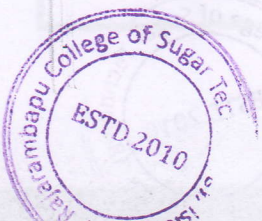


## ANNUAL TEACHING PLAN

Academic Year: 20..23... - 2024... Class: B.Sc. III Division: ..Sugar Tech.

Subject: Eq. Design II.... Paper Title: Eva. & Con. Paper No.: ..II.....

			Topic/ Unit	Sub-units Planned
<b>Month: June</b>				
Teaching days				
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
<b>Month: July</b>				
Teaching days		26	Admission work.	1) H.S & Eva. Coefficient
Periods Allotted		12	1.1 Evaporator	2) Heating surface
Periods available		09		3) Tube size
Teaching	Practical's/ Tutorials	Tests		4) In-out connections
09	—	—		5) Sizing
				6) Steam req.
<b>Month: August</b>				
Teaching days		24	1.2 Syrup sulphitor	1) Factor used to design sulphitor
Periods Allotted		15	<del>fact</del>	2) Design
Periods available		12		3) Automation
Teaching	Practical's/ Tutorials	Tests		4) Construction
12	—	—		



Sugar Tech

Ver No.: II.....

Sub-units Planned

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izing  
can req.

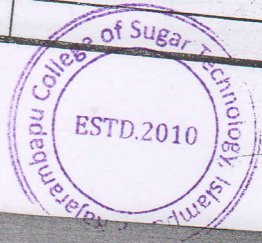
for uses to  
ring sulphator  
sign

formation  
ubraction

Month: September		Topic/ Unit	Sub-units Planned
Teaching days	24	2.1 Vacuum pan  2.2 Crystallizers	1) Types of pan 2) Design of batch pan 3) continuous pan 4) Pan capacity 5) construction pan 6) Type of aggralizer 7) Cap. of aggralizer 8) cost of water req.
Periods Allotted	11		
Periods available	11		
Teaching	Practical's/ Tutorials		
08	-	-	
Month: October			
Teaching days	22	2.3 Centrifugal	1) Type of centrifugal 2) Gravity factor 3) Type of screen 4) curing 5) capacity of basket
Periods Allotted	12		
Periods available	12		
Teaching	Practical's/ Tutorials		
12	-	-	
Month: November			
Teaching days	10	2.4 Hopper & Grader	1) Drying & cooling 2) Grading of sugar
Periods Allotted	06		
Periods available	06		
Teaching	Practical's/ Tutorials		
06	-	-	
Month: December			
Teaching days			
Periods Allotted			
Periods available			
Teaching	Practical's/ Tutorials	Tests	



Month: January			Topic/Unit	Sub-units Planned
Teaching days	26			
Periods Allotted	12			
Periods available	09			
Teaching	Practical's/ Tutorials	Tests		
09	-	01		
Month: February			Unit - 1	Added water. fibre etc MT + Care, Bag/CS AB + Care Jena Pako, ERU.
Teaching days	23			
Periods Allotted	11			
Periods available	11			
Teaching	Practical's/ Tutorials	Tests		
09	-	01		
Month: February			Unit - 2	Extraction Primary extraction Secondary extraction Mill extraction RME
Teaching days	23			
Periods Allotted	11			
Periods available	11			
Teaching	Practical's/ Tutorials	Tests		
09	-	01		
Month: March			Unit - 2	whole mill extraction Control parameters
Teaching days				
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
Month: April				
Teaching days				
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		

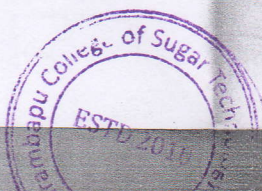


Academic Year: 2  
 Subject: Sugar  
 Month: June  
 Teaching days  
 Periods Allotted  
 Periods available  
 Teaching | Practica  
 Tutorial  
 Month: July  
 Teaching days  
 Periods Allotted  
 Periods available  
 Teaching | Practica  
 Tutorial  
 Month: August  
 Teaching days  
 Periods Allotted  
 Periods available  
 Teaching | Practica  
 Tutorial

Month: September			Topic/ Unit	Sub-units Planned
Teaching days				
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
Month: October				
Teaching days				
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
Month: November				
Teaching days				
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		
Month: December				
Teaching days		11		
Periods Allotted		05		
Periods available		04		
Teaching	Practical's/ Tutorials	Tests		
			Unit 1	(1) Definition & formulae (2) Technical det. (3) fundamental for Bx + bag, K3 + 602

.....  
 er No.:   Z  .....

