SDM College of Engineering and Technology

Department of Chemical engineering

The department assesses the learning levels of the students and conducts special programmes for slow learners.

Students at Chemical Engineering represent a combination of bright students and average students. To help them to cope up with the new learning environment, a number of measures are taken by the department for their betterment.

Parents are invited in the middle of semester to interact with concerned course instructors/ mentor to discuss the progress of their wards. Mentor-mentee relationship is followed in the department. The mentor maintains a Students' Record, to keep track of the records of the mentees. This is to help and to identify the slow learners from each batch of each year and every course. During the pandemic period slow learners were motivated and focused to concentrate on important questions in the entire respective subject and special hours were allotted through online mode. Each type of students has different learning attitudes and learning habits. The objective of such assessment process of the learning levels of the students is to identify the factors affecting the student's performance.

Every course instructor/mentor maintains a Students' record. Following records are to be maintained by Course Instructor/mentor of each class: (i) Student Information record (ii) Marks Statement (Internal Assessment and Semester End Exams) (iii) List of slow learners of their batch. (iv) Remedial measures are taken and details (circulars and notices) (v) Records of activities.

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023-02-08 15:02+05:30

SDM College of Engineering and Technology, Dharwad.

Department of Chemical Engineering

Circular

20/04/2021

All the faculty members are asked to submit the list of slow learners those who scored (below 10) in internal tests to the concerned class advisors for the special coaching classes that are planned to be conducted from 03/05/2021 to 29/06/2021.

Class advisors are requested to submit the consolidated slow learners based on the previous Internal Assessment, Attendance, Assignments/quizzes.

On the day of coaching classes, the faculties should,

1. Coach the important questions to the students and should conduct the class test.
2. Provide the supplementary study Materials.
3. Pay individual attention to the slow leamers.
4. The Attendance should be submitted to the HoD after the coaching class.
5. Create ability in the students to answer the questions in class.
6. To create general awareness amongst students about their improved performance in academics.
7. To Increase attentiveness in class.

H.O.D.
Department of Chemical Engineering
SDM College of Engg & Technology,
Dharwad-580 002

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023-02-08 15:03+05:30

SDM COLLEGE OF ENGINEERING & TECHNOLOGY, DHARWAD
Department of Chemical Engineering

Academic Year: 2020-21

TIME TABLE (EVEN SEMESTER)

Class: IV Sem **Lab Batches: B1(2SD17CH002 to 2SD19CH009) B2(2SD19CH010 to 2SD19CH028)** **Class Room: 16**

Days	8-00am to 9-00am	9-00am to 10-00 am	10-00am to 10-30am	10-30am to 11-30 am	11-30am to 12-30 pm	12-30pm to 1-30 pm	1-30 pm to 2-30 pm	2-30 pm to 3-30 pm	3-30pm to 4-30 pm
Monday		**PHT**	**TEA BREAK**	**ET&M**	**CRE-I**	**CET**	**LUNCH BREAK**	Introductory Project	
Tuesday		**EM-IV**		**PHT**	**CET**	**CRE-I**		**CET(SLC)**	**CRE-I(SLC)**
Wednesday	**ET&M**	**PCE**		**PHT**	**EM-IV**	**CRE-I**			
Thursday	**PHT**	**CET**		← CM&S/FM Lab (B1 / B2) →					
Friday	**PCE**	**CET**		**EM-IV**	**CRE-I**	**ET&M**			
Saturday	← CM&S/FM Lab (B2 / B1) →				**PCE**				

NOTE: This time table will be in force from 15-03-2021

Course Code	Course Title	Credits	Course Instructor
18UMAC400	Engineering Mathematics - IV	3	Prof. Shreekant Kanguri
18UCHC400	Process Heat Transfer	4	Prof. Shivanand. Y.A
18UCHC401	Chemical Reaction Engineering-I	4	Prof. Shivanand. Y.A
18UCHC402	Chemical Engineering Thermodynamics	4	Dr. Rashmi. S.H
18UCHC403	Pollution Control Engineering	3	Dr. Lokeshwari N
18UCHC404	Energy Technology and Management	3	Prof. Kirankumar Rathod
18UCHL405	Computational Methods & Simulation Laboratory	1.5	Prof. Kirankumar Rathod
18UCHL406	Fluid Mechanics Laboratory	1.5	Dr. Rashmi. S.H/ Dr. Lokeshwari N
18UCHL407	Introductory Project	1	Prof. Shivanand. Y.A/ Dr. Keshava Joshi
Total Credits offered		25	

- **SLC – Slow learner classes**

Staff In charge **HOD** **Dean (AP)**

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023-02-08 15:03+05:30

SDM COLLEGE OF ENGINEERING & TECHNOLOGY, DHARWAD
Department of Chemical Engineering

Academic Year: 2020-21

TIME TABLE (EVEN SEMESTER)

Class: VI Sem **Lab Batches: B1(2SD17CH007 to 2SD18CH011)** **B2(2SD18CH012 to 2SD18CH031) Class Room: Dept. seminar Hall**

Days	8-00am to 9-00am	9-00am to 10-00 am	10-00am to 10-30am	10-30am to 11-30 am	11-30am to 12-30 pm	12-30pm to 1-30 pm	1-30 pm to 2-30 pm	2-30 pm to 3-30 pm	3-30pm to 4-30 pm
Monday		**TP**	**TEA BREAK**	← **CED-II**	→	**OE**	**LUNCH BREAK**	← Minor Project - 2 →	
Tuesday		**OE**		← **CED-II**	→	**MT-II(SLC)**		← MT/CRE Lab (B1 / B2) (2.00pm to 5.00pm) →	
Wednesday		**MT-II**		**TP**	**CT**	Minor Project - 2		**OE**	Minor Project - 2
Thursday		**TP**		**MT-II**	**PU&IS**			← MT/CRE Lab (B1 / B2) (2.00pm to 5.00pm) →	
Friday		**CT**		**MT-II**	**PU&IS**	**TP(SLC)**		← Soft Skills/Aptitude →	
Saturday		**MT-II**		**CT**	**PU&IS**				

NOTE: This time table will be in force from 15-03-2021

Course Code	Course Title	Credits	Course Instructor
18UCHC600	Mass Transfer - II	4	Dr. Keshava Joshi
18UCHC601	Chemical Equipment Design - II	4	Dr. Keshava Joshi
18UCHL602	Mass Transfer Laboratory	1.5	Prof. S.S. Inamdar/Dr. Keshava Joshi
18UCHL603	Chemical Reaction Engineering Laboratory	1.5	Prof. Ashoka. H.S/Prof. Shivanand. Y.A
18UCHL604	Minor Project - 2	2	Prof. Ashoka. H.S
18UHUL605	Soft Skills/Aptitude	1	
18UCHE606	Transport Phenomena (Elective)	3	Dr. Lokeshwari N
18UCHE607	Catalyst Technology (Elective)	3	Prof. Ashoka. H.S
18UCHE608	Plant Utilities and Industrial Safety(Elective)	3	Prof. S.S. Inamdar
18UCHO613	Biology for Engineers (Open Elective)	3	Prof. Kirankumar Rathod
Total Credits offered		26	

- **SLC – Slow learner classes**

Staff In charge **HOD** **Dean (AP)**

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023-02-08 15:03+05:30

Attendance sheet for Slow Learner Classes

Slow learner classes

IV Sem Chemical Engg. Thermodynamics

2020-21

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE)					GRADE	SIGN
			IA-I (20)	IA-II (20)	IA-III (20)	CTA (10)	CIE (50)		
55	2SD17CH011	Narasanagouda Patil	09	12	10	07	29		
56	2SD18CH015	Priyanka	10	12	12	09	33		
57	2SD18CH030	Vaibhavi Totad	10	12	15	08	35		
58	2SD19CT1011	Kartik Kulkarni	Ab	10	13	07	30		
59	2SD19CH1017	Praveen Tuppad	Ab	06	12	08	26		
60									
61									
62									
63									
64									
65									
66									
67									
68									
69									
70									
71									
72									
73									
74									
75									
76									
77									
78									
79									
80									

IA – Internal Assessment
CTA – Course Teacher Assessment
CIE – Continuous Internal Evaluation

STUDENTS' COURSE RECORDS: Attendance

Month	5				6										
Date	04	11	18	25	03	15	22	29							
Class No→ / Sl. No ↓	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
55	1	2	3	4	A	5	6	7							
56	1	2	3	4	5	6	7	8							
57	1	2	3	4	5	6	7	8							
58	A	1	2	3	4	5	6	7							
59	1	2	A	3	4	5	6	7							
60															
61															
62															
63															
64															
65															
66															
67															
68															
69															
70															
71															
72															
73															
74															
75															
76															
77															
78															
79															
80															
% Attendance															
% Syllabus															

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023-02-08 15:03+05:30

SDM College of Engineering and Technology, Dharwad.

