

# Sapthagiri College of Engineering

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)

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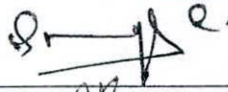

#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057  
Phone: 080-28372800/1/2 www.sapthagiri.edu.in Fax: 080-28372797

## Department of Biotechnology

### CIRCULAR


Date: 13/07/2022

This is to inform that there will be a meeting of Academic committee members for analyzing curriculum syllabus of academic year 2022-23 the meeting is scheduled on 14/07/2022 at 10.30 am in HOD's chamber.

Sl No.	Faculty Name	Designation	Signature
1	Dr.Veena S More	HOD & Professor	
2	Dr Allwin Ebinesar J S S	Associate Professor	
3	Dr.Soumya C	Assistant Professor	
4	Prof.Shobha G	Assistant Professor	



Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057



Head of Department  
Dept. of Bio-Technology  
Sapthagiri College of Engineering  
No. 57/1, Chikkasandra  
Hesaraghatta Main Road  
Bangalore -57



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## Department of Biotechnology

Date: 14/07/2022

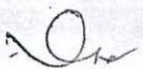

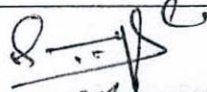
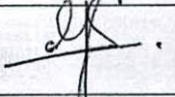
### MINUTES OF MEETING

With reference to circular dated on 13/07/2022, the academic committee member assembled in HODs chamber for addressing the following agenda.

#### Agenda:

- Reviewing department curriculum syllabus of Academic Year 2022-23
- Reviewing the feedback analysis of various stake holders of academic year 2021-22
- Identifying the gaps in the syllabus
- Action to be taken for the identified gaps.

During the meeting the following members were present

SI No.	Faculty Name	Designation	Signature
1	Dr.Veena S More	HOD & Professor	
2	Dr Allwin Ebinesar J S S	Associate Professor	
3	Dr.Soumya C	Assistant Professor	
4	Dr Shobha G	Assistant Professor	

The following points were discussed in the meeting

1. The committee members reviewed the analysis of department curriculum syllabus.
2. The committee members discussed about the feedback of department curriculum syllabus.
3. The members identified the gaps based on the analysis.
4. The following actions were taken for the gaps that are identified.

  
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## Department of Biotechnology

SL.NO	SEM	Course Title	Identified Gap
1	3 <sup>rd</sup> Sem	Units and Dimensions	Lack of practical implementation

### Action Taken:

Based on the feedback obtained from Students, Faculties and Alumni and analysis of syllabus by department academic committee members, it was decided to conduct certification course on **Units and Dimensions** to overcome the gaps identified in the curriculum/syllabus.

  
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HOD BT  
Head of the Department  
Dept. of Bio - Technology  
Sapthagiri College of Engineering  
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## Department of Biotechnology

Date: 15/07/2022

To

IQAC Coordinator  
Sapthagiri College of Engineering  
Bengaluru-560 057

Respected sir/madam,

Subject: Requisition for conduction of certification course approval from Governing Council.

With respect to the Academic committee members meeting was held for analyzing department curriculum/syllabus for the academic year 2022-23. The committee members identified few gaps after analyzing the syllabus and feedback from the stakeholders. To bridge the gaps identified in the curriculum, the committee members decided to conduct a certification course on Units and Dimensions from 14<sup>th</sup> Nov 2022 to 26<sup>th</sup> Nov 2022 for the academic year 2022-23. So, I request you to forward and get the approval from the governing council for the same.

Thanking You,

Enclosure: Budget Proposal

*forwarded for GC approval  
and ratification  
hans*

IQAC - Co-ordinator  
Sapthagiri College of Engineering  
Bengaluru - 560 057.

*[Signature]*

HOD, BT  
Dept. of Bio-Technology  
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*[Signature]*  
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## Department of Biotechnology

Date: 15/07/2022

To

IQAC Coordinator

Sapthagiri College of Engineering

Bengaluru-560 057

Respected sir/madam,

Subject: Budget Proposal for conduction of certification program on “Units and Dimensions”

The Budget Proposal for conduction a certificate program on Units and Dimensions from 14<sup>th</sup> Nov 2022 to 26<sup>th</sup> Nov 2022 is hereby enclosed for your kind consideration and approval.

The details of the recurring budget are given as follows:

Recurring Amount:


Sl. No.	Description	Quantity	Amount in Rs.
1	Bouquet	1	500
2	Certificates	Students	2000
3	Others		1500
Total			4000

*forwarded for  
QC approval and  
subjection*

*IQAC - Co-ordinator*  
Sapthagiri College of Engineering  
Bengaluru - 560 057.