Sub-units Planned



Sub-units Planned		Month: January	Topic/ Unit	Sub-units Planned
Teaching days		26	Centrifugal Theories.	Centrifugal forces. mean equivalent radius Gravity factor Time taken.
Periods Allotted		12		
Periods available		09		
Teaching	Practical's/ Tutorials	Tests		
		Month: February		
Teaching days		23	Centrifugal Theories	Capacity of basket moment of Inertia. power required. Constructions. screen washing sugar washing massive charging separation limiter
Periods Allotted		11		
Periods available		11		
Teaching	Practical's/ Tutorials	Tests		
09	-	01	Centrifugal operation	
		Month: March		
Teaching days		12	Drying, cooling & Grading	Drying, cooling Grading.
Periods Allotted		02		
Periods available		06		
Teaching	Practical's/ Tutorials	Tests		
06	✓	-	Storage of sugar & molasses.	specification of sugar Construction of godown
		Month: April		
Teaching days				
Periods Allotted				
Periods available				
Teaching	Practical's/ Tutorials	Tests		



## ANNUAL TEACHING PLAN

Academic Year: 2023 - 2024

Class: B.Sc. II (sem-III)

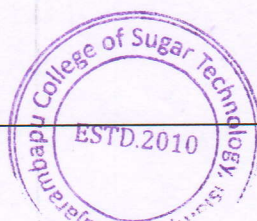
Division: Sugar Technology

Subject: Equipment Design

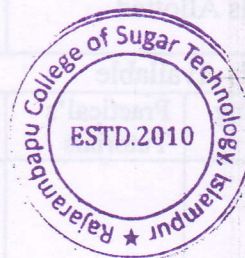
Paper Title: Clarification House

Paper No: I

			Topic / Unit	Sub-unit Planned
Month: June			Admission Work	
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: July			Metals, their Properties & Uses in Sugar Industries  Juice Heaters	<ul style="list-style-type: none"> <li>• Different type of metals used in sugar industries.</li> <li>• Metal properties related to engineering/mechanical properties of metal</li> <li>• Heat transfer coefficient</li> <li>• Heating surface.</li> <li>• Sizing of heater</li> <li>• Tube size and number of tubes</li> </ul>
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: August			Sulphur Burners/ Furnace	<ul style="list-style-type: none"> <li>• No of passes and juice inlet/outlet sizes</li> <li>• Construction of juice heater</li> <li>• Combustion process of sulphur</li> <li>• Quantity of air required</li> <li>• Capacity of sulphur burner</li> <li>• Construction of sulphur burner</li> </ul>
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: September			Juice Sulphitor	<ul style="list-style-type: none"> <li>• Factors used to design continuous juice sulphitor or reaction tank</li> <li>• Lime proportioning device (lime dosing)</li> <li>• SO<sub>2</sub> gas distribution (SO<sub>2</sub> gas dosing)</li> <li>• Mechanical stirrer for mixing of reagent</li> <li>• Design of tank with respect of diameter</li> <li>• Automation for pH control</li> <li>• Construction of continuous juice sulphitor</li> </ul>
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		



			Topic / Unit	Sub-unit Planned
Month: October			Juice Clarifier  Filtration	<ul style="list-style-type: none"> <li>● Type of clarifier</li> <li>● Functional theory of operation</li> <li>● Retention Time</li> <li>● Flash Tank</li> <li>● Capacity of Clarifier</li> <li>● Construction of clarifier</li> <li>● Types of filters</li> <li>● Theory of the filtration</li> <li>● Mud mixture</li> <li>● Capacity of vacuum filter</li> <li>● Construction of vacuum filter</li> </ul>
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: November				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: December				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: January				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		



College Name & Symbol: Rajarambapu College of Sugar  
Technology, Islampur.

### Teacher's Personal Information

Academic Year - 2023 - 2024

Name in full: Jadhav Dipali Vilas

Qualifications: M.Sc. (org. chemistry) Department: Chemistry (S.T.)

Designation: Asst. Professor Date of Appointment: 01/08/2023

Present Pay Scale: ..... Blood Group: A<sup>+</sup>

### ADDRESS

Residential

A/p. Kasegaon, Tal. - Lalwa  
Dist. - Sangli

Permanent

A/p. Kasegaon, Tal. - Lalwa  
Dist. - Sangli

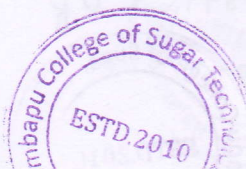
Ph. No. (R) .....