Department of Chemical Engineering

Numericals solved for slow learners

Sem: IV **Sub: Chemical Engineering Thermodynamics**

1. How many degrees of freedom has each of the following systems?

i) Liquid water in equilibrium with its vapor
ii) Liquid water in equilibrium with a mixture of water vapor and nitrogen
A liquid solution of alcohol in water in equilibrium with its vapor

2. Liquid water at 180˚C and 1002.7 kPa has an internal energy (on an arbitrary scale) of 762 kJ/kg and a specific volume of 1.128 cm^3/g.
i)What is its enthalpy?
ii) The water is brought to the vapor state at 300˚C and 1500 kPa, where its internal energy is 2784.4 kJ/kg and its specific volume is 169.7 cm^3/g. Calculate ΔU and ΔH for the process.

3. Calculate ΔU, ΔH, W and Q for the following processes:
i) An ideal gas is expanded from 5 bar to 4 bar isothermally at 600 K.
ii) An ideal gas contained in a vessel of 0.1 m^3 capacity is initially at 1 bar and 298 K. It is heated at constant volume to 400 K. Assume C_P=30 J/mol K.

4. An ideal gas undergoes the following reversible processes:
i) From an initial state of 343 K and 1 bar it is compressed adiabatically to 423 K
ii) It is then cooled to 343 K at constant pressure
iii) Finally, it is expanded to its original state isothermally.
Calculate ΔU , ΔH , Q and W for each step as well as for the entire cycle.
Assume $C_V = (3/2)R$.

5. Calculate ΔU and ΔH for 1 kg of water when it is vaporized at the constant temperature of 100˚C and the constant pressure of 101.325 kPa. The specific volumes of liquid and vapour water at these conditions are 0.00104 and 1.673 m^3/kg. For this change, heat in the amount of 2256.9 kJ is added to the water.

6. An ideal gas undergoes the following reversible processes:
(i) From an initial state of 343 K and 1 bar it is compressed adiabatically to 423 K.
(ii) It is then cooled to 343 K at constant pressure.
(iii) Finally it is expanded to its original state isothermally.
Calculate ΔU, ΔH, W and Q for each step. Assume $C_V = (3/2)R$.

7. An ideal gas which was initially at 1 bar and 280 K is compressed to 5 bar and 280 K by two different reversible processes:
i) Cooling at constant pressure followed by heating at constant volume
ii) Heating at constant volume followed by cooling at constant pressure
For each of the above paths, determine the conditions at the intermediate state and ΔU, ΔH, Q and W. The heat capacities are C_V = 20.786 kJ/kmol.K and C_P = 29.1 kJ/kmol.K

8. Determine the molar volume of gaseous methane at 300 K and 600 bar by the following methods:

i) Using the ideal gas equation
ii) Using the van der Waals equation given that a = 0.2285 N m^4/mol^2 ; b = 4.27 x 10^{-5} m^3/mol
iii) Using the Redlich – Kwong equation given that T_C = 191.1 K and P_C = 46.4 bar.

9. The standard heat of combustion of graphite at 298 K is – 393.778 kJ/mol. Determine the heat of combustion at 800 K . The heat capacities in J/mol K are:

Carbon: $11.19 + 1.096 \times 10^{-2} T - 4.894 \times 10^5 T^{-2}$

Oxygen: $34.62 + 1.08 \times 10^{-3} T - 7.859 \times 10^5 T^{-2}$

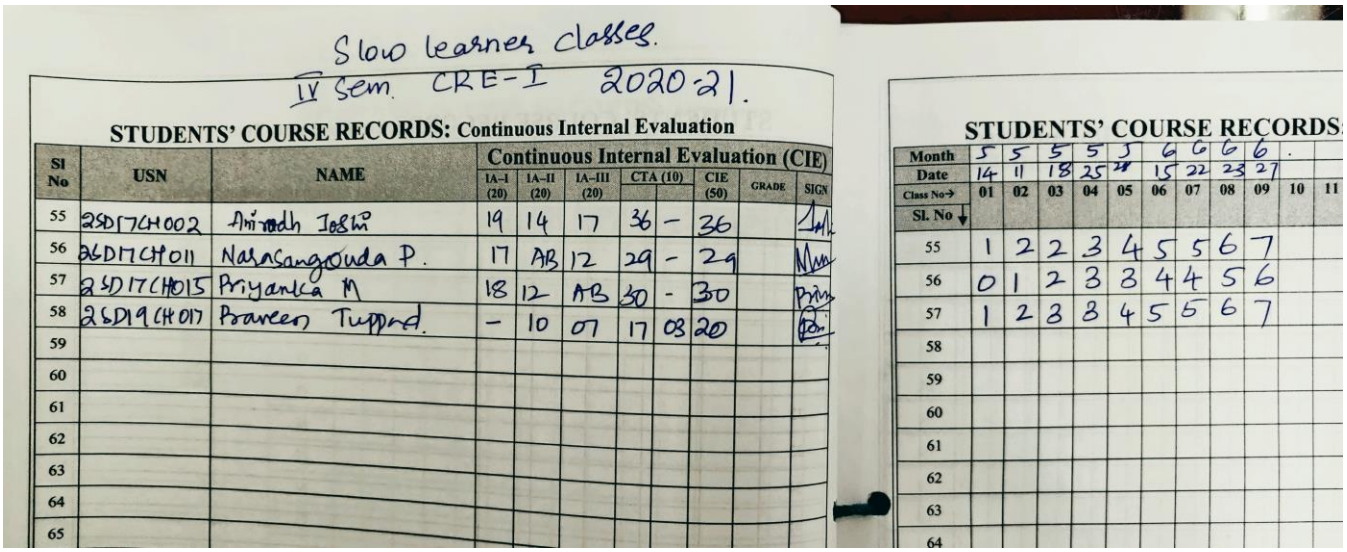
Carbon dioxide: $43.29 + 1.147 \times 10^{-2} T - 8.185 \times 10^5 T^{-2}$

10. A nuclear power plant generates 750 MW; the reactor temperature is 315˚C and a river with water temperature of 20˚C is available.

i) What is the maximum possible thermal efficiency of the plant, and what is the minimum rate at which heat must be discarded to the river?
ii) If the actual thermal efficiency of the plant is 60 % of the maximum, at what rate must heat be discarded to the river, and what is the temperature rise of the river if it has a flow rate of 165 m^3s^{-1} ?

11. The work output from a Carnot engine operating between two thermal reservoirs at 500 K and 300 K respectively, is utilized by a Carnot refrigeration machine for absorbing heat at the rate of 4 kJ/s from a cold room at 270 K and discarding heat to the surroundings at 300 K . Determine the quantity of heat absorbed by the engine at 500 K. If the COP of the refrigerator and the efficiency of the engine are two-third of the ideal values, what is the quantity of heat absorbed by the engine at 500 K ?

Attendance sheet for Slow Learner Classes



Slow learner classes.
IV Sem. CRE-I 2020-21.

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE)						GRADE	SIGN
			IA–I (20)	IA–II (20)	IA–III (20)	CTA (10)		CIE (50)		
55	2SD17CH002	Amruth Joshi	19	14	17	36	–	36		
56	2SD17CH011	Nanasangouda P.	17	AB	12	29	–	29		
57	2SD17CH015	Priyanka M	18	12	AB	30	–	30		
58	2SD19CH017	Praveen Tuppad.	–	10	07	17	03	20		
59										
60										
61										
62										
63										
64										
65										

STUDENTS' COURSE RECORDS

Month	5	5	5	5	5	6	6	6	6		
Date	14	11	18	25	29	15	22	23	27		
Class No→	01	02	03	04	05	06	07	08	09	10	11
Sl. No ↓											
55	1	2	2	3	4	5	5	6	7		
56	0	1	2	3	3	4	4	5	6		
57	1	2	3	3	4	5	5	6	7		
58											
59											
60											
61											
62											
63											
64											

Theory/Numericals solved for slow learners in the class

Sem: IV **Sub: Chemical Reaction Engineering-I**

1. Interpretation of batch Reactor data- theory with numerical problems.

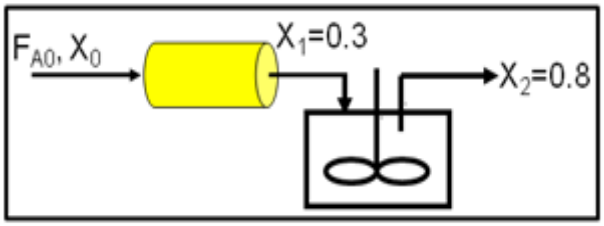
a) At 380°C, the half-life period for the first order decomposition of H_2O_2 is 360 min. the energy of activation of the reaction is 200kJ mol^{-1}, Calculate (i) rate constant at 450^oC and (ii) the time required for 75% decomposition at 450°C.

b) The rate law for the reaction, $2Cl_2O \rightarrow 2Cl_2 + O_2$ at 200^oC is found to be : $rate=k[Cl_2O]^2$
(a)How would the rate change if $[Cl_2O]$ is reduced to one-third of its original value?
(b)How should the $[Cl_2O]$ be changed in order to double the rate?