  
HOD, BT

Head of the Department  
Dept. of Bio -Technology  
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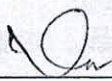


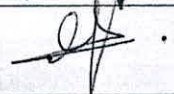
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## Department of Biotechnology

10-11-2022


### CIRCULAR

This is to inform that the following Curriculum Board members are requested to attend the meeting on 11/11/2022 at 10.30 AM in the HODs chamber to decide the syllabus and the lesson plan for the certificate program on “Units and Dimensions”

Sl No.	Faculty Name	Designation	Signature
1	Dr.Veena S More	HOD & Professor	
2	Dr Allwin Ebinesar J S S	Associate Professor	
3	Dr.Soumya C	Assistant Professor	
4	Dr.Shobha G	Assistant Professor	



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## Department of Biotechnology

Date: 10-11-2022

To,

Dr Chaitra B S

Assistant Professor

Sapthagiri College of Engineering

Bangalore - 560057.

Respected Sir,

Subject: Invitation as a “Guest Speaker” in certification program and to attend meeting to discuss about the certification program

Department of Biotechnology has planned to conduct a certification program titled “Units and Dimensions” for 3<sup>rd</sup> semester students from 14<sup>th</sup> Nov 2022 to 26<sup>th</sup> Nov 2022. In this connection, we are privileged to invite you as a guest speaker on the above mentioned topic.


Thanking you for your kind acceptance to our request. We request you to attend the meeting to discuss about the conduction of certification course on 11/11/2022 at 10.30 AM.

Thanking you

Yours faithfully



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Head of the Department  
Dept. of Biotechnology  
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## Department of Biotechnology

Date: 10-11-2022

To,

Dr Gouri Mirji

Assistant Professor

Sapthagiri College of Engineering Bangalore

Bangalore - 560057.

Respected Sir,

Subject: Invitation as a “Guest Speaker” in certification program and to attend meeting to discuss about the certification program

Department of Biotechnology has planned to conduct a certification program titled “Units and Dimensions” for 3<sup>rd</sup> semester students from 14<sup>th</sup> Nov 2022 to 26<sup>th</sup> Nov 2022. In this connection, we are privileged to invite you as a guest speaker on the above mentioned topic.

Thanking you for your kind acceptance to our request. We request you to attend the meeting to discuss about the conduction of certification course on 11/11/2022 at 10.30 AM.

Thanking you

Yours faithfully

  
HOD, BT

  
Principal  
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Bengaluru - 560 057



### Minutes of Meeting

A meeting was conducted on 11- Nov -2022 in BT HoD's Chamber to discuss and approve the following about the Certification Course for 3<sup>rd</sup> semester BT Students.

- **Course Title :** Units and Dimensions
- **Resource Personnel:** Dr Chaitra B S and Dr GouriMirji ,Assistant Professor, Sapthagiri College of Engineering Bangalore
- **Course Duration & Date:** 14<sup>th</sup> Nov 2022 to 26<sup>th</sup> Nov 2022
- **Syllabus and Schedule of the certification program**

Date	Time	Topics
14/11/2022	1:30 pm – 4.30 pm	Definition Of Physics And Physical Quantities, Science Of Measurement
15/11/2022	1:30 pm – 4.30 pm	Physical Quantities, Fundamental And Derived Units
16/11/2022	1:30 pm – 4.30 pm	Characteristics Of Standard Unit, Systems Of Units
17/11/2022	1:30 pm – 4.30 pm	Supplementary Unit, Definition Of Basic And Supplementary Unit Of S.I.
18/11/2022	1:30 pm – 4.30 pm	Classification Of Physical and chemical Quantity, Example, Problems
19/11/2022	1:30 pm – 4.30 pm	Principle Of Homogeneity Of Dimensions
21/11/2022	1:30 pm – 4.30 pm	Dimensional Equations, Applications Of Dimensional Equations, Example, Exercises
22/11/2022	1:30 pm – 4.30 pm	Force And Motion, Force And Its Units,
23/11/2022	1:30 pm – 4.30 pm	Linear Momentum, Conservation Of Momentum, Impulse
24/11/2022	1:30 pm – 4.30 pm	Work, Power And Energy, Examples, Exercises
25/11/2022	1:30 pm – 4.30 pm	Heat And Temperature, Examples, Exercises
26/11/2022	1:30 pm – 4.30 pm	Problem solving, Test



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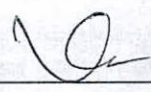


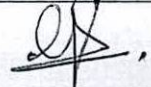
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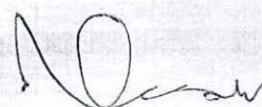
## Department of Biotechnology

The following Curriculum board members were present

Sl No.	Faculty Name	Designation	Signature
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## Department of Biotechnology

Date: 12/11/2022

### NOTICE

As a part of programming skill development, Department of Biotechnology is conducting Certification Course on “**UNITS and DIMENSIONS**” from 14<sup>th</sup> Nov 2022 to 26<sup>th</sup> Nov 2022. All the 3<sup>rd</sup> SEM BT students must attend the course compulsorily.

