and Industrial biotechnology course work the students have learnt. This VAP helped them to develop entrepreneurship focus on Algae based product development.

**Day 1** of the programme started with a short Inauguration session where our Head of the Department **Dr. R.Shyam Kumar** and **Dr S.Karthikumar**, ASP/BT introduced the theme of the VAP. This was followed by a sessions on the basic Introduction Theory behind Algae and its classification by **Mr M.Selva Kumar** (resource person). The afternoon session was also handled by **Mr M.Selva Kumar** wherein he gave an introduction on algal cultivation techniques and the market demand. Additionally, various samples of seaweed were presented, allowing participants to explore the range of species and their potential applications. Day 2 started with an interesting session on Applications of seaweed by Mr. R.P.Rajadurai Jesudoss, Manager, Sea2Farm, who gave a detailed insight into various fields where seaweed based products are being used successfully. This was followed by a session on various procedures used for extracting agar agar and alginate from dry seaweed samples. The afternoon session of Day 2 was a hands-on session on preparation of agar agar and alginate from seaweed samples which was handled by Mr Jesudas.

Day 3 was planned as an industrial visit to Sea2Farm, Ramnathapuram and Fisheries Department at Ramanathapuram for a hands-on training on large scale cultivation of Algae and production of Algae based products. The students were taken to the industry accompanied by Dr. R. Shyam Kumar, Dr. S. Karthikumar, and Dr. K.Geetha. The students visited the production unit of Sea2Farm for hands-on training in large-scale production. They also visited CSIR-CSMCRI Marine Algal Research Station, where they interacted with scientists and research scholars. Additionally, they toured the automated production unit under the Fishery Department of Rameswaram, where Inspector Sathesh and Mr. Selva Kumar from the Fishery department addressed the students. Then they headed to a seaweed cultivation site where they had hands-on experience in raft building, roping techniques, and seeding techniques.

On **Day 4**, the students were divided into eight teams and tasked with developing innovative commercial products from agar and its waste. Mr. Jesudas, an industrial expert, assisted the students in refining their ideas into valuable products. The entire day was dedicated to hands-in session where students involved in product development from algae. This was an assignment for internal assessment.

On **Day 5**, the students presented their developed products along with a PPT presentation to Industry experts who evaluated the presentation and the products developed by the students. An exhibition of the products was conducted in the Department. **Dr S. Senthil, Principal and Thiru CA. V.K.Dharmarajan,** Secretary, Managing Board, Kamaraj College of Engineering and Technology, visited the exhibits and gave their valuable suggestions. Each team showcased their innovative commercial products derived from agar and its waste, providing detailed explanations of their design, production process, and potential market impact. The presentation served as an opportunity for the students to the college administration and faculty.

The valedictory function took place with students providing oral feedback in the presence of the honorable Principal of Kamaraj College of Engineering and Technology. The vote of thanks was presented by **Dr. S.Karthikumar**, One of the Programme Coordinators. Overall, the students expressed their appreciation for the enriching five days of value addition to their biotechnology careers.

Programme Coordinators

Dr K.Geetha

HoD/BT

Dr R.Shyam Kumar

Dr S.Karthikumar

Dr R.Shyam Kumar



(An Autonomous Institution - AFFILIATED TO ANNA UNIVERSITY, CHEN: 5.P.G.Childambara Nadar - C.Nagammal Campus 5.P.G.C. Nagar, K.Vellakulam - 625 701 (Near VIRUDHUNAGAR).

## DEPARTMENT OF BIOTECHNOLOGY

## Expenditure details for Industry Certified Value Added Programme on

"ALGAL TECHNOLOGY AND APPLICATIONS"

6th to 10th January 2025

S.No	Programme Coordinators: Dr S.Karthikumar, Dr. K. Geetha & Particulars	Place	Bill No	Date	Amount (Rs.
1	1 week Training fees on Algal Seaweeds	Ramanathap uram	SF-2024-01021	20/01/2025	Rs.1,00,170
2	Kit - Note pad and Pen - 53	KCET			Rs 2,650 (Proposed)
3	Refreshment & Lunch - Tea, Snacks & Lunch for 2 Resource persons for 4 days	KCET			Rs 2,650 (Proposed)
			TOTAL	Rs.1,05,470	

Amount to be settled by Office via Online account transfer

Account details of Resource persons:

Rs.1,00,170/-

Amount to be

transferred

Mr. R.P.Rajadurai Jesudoss, Manager, Sea2Farm, Ramnadapuram, Tamil Nadu E.Mail: jesuramnad@gmail.com; Ph: +919944390334 Bank Name: Tamilnad Mercantile Bank Ltd A/C No: 131150050800668 Branch: Ramanathapuram IFSC Code: TMBL0000131 MICR Code: 623060002

ogramme Coordinators Dr K.Geetha

Dr S.Karthikumar Dr R.Shyam Kumar Rs.1,00,170/-

Dr R.Shyam Kumar

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Sea2Fa	ırm	Date :				
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GSTINI + 22AU	PPW0323E1ZH	invoice ive		Sea2farm Value added sea biologicals		
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Billing Address	5:	Shipping A	ddress :	n perioden an en en falle angelen y para anno e de artes de ser anno y de anno antes de la desta de ser de ser		
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GSTIN : 33AAAT	GSTIN : 33AAATK1431B1ZH		(II yr students, Department of biotechnology) GSTIN : 33AAATK1431B1ZH			
S.No	Product Quantity (Nos)	Net Quantity (Kg)	Price/kg (Rs)	Total price (Rs)		
1	Seaweed training kit & manual (ALGAL TECHNOLOGY Course for 53 Il yr, B.Tech, Biotech students)	53	1800	95,400		
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	: 131150050800668	CGST	2.5 %	2,385.00		
	: TMBL0000131	IGST	2.3 /0	2,383.00		
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Customer

Sea 2 Farm 6/104, Surankottai, Ramanathapuram - 623 504,

Cell: 9385685282.