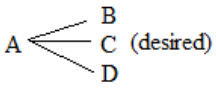
2. Reactor designs- Batch, PFR,CSTR advantages and disadvantages with features, design equation. Problems.

a) The elementary, irreversible liquid-phase reaction A B + C is carried in a CSTR (orginal reactor) and the conversion of 70% is achieved. You have two new reactors that are each exactly half the size of the original CSTR to replace the original CSTR. If the two new reactors are used in series and the feed conditions remain identical to those for the original reactor, total conversion achieved in the 2–reactor chain.

b) Calculate the reactor volumes shown below for the reaction data in the table when the molar flow rate is 52 mol/min. $-r_A$ is in terms of $mol/m^3.s$



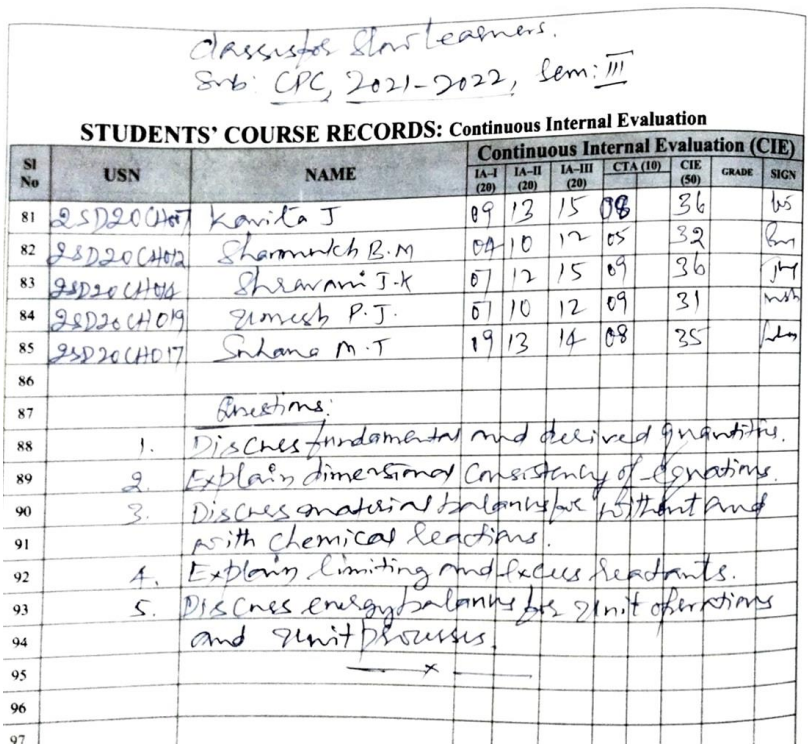
3. Multiple reactions theory and derivation with problems.

a) Liquid reactant A (C_{Ao}=2) decomposes as per the reactions  with r_B =1, $r_C = 2C_A$, $r_D = C_A^2$. Determine maximum concentration of desired product that can be obtained in MFR

b) A ⟶ B reaction is carried in two reactors. Calculate the volume of reactors for the configuration where PFR with conversion of 30% is followed by MFR with 80% conversion of A connected in series. The molar flow rate is 52 mol/min. Following are conversion and rate data obtained in the laboratory.

4. Revision and clearing doubts in the class.

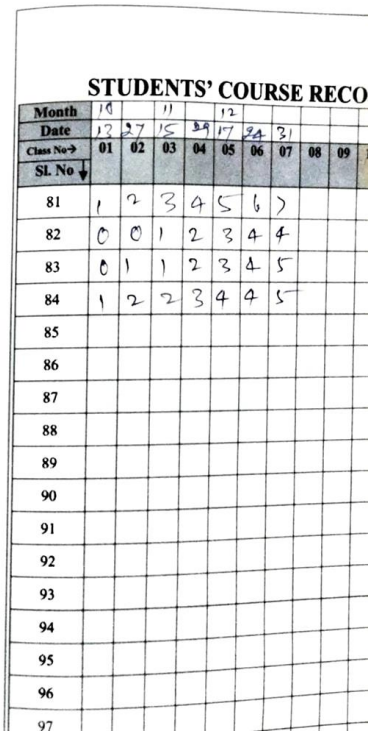
Slow Learner Classes for the year 2021-22



Classes for Slow learners.
Sub: CPC, 2021-2022, Sem: III

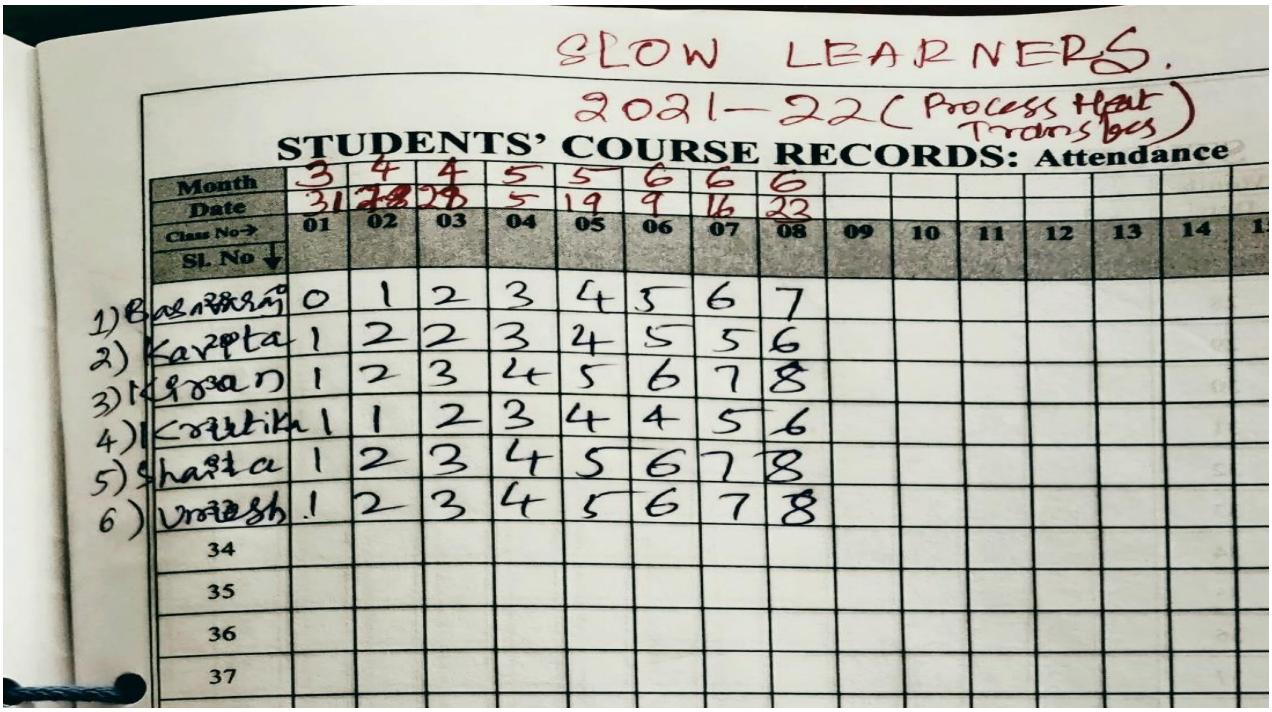
STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE)						
			IA–I (20)	IA–II (20)	IA–III (20)	CTA (10)	CIE (50)	GRADE	SIGN
81	2SD20CH07	Kavita J	09	13	15	08	36		
82	2SD20CH02	Sharmitch B.M	04	10	12	05	32		
83	2SD20CH05	Shravani J.K	07	12	15	09	36		
84	2SD20CH09	Umesh P.J.	07	10	12	09	31		
85	2SD20CH17	Suhana M.T	19	13	14	08	35		
86									
87		Questions:							
88	1.	Discuss fundamental and derived quantities.							
89	2.	Explain dimensional Consistency of equations.							
90	3.	Discuss material balances without and							
91		with chemical reactions.							
92	4.	Explain Limiting and Excess Reactants.							
93	5.	Discuss energy balances for unit operations							
94		and unit processes.							
95		— x —							
96									
97									



STUDENTS' COURSE RECO

Month	10		11		12				
Date	13	27	15	29	17	24	31		
Class No→ / Sl. No ↓	01	02	03	04	05	06	07	08	09
81	1	2	3	4	5	6	7		
82	0	0	1	2	3	4	4		
83	0	1	1	2	3	4	5		
84	1	2	2	3	4	4	5		
85									
86									
87									
88									
89									
90									
91									
92									
93									
94									
95									
96									
97									