Head of the Department  
**HOD, BT**  
Dept. of Biotechnology  
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## Department of Biotechnology

### Certificate Course on Units and Dimensions

#### Student Enrollment

SL.No.	USN	Name of the Student
1.	1SG21BT001	AISHWARYA LOMTE
2.	1SG21BT002	AKASH V DESAI
3.	1SG21BT003	AKSHITHA S
4.	1SG21BT004	ANJANA G
5.	1SG21BT005	ANUSHA H P
6.	1SG21BT006	ANUSHA N RAJU
7.	1SG21BT007	BINDHUSHREE A
8.	1SG21BT008	CHAITRA P
9.	1SG21BT009	DARSHAN P
10.	1SG21BT010	DEEKSHITH GOWDA
11.	1SG21BT011	DEEPTHI M
12.	1SG21BT012	G PALLAVI
13.	1SG21BT013	GUNASHREE S
14.	1SG21BT014	HEMANTH KUMAR D
15.	1SG21BT015	HEMANTH KUMAR T
16.	1SG21BT016	JANAVI R
17.	1SG21BT017	KAVANA K O
18.	1SG21BT018	KRISHNA TEJA



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## Department of Biotechnology

19.	1SG21BT019	LAKSHMINARASIMHA C
20.	1SG21BT020	LAXMI KASHAPPA GADAGIN
21.	1SG21BT021	LEONDER RAFFAEL CLEMENTS
22.	1SG21BT022	MADHURA H K
23.	1SG21BT023	MANJESH GOWDA NK
24.	1SG21BT024	NANDAN R BARADE
25.	1SG21BT025	NANDINI S
26.	1SG21BT026	NAVANISH SAI VIKRAM
27.	1SG21BT027	NIKHITHA SARIKA GOWDA M S
28.	1SG21BT028	POOJASHREE S J
29.	1SG21BT029	PUNITH N
30.	1SG21BT030	R ANITHA
31.	1SG21BT031	ROHAN S ANDEWADI
32.	1SG21BT032	SANJANA L
33.	1SG21BT034	SHILPA EJ
34.	1SG21BT035	SHRINIDHI V
35.	1SG21BT036	SINCHANA D
36.	1SG21BT037	SINDHU VM
37.	1SG21BT038	SRINIVASAN R
38.	1SG21BT039	SUSANNA CATHERINE F
39.	1SG21BT040	SWATHI M P



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## Department of Biotechnology

40.	1SG21BT041	VAIDURYA KEERTHI
41.	1SG21BT042	VARADHAJITH M
42.	1SG21BT043	VARSHA M
43.	1SG21BT044	VARSHINI R PRASAD
44.	1SG21BT045	VIJAY KUMAR H M
45.	1SG21BT046	VISMAYA L

  
HOD, BT  
Department of Biotechnology  
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## Department of Biotechnology

### Certification Course on “Units and Dimensions”

#### Test Time Table

Sl. No.	DATE	DAY	TIMINGS
1	26/11/2022	Saturday	1.30 to 2.30 PM

  
Head of the Department  
**HOD, BT**  
Dept. of Biotechnology  
Sapthagiri College of Engineering  
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## Department of Biotechnology

### CERTIFICATE COURSE ON UNITS AND DIMENSIONS

#### QUESTION PAPER


Date: 26/11/2022

Duration: 1hr

Maximum marks: 25

Note: Question number 1-25(1M each)

1. How many grams of NaBr (molar mass = 102.9 g/mol) would be needed to prepare 700 ml of 0.230 M NaBr solution?  
a)16.6 g b) 16g C)16.2 g D)6g
2. The unit of Luminous intensity is \_\_\_\_\_.  
(a)K (b)mol (c)cd (d)A
3. Radian is the unit of \_\_\_\_\_ physical quantity.  
(a)Solid angle (b)Polar angle (c)Dihedral angle (d)Plane angle
4. ) A strong electrolyte is one that \_\_\_\_\_ completely in solution.  
A) reacts B) associates C) disappears D) ionizes
5. Which of the following is the correct formula for molality?
  1. Molality = kilograms of solute ÷ litres of solvent
  2. Molality = moles of solute ÷ kilograms of solvent
  3. Molality = kilograms of solute ÷ kilograms of solution
  4. Molality = moles of solute ÷ moles of solutio
6. Which of the following are exothermic processes?
  - (i) Reaction of water with quick lime
  - (ii) Dilution of an acid

  
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(iii) Evaporation of water

(iv) Sublimation of camphor (crystals)

7. Choose the quantity whose unit is not treated as a fundamental unit.

(a) length (b) velocity (c) mass (d) time

8. What is the molarity of a solution that was prepared by dissolving 14.2 g of  $\text{NaNO}_3$  (molar mass = 85.0 g/mol) in enough water to make 350 mL of solution?

a) 0.477M b) 0.0477M c) 0.4M d) 4 M

9. Which unit of measurement is multiplied by 0.39 to convert it to 'inches'?

(a) Metre (b) Millimetre (c) Centimetre (d) Decimetre

10. 1  $\text{Kg/cm}^2$  pressure is equivalent to \_\_\_\_.