Mobile No. 7666614352

(O) .....

E-mail ID: dipajadhav.79760@gmail.com

Fax: .....





## ANNUAL TEACHING PLAN

Academic Year: 2023 - 2024

Class: B.S.C I

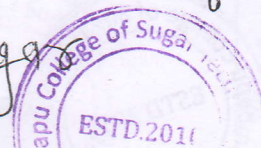
Division: .....

Subject: Applied Chemistry

Paper Title: Sugar chemistry & Biochemistry (Sem I)

Paper No. I & II

				Topic / Unit	Sub-unit Planned
Month: June					
Teaching days					
Periods Allotted					
Periods Available					
Teaching	Practical's Tutorials	Tests			
Month: July					
Teaching days					
Periods Allotted					
Periods Available					
Teaching	Practical's Tutorials	Tests			
Month: August				Unit -1 Carbohydrates:	<ul style="list-style-type: none"> <li>- Introduction.</li> <li>- forms of sugar &amp; its use. Health effect of sugar.</li> <li>- Introduction and class<sup>n</sup> of carbohydrates.</li> <li>- Rea<sup>n</sup> of Monosaccharides</li> <li>- Di &amp; Polysaccharides</li> </ul>
Teaching days					
Periods Allotted					
Periods Available					
Teaching	Practical's Tutorials	Tests			
	-	2			
Month: September				Unit II Structure and Properties of Sugar	<ul style="list-style-type: none"> <li>- phy. &amp; che. properties</li> <li>- Decomposition rean</li> <li>- chem. properties of sucrose, ag. sucrose.</li> <li>- che. &amp; phy properties of reducing sugar</li> </ul>
Teaching days					
Periods Allotted					
Periods Available					
Teaching	Practical's Tutorials	Tests			



			Topic / Unit	Sub-unit Planned
Month: October			Unit III  Bio-molecules  -  Unit - IV Carbohydrate metabolism & Enzymology Internal.	- Introduction.  - DNA - RNA - 5th class. living cell, function of cell. - TCA cycle Pentose phosphate Pathway - Enzymes - vit.
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: November				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: December				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: January				
Teaching days				- TCA cycle, - Pentose phosphate Pathway - Enzymes. - vitamins
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		



# ANNUAL TEACHING PLAN

Academic Year: 2023 - 2024

Class: B.Sc I

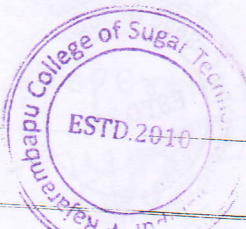
Division: .....

Subject: Applied Chemistry

Paper Title: Organic chemistry /  
Physical chemistry  
(sem - II)

Paper No. III & IV

Month: November			Topic / Unit	Sub-unit Planned
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: December				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: January			Sugars & Poly saccharides - Introduction - stereo chemistry & cyclic forms - class <sup>n</sup> . of carbohydrates - sol <sup>n</sup> & strength of sol <sup>n</sup> . - chemical kinetics	
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: September Feb.				- first order rean - second order rean
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		



			Topic / Unit	Sub-unit P1
Month: <u>March</u>			organic acid & polyphenols	- organic polyphenol introduce - Non-sug. sugar & juice
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: <u>April</u>			Distribution law (Unit-02) - colloidal state - Analytical chemistry & chromatography	- Appl <sup>m</sup> - Beer's law. - Basic C errors error - thin l. - gas ch
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: . . .				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month:				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		



# ANNUAL TEACHING PLAN

Academic Year: 2023 - 2024

Class: M.Sc. I (ST) (CAT)

Division: .....

Subject: Applied Chemistry

Paper Title: .....

Paper No. .... Bio

			Topic / Unit	Sub-unit Planned
Month: June				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: July				
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: August			Unit - Basic Concept of chemistry	<ul style="list-style-type: none"> <li>- Det<sup>n</sup></li> <li>- Arrhenius Concept</li> <li>- Lewis concept</li> <li>- Glass electrode</li> <li>- optical isomerism</li> <li>- Enantiomer</li> </ul>
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		
Month: September			Unit - Alcohols	<ul style="list-style-type: none"> <li>- Introduction</li> <li>- Types of alcohol:</li> <li>* monohydric</li> <li>* Dihydric alcohol</li> <li>* Trihydric alcohol</li> </ul>
Teaching days				
Periods Allotted				
Periods Available				
Teaching	Practical's Tutorials	Tests		