SLOW LEARNERS.
2021–22 (Process Heat Transfer)

STUDENTS' COURSE RECORDS: Attendance

Month	3	4	4	5	5	6	6	6							
Date	31	7	25	5	19	9	16	23							
Class No→ / Sl. No ↓	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
1) [illegible]	0	1	2	3	4	5	6	7							
2) Kavita	1	2	2	3	4	5	5	6							
3) [illegible]	1	2	3	4	5	6	7	8							
4) [illegible]	1	1	2	3	4	4	5	6							
5) Shasta	1	2	3	4	5	6	7	8							
6) [illegible]	1	2	3	4	5	6	7	8							
34															
35															
36															
37															

2021-22 (01.12.21 to 19.01.22)

SLOW LEARNERS ADDITIONAL CLASSES

Sub: Mass Transfer-I; 18UCHCS01

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE)						
			IA-I (20)	IA-II (20)	IA-III (20)	CTA (10)	CIE (50)	GRADE	SIGN
81	2SD17CH011	Narasagonda Patil	07	09	07		07 23	D	
82	18CH015	Priyanka	05	01	06		09 20	E	
83	016	Manjunath Nargund	04	06	11		07 24	D	
84	019	Nameera Shaikh	07	04	09		07 23	D	
85	027	Shrihrija Agnihotri	06	04	12		07 25	C	
86	030	Vaibhavi Totad	03	04	10		07 21	E	
87	19CH008	Ganesh Keshapatti	07	05	11		07 25	C	
88	19CH0[illegible]	Lalesab. M.	05	02	08		07 20	E	
89	024	Shivakumar B.	03	00	12		07 22	E	
90	028	Yashas James.	06	03	15		08 29	C	
91									
92									
93									

2021-22 (12.30-1.30 pm)

(18UCHCS01)

STUDENTS' COURSE RECORDS: Attend

Month	12	12	12	12	12	01	01
Date	01	08	15	22	29	05	19
Class No→ / Sl. No ↓	01	02	03	04	05	06	07
81	1	2	3	4	5	6	7
82	1	2	3	4	5	6	7
83	1	2	2	3	4	5	6
84	1	2	3	4	4	5	6
85	1	2	3	4	5	6	7
86	1	2	3	4	5	6	7
87	1	2	3	4	5	6	7
88	1	2	3	4	5	5	6
89	1	2	3	3	4	5	6
90	1	2	3	4	5	6	7
91							
92							
93							

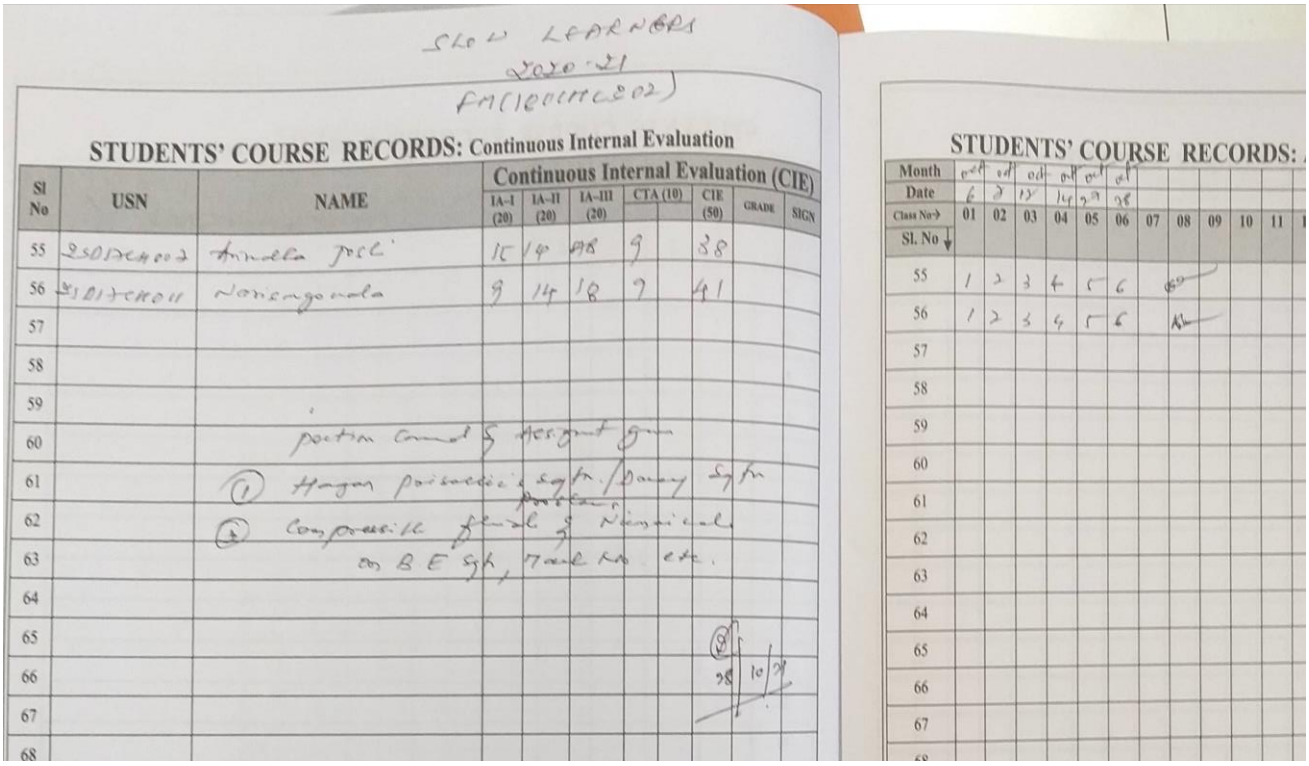
3100 - Leaders

2021-22 (Process Dynamics & Control)

STUDENTS' COURSE RECORDS: Attendance

Month	10	10	11	11	11	12	12	12	1						
Date	18	25	8	15	22	15	13	20	10						
Class No→ / Sl. No ↓	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
1) Archana	1	2	3	4	5	6	7	8	9						
2) Ayesha	1	2	2	3	4	5	6	7	8						
3) Bapure	1	2	3	4	5	6	7	8	9						
4) Dhanashree	0	1	2	3	4	5	5	6	7						
5) Aneeza	1	2	2	3	3	4	5	6	6						
6) Namrata	1	2	3	4	5	6	7	8	9						
7) Mahadev	1	2	3	4	5	6	7	8	9						
8) Ananth	0	0	0	1	2	2	3	4	4						
36															
37															

Slow Learner Classes 2020-21



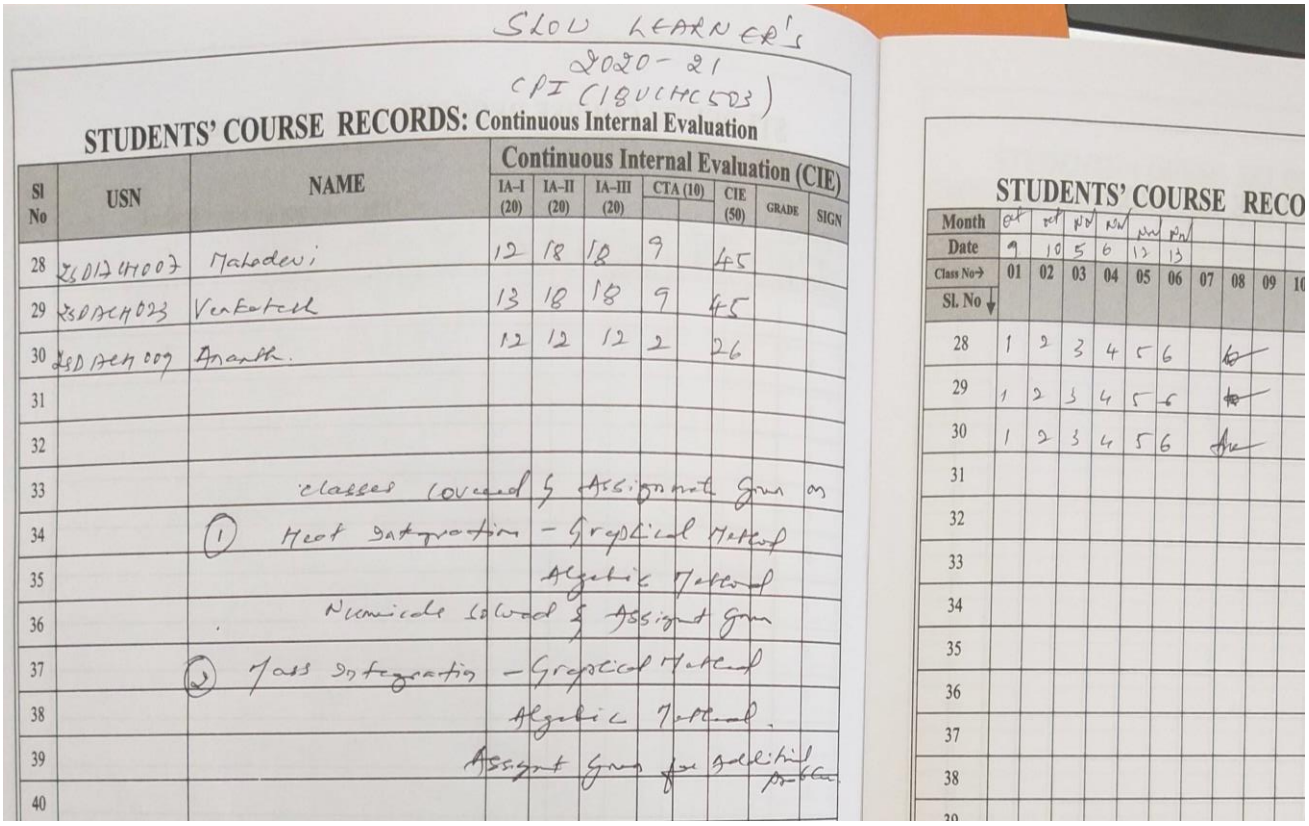
SLOW LEARNERS
2020-21
FACIBDUHCS02)