(a) 10.0 bar (b) 0.1 bar (c) 1.0 bar (d) 100.0 bar

11. Angular acceleration is expressed as

(a)  $\text{m/s}^2$  (b)  $\text{w/s}^2$  (c)  $\text{rad/s}^2$  (d)  $\text{rad/s}$

12. The solid angles are measured in

(a) degrees (b) grades (c) radians (d) steradians

13. The unit  $\text{kg/m}^3$  is used for

(a) force (b) density (c) volume (d) pressure

14. The speed of light is \_\_\_\_.

(a) 299,792,458 m/s (b) 299,792,458 km/s (c) 499,792,458 km/s (d) 499,792,458 m/s

15. How many ml of solution are needed to make a 5.78 M solution with 2.98 moles of  $\text{CaO}$ ?

a) 516ml b) 56ml c) 500 d) 5

  
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## Department of Biotechnology

16. The density of 1 M solution of HCl is 1.0585 g/mL. The molality of the solution is:

1. 1.0585
2. 1
3. 0.10
4. 0.0585

17. Which of the following physical quantity is dimensionless?

(a) Angle (b) Strain (c) Specific gravity (d) All of these

18. The Basic unit of thermodynamic temperature, is

(a) degree Fahrenheit (b) degree centigrade (c) degree kelvin (d) degree absolute

19. Which of the following is an endothermic process?

- (a) Dilution of sulphuric acid
- (b) Condensation of water vapours
- (c) Sublimation of dry ice
- (d) Respiration in human beings

20. The total concentration of ions in a 0.250 M solution of HCl is \_\_\_\_\_. A) essentially zero. B) 0.125 M C) 0.250 M D) 0.500 M

21. A 5.00 mL sample of solution has  $2.8 \times 10^{-4}$  g of calcium ions. The ppm concentration is A. 18 ppm B. 56 ppm C.  $2.8 \times 10^{-1}$  ppm D.  $2.8 \times 10^2$  ppm

22. The physical quantities having same dimensions are\_\_\_\_\_.

(a) force & power (b) torque & energy (c) torque & power (d) force & torque

23. In a system of units, if force(F), acceleration(A) and time(T) are taken as fundamental units then the dimensional formula of energy is\_\_\_\_\_.

(a)  $F A^2 T$  (b)  $F A T^2$  (c)  $F^2 A T$  (d)  $F A T$

  
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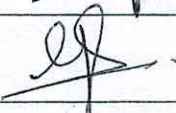
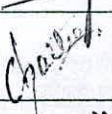
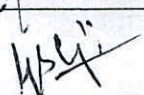
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24. The dimensional formula  $[ML^2 T^{-2}]$  represents (a) momentum (b) energy (c) acceleration (d) force

25. rad / s is the unit of (a) Angular displacement (b) Angular velocity (c) Angular acceleration (d) Angular momentum

Approved by Academic Committee members and Guest speaker:

SL. NO.	Faculty member	Designation	Signature
1	Dr.Veena S More	HOD & Professor	
2	Dr Allwin Ebinesar J S S	Associate Professor	
3	Dr.Soumya C	Assistant Professor	
4	Prof.Shobha G	Assistant Professor	
5	Dr Chaitra B S	Guest Speaker	
6	Dr Gouri mirji	Guest Speaker	

  
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## Department of Biotechnology

### Certification Course on “Units and Dimensions”

#### Solutions for the Questions

Duration: 1hr

Maximum marks: 25

ANSWER 1	C
ANSWER 2	C
ANSWER 3	D
ANSWER 4	D
ANSWER 5	B
ANSWER 6	A
ANSWER 7	B
ANSWER 8	A
ANSWER 9	C
ANSWER 10	C
ANSWER 11	C
ANSWER 12	D
ANSWER 13	B
ANSWER 14	A
ANSWER 15	A



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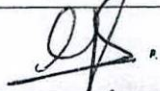
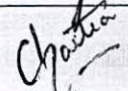
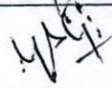
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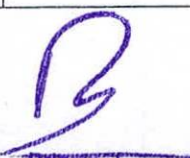
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## Department of Biotechnology

ANSWER 16	B
ANSWER 17	D
ANSWER 18	C
ANSWER 19	C
ANSWER 20	D
ANSWER 21	B
ANSWER 22	A
ANSWER 23	B
ANSWER 24	B
ANSWER 25	B

Scheme and Solutions approved by Academic Committee members:

SL. NO.	Faculty member	Designation	Signature
1	Dr.Veena S More	HOD & Professor	
2	Dr Allwin Ebinesar J S S	Associate Professor	
3	Dr.Soumya C	Assistant Professor	
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5	Dr Chaitra B S	Guest Speaker	
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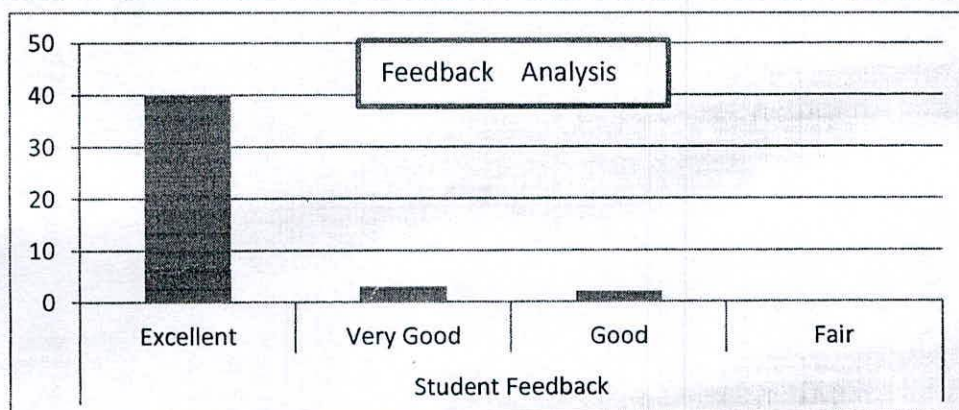
  
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### FEEDBACK ANALYSIS

Certification Programme: “Units and Dimensions”

No. of students participated	Student Feedback			
	Excellent	Very Good	Good	Fair
45	40	3	2	0

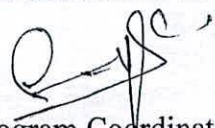



#### Action Report:

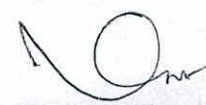
90 % of students were completely happy with the certification program and 6% of students felt it was a good program and remaining 4 % students were satisfied with the program.

#### Action Taken:

The Feedback report which was collected from the students was sent to the principal and he would take necessary actions based on the comments and conduct more programs for the benefit of students.

  
Program Coordinator

  
Principal  
Sapthagiri College of Engineering  
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Bengaluru - 560 057

  
Head of Department  
MOD-BT  
Dept. of Bio -Technology  
Sapthagiri College of Engineering  
No. 57/1, Chikkasandra  
Hesaraghatta Main Road  
Bangalore -57



## Department of Biotechnology

### Certification Course on “Units and Dimension”

#### Participant Feedback

1. How was the overall organization of the Certification Course?  
a) Poor b) Satisfactory c) Good d) Excellent
2. How appropriate were the facilities provided?  
a) Poor b) Satisfactory c) Good d) Excellent
3. Opportunity to ask questions for clarification and interaction with presenters  
a) Poor b) Satisfactory c) Good d) Excellent
4. Effectiveness of the Hands-on Sessions  
a) Poor b) Satisfactory c) Good d) Excellent
5. Topic and contents of the Certification Course  
a) Poor b) Satisfactory c) Good d) Excellent
6. How do you rate the Certification Course compared to other workshops that you have attended?  
a) Poor b) Satisfactory c) Good d) Excellent
7. Generally how was your overall experience during the Certification Course  
a) Poor b) Satisfactory c) Good d) Excellent
8. Any Suggestions:  
  

---

---

Student Name:

Student Signature:

  
Principal  
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Bengaluru - 560 057



## Department of Biotechnology

### Certification Course on “Units and Dimension”

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a) Poor b) Satisfactory c) Good d) Excellent
7. Generally how was your overall experience during the Certification Course  
a) Poor b) Satisfactory c) Good d) Excellent
8. Any Suggestions:

Very informative and it was useful.

Student Name:

Dakshith Gowda

Student Signature:





Principal

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## Department of Biotechnology

### Certification Course on “Units and Dimension”

#### Participant Feedback

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a) Poor b) Satisfactory c) ☒ Good d) Excellent
7. Generally how was your overall experience during the Certification Course  
a) Poor b) Satisfactory c) Good ☒ d) Excellent
8. Any Suggestions:

It was useful and informative.

Student Name:

Varadharaj H. M

Student Signature:

*Varadharaj H. M*

*B*  
Principal



## Department of Biotechnology

### Certification Course on “Units and Dimension”

#### Participant Feedback

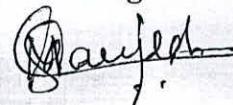
1. How was the overall organization of the Certification Course?  
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a) Poor b) Satisfactory c) Good ☒ d) Excellent
7. Generally how was your overall experience during the Certification Course  
a) Poor b) Satisfactory c) Good ☒ d) Excellent
8. Any Suggestions:

Well organised program and it was useful.

Student Name:

Mayesh Gowda N.K.