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE) IA–I (20)	IA–II (20)	IA–III (20)	CTA (10)	CIE (50)	GRADE	SIGN
55	2SD21CH002	Anuradha Patil	15	14	08	9	38		
56	2SD21CH011	Narsingonda	9	14	18	9	41		
57									
58									
59									
60		portion covered & Assignment given							
61		(1) Hagan poiseuille eqn / Darcy eqn Problems							
62		(2) Compressible flow & Numerical on BE eqn, Mach No. etc.							
63									
64									
65									
66									
67									
68									

STUDENTS' COURSE RECORDS:

Month	oct	oct	oct	oct	oct	oct						
Date	6	8	13	14	27	28						
Class No→	01	02	03	04	05	06	07	08	09	10	11	
Sl. No ↓												
55	1	2	3	4	5	6						
56	1	2	3	4	5	6						
57												
58												
59												
60												
61												
62												
63												
64												
65												
66												
67												
68												



SLOW LEARNER'S
2020-21
CPI (18UCHC503)

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE) IA–I (20)	IA–II (20)	IA–III (20)	CTA (10)	CIE (50)	GRADE	SIGN
28	2SD21CH007	Malladevi	12	18	18	9	45		
29	2SD21CH023	Venkatesh	13	18	18	9	45		
30	2SD21CH009	Ananth.	12	12	12	2	26		
31									
32									
33		classes covered & Assignment given on							
34		(1) Heat Integration - Graphical Method							
35		Algebric Method							
36		Numerical solved & Assignment given							
37		(2) Mass Integration - Graphical Method							
38		Algebric Method.							
39		Assignment given for additional problems							
40									

STUDENTS' COURSE RECO

Month	oct	oct	NV	NV	NV	NV				
Date	9	10	5	6	12	13				
Class No→	01	02	03	04	05	06	07	08	09	10
Sl. No ↓										
28	1	2	3	4	5	6				
29	1	2	3	4	5	6				
30	1	2	3	4	5	6				
31										
32										
33										
34										
35										
36										
37										
38										
39										

Slow Learner Classes 2019-20

Slow Learner Classes

III Sem Particulate Technology

Academic Year 2019-20

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

	Sl No	USN	NAME	Continuous Internal Evaluation (CIE) IA-I (30)	IA-II (30)	IA-III (30)	CTA (20)	CIE (50)	GRADE	SIGN
1.	26	2SD18CH002	Anusha Raichur	09	06	10	07	26		
2.	27	2SD18CH020	Namrata Badiganavar	08	12	13	08	33		
3.	28	2SD18CH021	Preksha Bafna	09	13	14	08	35		
4.	29	2SD18CH023	Priyanka Kurdikeri	06	12	07	08	27		
5.	30	2SD18CH025	Shashank Baligar	Ab	07	09	08	24		
6.	31	2SD18CH003	Aftasab Waghamare	09	04	13	08	30		
7.	32	2SD17CH007	Mahadevi Bijali	06	Ab	09	07	22		
8.	33	2SD17CH023	Venkatesh Rayala	06	08	08	07	23		
	34									

STUDENTS' COURSE RECORDS:

Month	09	10			11						
Date	24	1	15	22	5	12	19				
Class No→	01	02	03	04	05	06	07	08	09	10	11
Sl. No ↓											
26	A	1	2	3	4	5	6				
27	1	2	3	4	5	6	7				
28	1	2	3	4	5	6	7				
29	1	2	3	4	5	6	7				
30	1	A	2	3	4	5	6				
31	1	2	3	4	5	6	A				
32	1	2	A	3	4	5	6				
33	1	2	3	A	4	5	6				
34											
35											

2019-20 | Sub: Energy technology → management

Slow Learner. 15UCHE 507.

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE) IA-I (30)	IA-II (30)	IA-III (30)	CTA (20)	CIE (50)	GRADE	SIGN
51	2SD17CH006	Gnanakumar Bandiheal.	09	18	16				
52	2SD17CH013	Nikhilkumar Chavadi	07	12	16				
53	2SD16CH014	Manasi patil.	05	08	15				
54									
55		Gaburi deceased							
56									
57		(1) Wind energy conversion system							
58		Q1) write Betz principle of Energy converting							
59		system.							
60		Q2. Explain wind energy conversion system							
61		with neat sketch							
62		(2) Geothermal Energy conversion system							
63		Q3 How to convert Geothermal Energy?							
64		Q.4) Where are the advantages and its							
65		advantages of							
66									
67		(3) Bio mass Energy							
68		Q5 Explain Scenario of Bio-energy.							
69		Q.6 How Bio mass is converted to useful product.							
70									
71									

STUDENTS' COURSE R

Month	09	10	10	10	10	10	11	
Date	23	01	08	15	22	29	04	
Class No→	01	02	03	04	05	06	07	08
Sl. No ↓								
51	01	02	03	04	05	03	06	
52	01	02	03	04	05	06	07	
53	01	03	02	03	04	05	06	
54								
55								
56								
57								
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								

Slow Learner classes

V Sem Solution Thermodynamics

Academic Year 2019-20

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE)						
			IA–I (30)	IA–II (30)	IA–III (30)	CTA (20)	CIE (50)	GRADE	SIGN
01	2SD17CH003	Eshwargouda K.	08	04	12	07	27		
02	2SD17CH004	Karunakar S.	09	16	17	07	40		
03	2SD17CH020	Shrishail Patil	07	Ab	17	06	30		
04	2SD16CH012	Manasi Patil	05	06	10	08	24		
55									
56									
57									
58									

STUDENTS' COURSE REC

Month	10		11			12			
Date	14	21	4	18	25	02			
Class No→	01	02	03	04	05	06	07	08	09
Sl. No ↓									
51	1	2	3	4	5	6			
52	1	2	3	4	5	6			
53	1	2	3	A	4	5			
54	1	2	3	4	A	5			
55									
56									
57									

Classes for Slow Learners.

Sub: Catalyst Technology, 2019-2020, Sem: VI

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

USN	NAME	Continuous Internal Evaluation (CIE)						
		IA–I (20)	IA–II (20)	IA–III (20)	CTA (10)	CIE (50)	GRADE	SIGN
2SD16CH016	Jeevitha Naik	10	16	16	10	42		
2SD16CH011	Chetana M.	09	13	14	10	37		

Questions:

1. Discuss brief history of Catalyst Technology development.
2. Explain Controlling mechanisms involved in Catalyzed reactions.
3. Discuss procedure for Catalyst deactivation.
4. Discuss various Causes for catalyst decay
5. Explain various experimental methods for catalyst deactivation.
6. Explain BET method to det. Surface area of Catalyst.