Student Signature:



  
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### Certification Course on “Units and Dimension”

#### Participant Feedback

1. How was the overall organization of the Certification Course?  
a) Poor b) Satisfactory c) Good d) Excellent
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a) Poor b) Satisfactory c) Good d) Excellent
7. Generally how was your overall experience during the Certification Course  
a) Poor b) Satisfactory c) Good d) Excellent
8. Any Suggestions:

Well organized and very informative.

Student Name: Janavi, R

Student Signature: Janavi

B  
Principal





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**Department of Biotechnology**  
**Certification Course on “Units and Dimensions”**

**Attendance**

Sl No.	USN	Student Name	14/11	15/11	16/11	17/11	18/11	19/11	21/11	22/11	23/11	24/11	25/11	26/11
			AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
1.	1SG21BT001	AISHWARYA LOMTE	1	2	3	4	5	6	7	8	9	10	11	12
2.	1SG21BT002	AKASH V DESAI	1	2	3	4	5	6	7	8	9	10	11	
3.	1SG21BT003	AKSHITHA S	1	2	3	4	5	6	7	8	9	10	11	
4.	1SG21BT004	ANJANA G	1	2	3	4	5	6	7	8	9	10	11	12
5.	1SG21BT005	ANUSHA H P	1	2	3	4	5	6	7	8	9	10	11	12
6.	1SG21BT006	ANUSHA N RAJU	1	2	3	4	5	6	7	8	9	10	11	
7.	1SG21BT007	BINDHUSHREE A	1	2	3	4	5	6	7	8	9	10	11	12
8.	1SG21BT008	CHAITRA P	1	2	3	4	5	6	7	8	9	10	11	12
9.	1SG21BT009	DARSHAN P	1	2	3	4	5	6	7	8	9	10	11	12
10	1SG21BT010	DEEKSHITH GOWDA	1	2	3	4	5	6	7	8	9	10	11	12
11	1SG21BT011	DEEPTHI M	1	2	3	4	5	6	7	8	9	10	11	12
12	1SG21BT012	G PALLAVI	1	2	3	4	5	6	7	8	9	10	12	12
13	1SG21BT013	GUNASHREE S	1	2	3	4	5	6	7	8	9	10	11	12
14	1SG21BT014	HEMANTH KUMAR D	1	2	3	4	5	6	7	8	9	10	11	12
15	1SG21BT015	HEMANTH KUMAR T	1	2	2	3	4	4	5	6	7	8	9	10

**COORDINATOR**

**Principal**  
**Sapthagiri College of Engineering**  
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**Head of Department**  
**HOD, BT**  
**Dept. of Bio-Technology**  
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## Department of Biotechnology Certification Course on "Units and Dimensions"

### Attendance

16	1SG21BT016	JANAVI R	1	2	3	4	5	6	7	8	9	10	11	12
17	1SG21BT017	KAVANA K O	1	2	3	4	5	6	7	8	9	10	11	12
18	1SG21BT018	KRISHNA TEJA	1	2	3	4	5	6	7	8	9	10	11	12
19	1SG21BT019	LAKSHMINARASIMHA C	1	2	2	3	4	5	6	7	8	9	10	11
20	1SG21BT020	LAXMI KASHAPPA GADAGIN	1	2	3	4	5	6	7	8	9	10	11	12
21	1SG21BT021	LEONDER RAFFAEL CLEMENTS	1	2	3	4	5	6	7	8	9	10	11	12
22	1SG21BT022	MADHURA H K	1	2	3	4	5	6	7	8	9	10	11	12
23	1SG21BT023	MANJESH GOWDA NK	1	2	3	4	5	6	7	8	9	10	11	12
24	1SG21BT024	NANDAN R BARADE	1	2	3	4	5	6	7	8	9	10	11	12
25	1SG21BT025	NANDINI S	1	2	3	4	5	6	7	8	9	10	11	12
26	1SG21BT026	NAVANISH SAI VIKRAM	1	2	3	4	5	5	6	7	8	9	10	11
27	1SG21BT027	NIKHITHA SARIKA GOWDA M S	1	2	3	4	5	6	7	8	9	10	11	12
28	1SG21BT028	POOJASHREE S J	1	2	3	4	5	6	7	8	9	10	11	12
29	1SG21BT029	PUNITH N	1	2	3	4	5	6	7	8	9	10	11	12
30	1SG21BT030	R ANITHA	1	2	3	4	5	6	7	8	9	10	11	12
31	1SG21BT031	ROHAN S ANDEWADI	1	2	3	4	5	6	7	8	9	10	11	12
32	1SG21BT032	SANJANA L	1	2	3	4	5	6	7	8	9	10	11	12
33	1SG21BT034	SHILPA EJ	1	2	3	4	5	6	7	8	9	10	11	12

COORDINATOR

Principal  
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Bengaluru - 560 057