STUDENTS' COU

Month	03		04	04	04	
Date	14	21	12	20	27	
Class No→	01	02	03	04	05	06
Sl. No ↓						
55	1	2	3	4	5	
56	0	1	1	2	3	
57						
58						
59						
60						
61						
62						
63						
64						
65						
66						
67						
68						
69						
70						
71						
72						

Sub: Chemical Technology (15CH72)

Slow learner :- 2019-20

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE) IA-I (30)	IA-II (30)	IA-III (30)	CTA (20)	CIE (50)	GRADE	SIGN
26	2SD16CH00	Abhishek. Gosaland.	01	15	12				
27	2SD16CH00	Afnan Ahamed.	AB	15	15				
28	2SD16CH00	Amol Pawar.	04	14	13				
29	2SD16CH07	Chinaiah Nayak.	06	01	15				
30	2SD16CH07	Pavitra. Bidaloni	AB	12	10				
31									
32		Questions & Contents discussed							
33									
34		Q.1) How Phosphoric acid is manufactured?							
35		process description. major engg problem							
36		Q.2) Explain manufacturers of ammonia with neat							
37		flow diagram.							
38		& major engg problem.							
39		Q.4) what are the limitation of DAP							
40		manufacturing process.							
41									
42	Q.5	Urea manufacturing process.							
43		use of urea.							
44									
45	Q.6	What are the effects of the use of							
46		Bio fertilizer.							
47									
48	Q.7	How Soap is manufactured?							
49		what is the difference between soap & detergent.							
50									

STUDENTS' COURSE R

Month	10	10	10	10	10	11	1	
Date	02	05	16	23	30	06	13	
Class No→ / Sl. No ↓	01	02	03	04	05	06	07	08
26	01	02	AB	03	04	05		
27	01	02	03	04	AB	05		
28	01	02	03	04	05	06		
29	01	02	03	04	05	06		
30	AB	01	02	03	04	05		
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
41								
42								
43								
44								
45								
46								
47								
48								
49								
50								
Extra								

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023-02-08 15:03+05:30

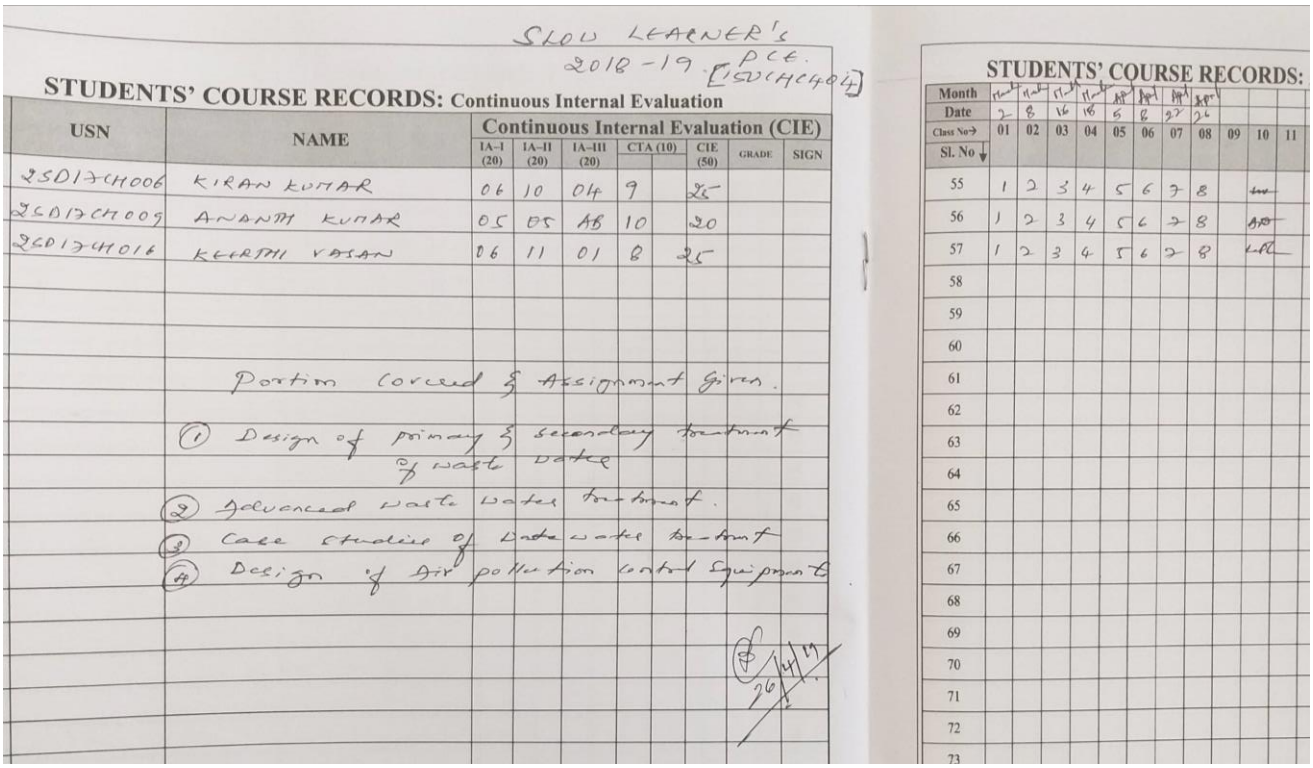
Slow Learner Classes 2018-19

Slow Learners.

(CED) 2018 - 19.

STUDENTS' COURSE RECORDS: Attendance

	Month	8	8	9	10	11	11									
	Date	9	16	13	25	8	15									
	Class No→	~~46~~	~~47~~	~~48~~	~~49~~	~~50~~	~~51~~	52	53	54	55	56	57	58	59	60
	Sl. No ↓	1	2	3	4	5	6									
1)	Ananth	1	2	2	3	4	4									
2)	Nitin	1	2	3	3	4	5									
3)	Keerthi	0	1	2	3	4	4									
4)	Shashank	1	2	3	4	5	6									
5)	Yadavendra	1	2	3	4	5	6									
	6															



SLOW LEARNER's 2018-19 PCE. [ISUCH404]

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

USN	NAME	Continuous Internal Evaluation (CIE) IA-I (20)	IA-II (20)	IA-III (20)	CTA (10)	CIE (50)	GRADE	SIGN
2SD17CH006	KIRAN KUMAR	06	10	04	9	25		
2SD17CH009	ANANTH KUMAR	05	05	AB	10	20		
2SD17CH016	KEERTHI VASAN	06	11	01	8	25		

Portion covered & Assignment Given.

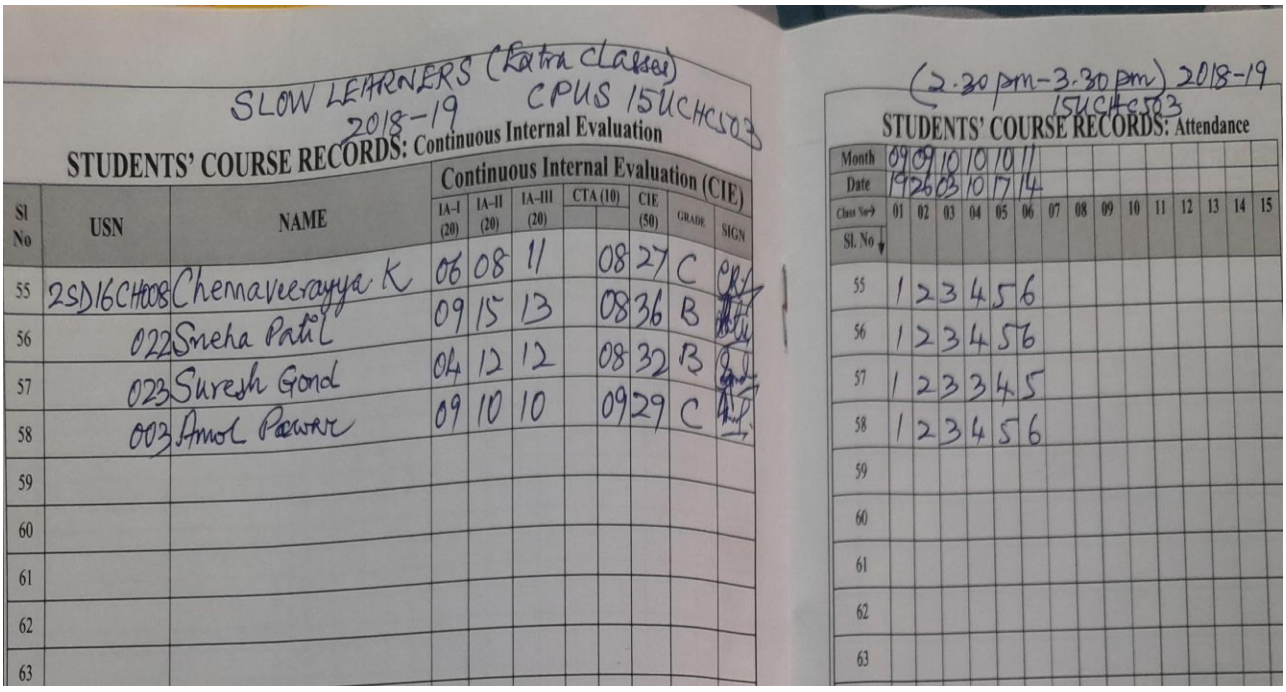
1. Design of primary & secondary treatment of waste water
2. Advanced waste water treatment.
3. Case studies of waste water treatment
4. Design of Air pollution control equipment

26/4/17

STUDENTS' COURSE RECORDS:

Month											
Date	2	8	16	18	5	8	27	24			
Class No→	01	02	03	04	05	06	07	08	09	10	11
Sl. No ↓											
55	1	2	3	4	5	6	7	8		~~AB~~	
56	1	2	3	4	5	6	7	8		AB	
57	1	2	3	4	5	6	7	8		LR	
58											
59											
60											
61											
62											
63											
64											
65											
66											
67											
68											
69											
70											
71											
72											
73											