Head of the Department  
HOD-BT  
Dept. of Bio-Technology  
Sapthagiri College of Engineering  
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**Department of Biotechnology**  
**Certification Course on “Units and Dimensions”**

**Attendance**

34	1SG21BT035	SHRINIDHI V	1	2	3	4	5	6	7	8	9	10	11	12
35	1SG21BT036	SINCHANA D	1	2	3	4	5	6	7	8	9	10	11	12
36	1SG21BT037	SINDHU VM	1	2	3	4	5	6	7	8	9	10	11	12
37	1SG21BT038	SRINIVASAN R	1	2	3	4	5	6	7	8	9	10	11	12
38	1SG21BT039	SUSANNA CATHERINE F	1	2	3	4	5	6	7	8	9	10	11	12
39	1SG21BT040	SWATHI M P	1	2	3	4	5	6	7	8	9	10	11	12
40	1SG21BT041	VAIDURYA KEERTHI	1	2	3	4	5	6	7	8	9	10	11	12
41	1SG21BT042	VARADHAJITH M	1	2	3	4	5	6	7	8	9	10	11	12
42	1SG21BT043	VARSHA M	1	2	3	4	5	6	7	8	9	10	11	12
43	1SG21BT044	VARSHINI R PRASAD	1	2	3	4	5	6	7	8	9	10	11	12
44	1SG21BT045	VIJAY KUMAR H M	1	2	3	4	5	6	7	8	9	10	11	12
45	1SG21BT046	VISMAYA L	1	2	3	4	5	6	7	8	9	10	11	12

**COORDINATOR**

Principal  
 Sapthagiri College of Engineering  
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 Bengaluru - 560 057

Head of the Department  
 Dept. of Biotechnology  
**HOD, BT**  
 Sapthagiri College of Engineering  
 No. 57/1, Chikkasandra  
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 Bangalore - 57





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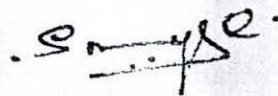
## DEPARTMENT OF BIOTECHNOLOGY

The Institute of Engineers (India) Student Chapter

**This is to certify that**

Mr./Ms. .... JANANI R. .....


Of III semester Biotechnology has successfully completed **UNITS  
AND DIMENSIONS** organized by Department of Biotechnology,  
Sapthagiri College of Engineering, Bengaluru-57 from 14-NOV-  
2022 to 26-NOV-2022



Course  
Coordinator



Head  
Department of BT

  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 087



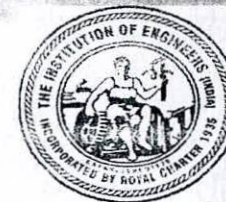
Principal  
SCE





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## DEPARTMENT OF BIOTECHNOLOGY

The Institute of Engineers (India) Student Chapter

**This is to certify that**

Mr./Ms. ....**SRINIVASAN. R**.....

Of III semester Biotechnology has successfully completed **UNITS AND DIMENSIONS** organized by Department of Biotechnology, Sapthagiri College of Engineering, Bengaluru-57 from 14-NOV-2022 to 26-NOV-2022

*[Signature]*

Course

Coordinator

*[Signature]*

Head

Department of BT

*[Signature]*  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesareghatta Main Road  
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*[Signature]*

Principal

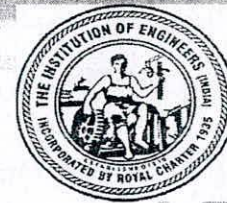
ICE





# Sapthagiri College of Engineering

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)  
An ISO 90001:2015 and 14001:2015 Certified Institution, Accredited by NAAC -A GRADE



## DEPARTMENT OF BIOTECHNOLOGY

The Institute of Engineers (India) Student Chapter

**This is to certify that**

Mr./Ms. ....VARADHAJITH.M.....

Of III semester Biotechnology has successfully completed UNITS  
AND DIMENSIONS organized by Department of Biotechnology,  
Sapthagiri College of Engineering, Bengaluru-57 from 14-NOV-  
2022 to 26-NOV-2022

Course  
Coordinator

Head  
Department of BT

Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hasaraghatta Main Road  
Bengaluru - 560 057

Principal  
SCE



## DEPARTMENT OF BIOTECHNOLOGY

The Institute of Engineers (India) Student Chapter

**This is to certify that**

Mr./Ms. .... AISHWARYA LOMTE .....

Of III semester Biotechnology has successfully completed **UNITS  
AND DIMENSIONS** organized by Department of Biotechnology,  
Sapthagiri College of Engineering, Bengaluru-57 from 14-NOV-  
2022 to 26-NOV-2022



Course  
Coordinator



Head  
Department of BT

Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057



Principal  
SCE



## DEPARTMENT OF BIOTECHNOLOGY

The Institute of Engineers (India) Student Chapter

**This is to certify that**

Mr./Ms.....**DARSHAN P**.....

**Of III semester Biotechnology has successfully completed UNITS  
AND DIMENSIONS organized by Department of Biotechnology,  
Sapthagiri College of Engineering, Bengaluru-57 from 14-NOV-  
2022 to 26-NOV-2022**



Course  
Coordinator



Head  
Department of BT

Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesareghatta Main Road,  
Bengaluru - 560 057



Principal  
SCE



## DEPARTMENT OF BIOTECHNOLOGY

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**This is to certify that**

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Sapthagiri College of Engineering, Bengaluru-57 from 14-NOV-  
2022 to 26-NOV-2022**



Principal

Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road,  
Bengaluru - 560 057

**Course  
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SCE**



### Certificate Course –Units and Dimensions

#### Post Event Report

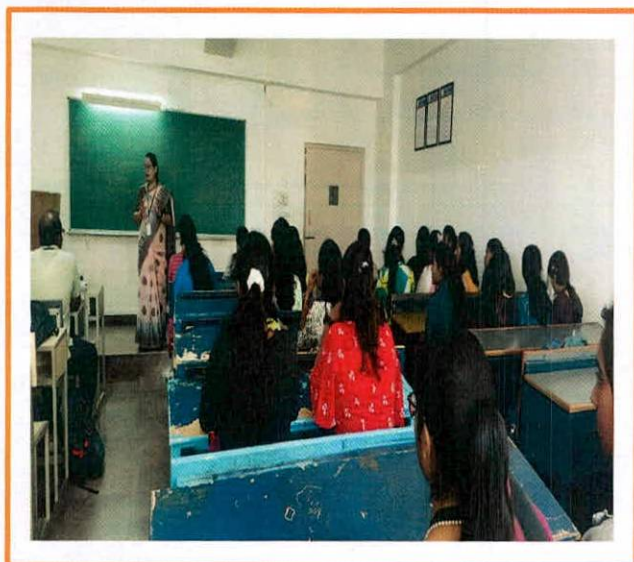
Department of BT conducted Certificate Course on Units and Dimensions from 14<sup>th</sup> Nov 2022 to 26<sup>th</sup> Nov 2022

**Objective of the Course:** The one week course made the students to be familiar with the major concepts in Units and a dimension which is a main platform for their career .Certificate Course became the vital step to improve the knowledge of students.

**Resource Person:** 1.Dr Gouri mirji, Assistant Professor, Sapthagiri College of Engineering Bangalore  
2. Dr Chaitra B S, Assistant Professor, Sapthagiri College of Engineering Bangalore

**Duration of the course:** From 14<sup>th</sup> Nov 2022 to 26<sup>th</sup> Nov 2022

**Student Participants in certification Program**



  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru



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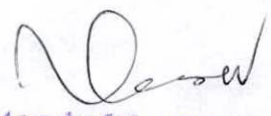
#14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560057  
Phone: 080-28372800/1/2 www.sapthagiri.edu.in Fax: 080-28372797

## Department of Biotechnology

Date	Time	Topics
14/11/2022	1:30 pm – 4.30 pm	Definition Of Physics And Physical Quantities, Science Of Measurement
15/11/2022	1:30 pm – 4.30 pm	Physical Quantities, Fundamental And Derived Units
16/11/2022	1:30 pm – 4.30 pm	Characteristics Of Standard Unit, Systems Of Units
17/11/2022	1:30 pm – 4.30 pm	Supplementary Unit, Definition Of Basic And Supplementary Unit Of S.I.
18/11/2022	1:30 pm – 4.30 pm	Classification Of Physical and chemical Quantity, Example, Problems
19/11/2022	1:30 pm – 4.30 pm	Principle Of Homogeneity Of Dimensions
21/11/2022	1:30 pm – 4.30 pm	Dimensional Equations, Applications Of Dimensional Equations, Example, Exercises
22/11/2022	1:30 pm – 4.30 pm	Force And Motion, Force And Its Units,
23/11/2022	1:30 pm – 4.30 pm	Linear Momentum, Conservation Of Momentum, Impulse
24/11/2022	1:30 pm – 4.30 pm	Work, Power And Energy, Examples, Exercises
25/11/2022	1:30 pm – 4.30 pm	Heat And Temperature, Examples, Exercises
26/11/2022	1:30 pm – 4.30 pm	Problem solving, Test

Conclusion: A program of education resulting in a certificate of completion rather than a degree. These programs prepare students to complete a specific task or allow them proficiency in one of the particular aspect of their field. Students were benefit with programming skills .Students pursues certificates in order to get ahead in the professional field of their interest.

  
Principal  
Sapthagiri College of Engineering  
14/5, Chikkasandra, Hesaraghatta Main Road  
Bengaluru - 560 057

  
Head of the Department  
HOD, BT  
Dept. of Bio - Technology  
Sapthagiri College of Engineering  
No. 57/1, Chikkasandra  
Hesaraghatta Main Road  
Bangalore -57