Digitally signed by KURAKUNDI RAGHAVENDRARAO GOPINATH
Date: 2023-02-08 15:03+05:30



SLOW LEARNERS (Extra classes) CPUS 15UCHC503 2018-19

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE) IA-I (20)	IA-II (20)	IA-III (20)	CTA (10)	CIE (50)	GRADE	SIGN
55	2SD16CH008	Chenaveerayya K	06	08	11		08 27	C	
56	022	Sneha Patil	09	15	13		08 36	B	
57	023	Suresh Gond	04	12	12		08 32	B	
58	003	Amol Pawar	09	10	10		09 29	C	
59									
60									
61									
62									
63									

(2.30 pm-3.30 pm) 2018-19 15UCHC503

STUDENTS' COURSE RECORDS: Attendance

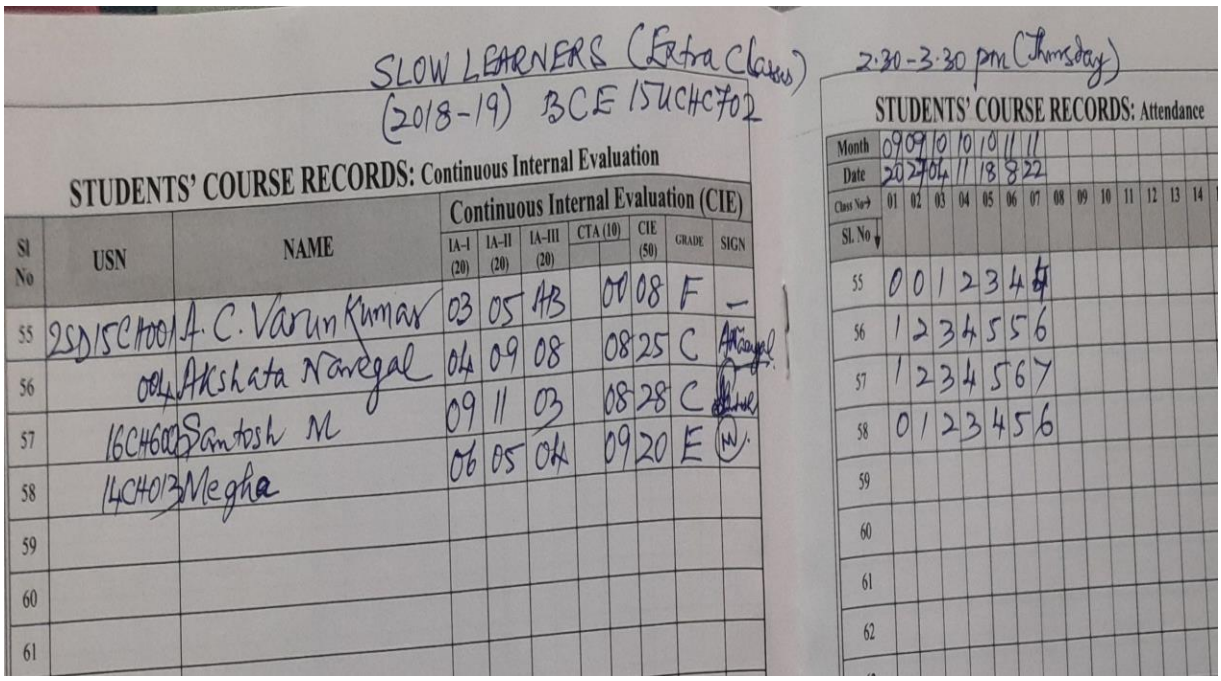
Month	09	09	10	10	10	11									
Date	19	26	03	10	17	14									
Class No→ / Sl. No ↓	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
55	1	2	3	4	5	6									
56	1	2	3	4	5	6									
57	1	2	3	3	4	5									
58	1	2	3	4	5	6									
59															
60															
61															
62															
63															

QUESTIONS

ACADEMIC YEAR: 2018-19

SUB: CHEMICAL PLANT UTILITIES AND SAFETY
Code: 15UCHC503 Sem: V

1. Highlight briefly on any five considerations to be made for the selection of an utility in a chemical plant.
2. What are the reasons for a boiler to corrode? Further, interpret briefly on the methods used in the degasification of boiler feed water.
3. With a neat flowsheet, explain the industry water circuit.
4. Explain the use and distribution of steam citing direct applications and in process reactions.
5. Citing chemical reactions, explain hot lime soda process used in the treament of boiler feed water.
6. Using a T-S diagram, show that the COP of a refrigerator depends only on the temperature levels and is independent of working fluid.
7. Write on the refrigerants, the types and *any four* properties considered for their selection.
8. Interpret briefly on *any four* factors that contribute to the special process hazards.
9. Reproduce a neat sketch showing main parts of a reciprocating air compressor and giving *one line* importance of each component part.
10. With a neat flow sheet labeling all the components, represent the process of dehydration of air by PSA. State *one line* importance of each component part used?
    Case studies: Bhopal Gas tragedy, Flixborough disaster, Seveso disaster etc.



SLOW LEARNERS (Extra Classes) 2:30-3:30 pm (Thursday)
(2018-19) BCE 15UCHC702

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE) IA-I (20)	IA-II (20)	IA-III (20)	CTA (10)	CIE (50)	GRADE	SIGN
55	2SD15CH001	A. C. Varun Kumar	03	05	AB	00	08	F	–
56	004	Akshata Navegal	04	09	08	08	25	C	
57	16CH600	Santosh M	09	11	03	08	28	C	
58	14CH013	Megha	06	05	04	09	20	E	
59									
60									
61									

STUDENTS' COURSE RECORDS: Attendance

Month	09	09	10	10	10	11	11							
Date	20	27	04	11	18	8	22							
Class No→	01	02	03	04	05	06	07	08	09	10	11	12	13	14
Sl. No ↓														
55	0	0	1	2	3	4	5							
56	1	2	3	4	5	5	6							
57	1	2	3	4	5	6	7							
58	0	1	2	3	4	5	6							
59														
60														
61														
62														

QUESTIONS

ACADEMIC YEAR: 2018-19

SUB: BIOCHEMICAL ENGINEERING
Code: 15UCHC702 Sem: VII

Describe the following:

1. Cell structure (prokaryotesand eukaryotes) Figure
2. Cell fractionation technique
3. Control of microrganisms
4. Struture of DNA
5. Carbohydrates and lipids
6. Michaelis Menten kinetics
7. Evaluation of parameters
8. Inhibition kinetics
9. Immobilized enzyme technology
10. Monod's growth kinetics

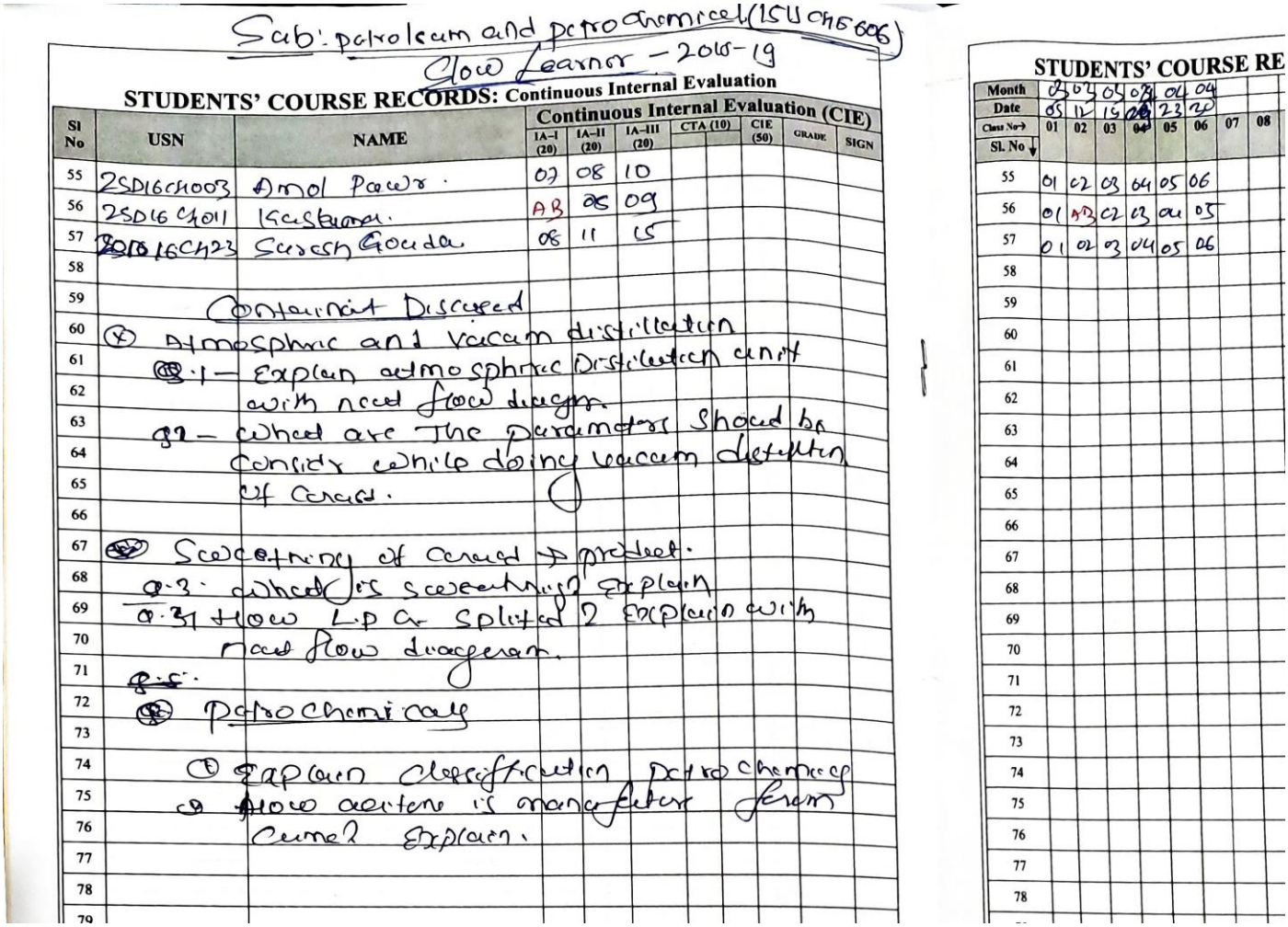
11. Cell culturing

12. Transient growth kinetics

13. Reactors and their configurations

14. Operation and maintenance of typical aseptic aerobic fermentation process

15. Product recovery operations (sequence)



Sub: petroleum and petrochemical (15CH665)

Slow Learner – 2018-19

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sl No	USN	NAME	Continuous Internal Evaluation (CIE) IA–I (20)	IA–II (20)	IA–III (20)	CTA (10)	CIE (50)	GRADE	SIGN
55	2SD16CH003	Amol Pawar.	07	08	10				
56	2SD16CH011	Ikashamma.	AB	05	09				
57	2SD16CH23	Suresh Gouda.	08	11	15				
58									
59									
60									
61									
62									
63									
64									
65									
66									
67									
68									
69									
70									
71									
72									
73									
74									
75									
76									
77									
78									
79									

Content Discussed

① Atmospheric and vacuum distillation

Q.1 – Explain atmospheric Distillation unit with need flow diagram.

Q2 – What are the parameters should be consider while doing vacuum distillation of crude.

② Separation of crude & product.

Q.3. What is separation? Explain

Q.3 How L-P & splitter? Explain with need flow diagram.

Q.5.

③ Petrochemicals

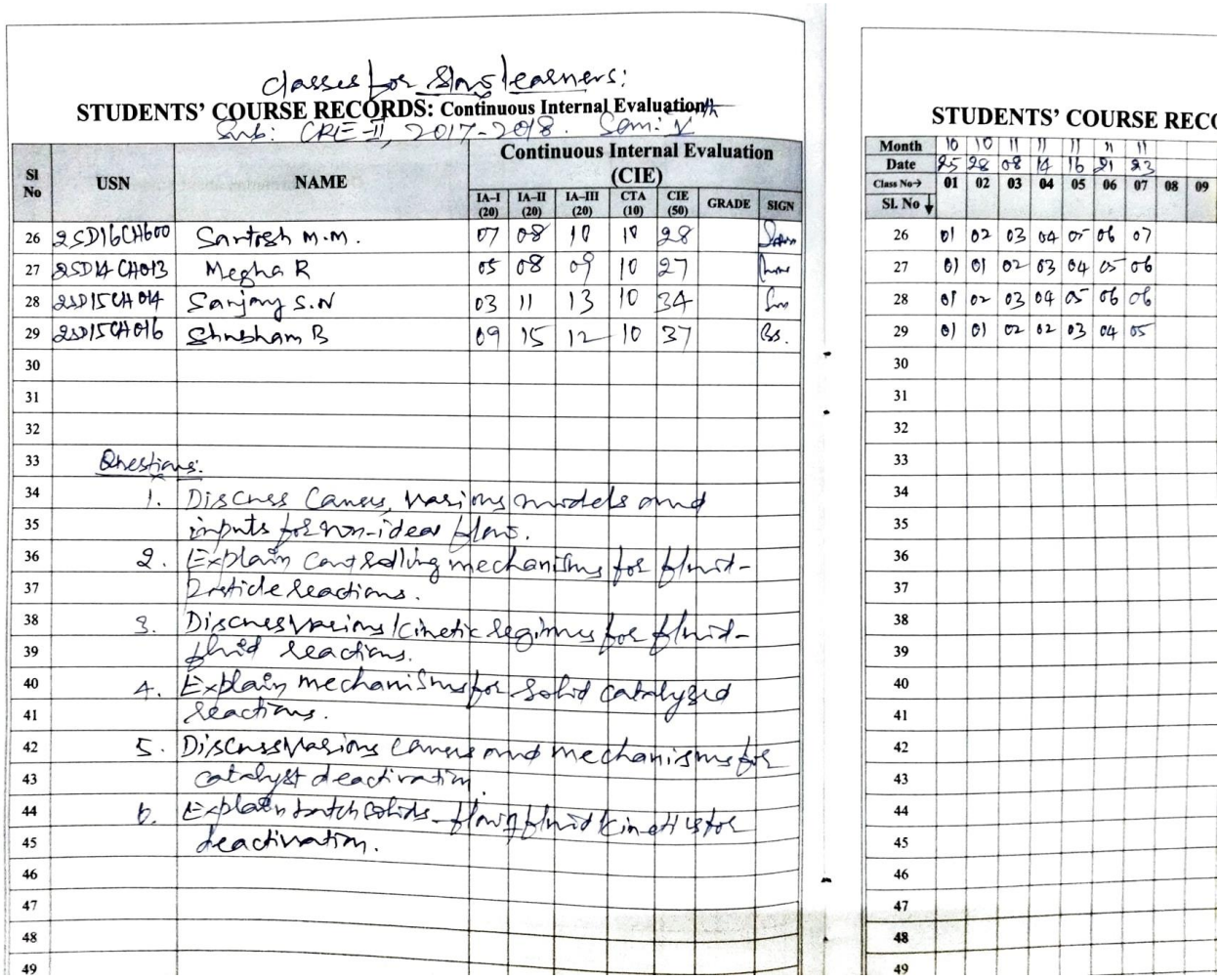
① Explain classification Petrochemicals

② How octane is manufacture from crude? Explain.

STUDENTS' COURSE RE

Month	03	04	05	08	04	04		
Date	05	12	15	22	23	20		
Class No→ / Sl. No ↓	01	02	03	04	05	06	07	08
55	01	02	03	04	05	06		
56	01	AB	02	03	04	05		
57	01	02	03	04	05	06		
58								
59								
60								
61								
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								

Slow Learner Classes 2017-18



Classes for Slow learners:

STUDENTS' COURSE RECORDS: Continuous Internal Evaluation

Sub: CRE-II, 2017-2018. Sem: V

Sl No	USN	NAME	Continuous Internal Evaluation (CIE)						
			IA–I (20)	IA–II (20)	IA–III (20)	CTA (10)	CIE (50)	GRADE	SIGN
26	2SD16CH600	Santosh M.M.	07	08	10	10	28		Santosh
27	2SD14CH013	Megha R	05	08	09	10	27		Megha
28	2SD15CH014	Sanjay S.N	03	11	13	10	34		Sanjay
29	2SD15CH016	Shubham B	09	15	12	10	37		Shubham
30									
31									
32									
33	Questions:								
34	1.	Discuss Causes, various models and							
35		inputs for non-ideal flows.							
36	2.	Explain controlling mechanisms for fluid-							
37		Particle reactions.							
38	3.	Discuss various kinetic regimes for fluid-							
39		fluid reactions.							
40	4.	Explain mechanisms for solid catalysed							
41		reactions.							
42	5.	Discuss various causes and mechanisms for							
43		catalyst deactivation.							
44	6.	Explain batch solids - flowing fluid kinetics for							
45		deactivation.							
46									
47									
48									
49									

STUDENTS' COURSE REC

Month	10	10	11	11	11	11	11		
Date	25	28	08	18	16	21	23		
Class No→	01	02	03	04	05	06	07	08	09
Sl. No ↓									
26	01	02	03	04	05	06	07		
27	01	01	02	03	04	05	06		
28	01	02	03	04	05	06	06		
29	01	01	02	02	03	04	05		
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
46									
47									
48									
49									