

# SRI BHARATHI

ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Kaikkurichi, Pudukkottai -622 303

www.sbec.edu.in

# **NAAC DOCUMENTS**



Quality Indicator Frame Work

# Criterion – 1 CURRICULAR ASPECTS

Submitted by

IQAC
Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criterion 1	Curricular Aspects	100
CIICIIOII I	Carricalar rispects	100

- 1.1 Curricular Planning and Implementation(20)
- 1.1.1 The Institution ensures effective curriculum planning and delivery through a well-planned and documented process including Academic calendar and conduct of continuous internal Assessment

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S.No	Description
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(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

#### DEPARTMENT OF SCIENCE AND HUMANITIES

#### PREFACE OF THE COURSE FILE

Batch

: 2018-2022

Academic Year

: 2018-2019 / ODD

Program

: COMPUTER SCIENCE AND ENGINEERING

Year & Semester

: 1st Year / 1st Semester / 'A' Section

Course Code

: CY8151

NBA Course Code: C104

Name of the Course

: ENGINEERING CHEMISTRY

Faculty in-charge

: Mrs.T.ANNALAKSHMI

Signature of the Faculty Incharge

DI S.THILAGAVATHI M.E.,Ph.D.,

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN A

PUDUKKOTTAI - 622 303.

(Approved by AICTE, New Delhi and affiliated to Anna University, Chennai)

#### DEPARTMENT OF SCIENCE AND HUMANITIES

#### REVIEW OF COURSE FILE

(To be pasted on the inner side of the file-backside).(#-State Yes/No.)

S.No	Details Date:	R-I-*	R-II- *&	R-III-	R-IV- *&\$	R-V- *&\$@
1.	Preface of the course file	yes				
2.	Vision, Mission, PEOs, POs, PSOs, Blooms taxonomy	yes				-
3.	Subject handlers of yesteryears					
4.	Timetable/Workload of the staff – Distribution of teaching load – Roles and Responsibilities	yes				
5.	Syllabus signed by staff & HoD	yes		1		
6.	Lecture Schedule signed by staff & HoD					
7.	Course Committee meeting circular and minutes	yes yes				
8.	Identification of Curricular gap and Content Beyond the syllabus	70				
9.	Self-study topics	yes				
10.	Previous AU Question papers	yes		1		
11.	Unit wise Q&A and Objective type questions	yes yes				
12.	Unit wise course material	yes				
13.	Assignment question paper with sample answer sheets and mark entry		yes			
14.	Tutorial question paper with key and mark entry		yes			
15.	Class test/IA test Q Paper with Key, sample answer papers and mark entry		yes		,	
16.	IA Test- result analysis-CAP-evidence-root cause analysis.		903			
17.	Retest -Q paper-Attendance-marks		yes			
18.	AU Web portal entry sheet		yes			
19.	Very poor performance in first two tests-action takencommunication to parents-evidence					
20.	Absence for two tests-action taken-communication to parents-evidence.					
21.	Indiscipline of student reported, if any					
22.	Special class/coaching class/remedial class/attendance-CAP					
23.	Conduct of Seminar, Quizzes - proof					
24.	Content beyond the syllabus - proof			yes		
25.	Student feedback on faculty			yes		A .
26.	Course end survey					
27.	Internal Assessment sheet		•	yes		
28.	AU question paper with students feedback	Fig.		. 41		
29.	Discrepancy of the question paper and correspondence, if any					
30.	AU result analysis-Details of arrear students.					
31.	AU grade sheet				•	yes
32.	CO – PO & PSO attainment sheet					yes
	Signature of Course handling faculty	ales	deg	Olei	die	Mag
1	Signature of HoD/S&H  OF STHILAGAVATHI M.E.,		000	ol.º.	00	01 0



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#### **DEPARTMENT OF SCIENCE AND HUMANITIES**

# ACADEMIC YEAR (2018 – 2019) -ODD SEMESTER

#### INDIVIDUAL STAFF WORKLOAD

S. NO	STAFF NAME	SUBJECT CODE & NAME	YEAR & DEPT	NO OF HOURS	TOTAL HOURS
1	Mrs.N.Vithya	CS6702-Graph theory Applications	IV /CSE	6	
		MA6351- Discrete Mathematics	II / CSE&IT	6	18
		MA8151-Engineering Mathematics-I	I-(SEC-A)/ CSE	6	
2	Ms.S.Poonguzhali	CS6704 - Resource Management	IV /CSE		
		Techniques		6	10
		MA6566-Discrete Mathematics	III/CSE	6	18
		MA6351-Transform and PDE	II /CIVIL&EEE	6	
3	Mrs.M.Vanitha	MA8352-Linear Algebra and PDE	II / ECE	6	
		MA8151- Engineering Mathematics-I	I-(SEC-B)	6	12
			CIVIL,ECE&EEE		
4	Mrs.R.Saratha	PH8151-Engineering Physics	I-SEC-A /CSE	05	05
5	Mrs.V.Vinojini BS8161-Physics Laboratory		I (SEC-A&SEC-B) CIVIL,CSE,ECE&EE E	06	06
6	Mrs.T.Renugadevi	PH8151-Engineering Physics	I-SEC-B CIVIL,ECE&EEE	05	05
	Ms.T.Annalakshmi	CY8151-Engineering Chemistry	I SEC-A /CSE	05	0.0
		BS8161-Chemistry Laboratory	I SEC-A/CSE	03	08
7	Mrs.S.Renugadevi	CY8151-Engineering Chemistry	I SEC-B/ CIVIL,ECE&EEE	05	
		BS8161-Chemistry Laboratory	I SEC-B/ CIVIL,ECE&EEE	03	14
		GE6351-Environmental Science and Engineering	III /ECE	6	
9	Mr.S.Ramesh Raja	HS8151-Communicative English	I-SEC-A/CSE	05	
		GE2321-Communication Skill Laboratory	III/CIVIL,EEE,IT	3	10
		HS8381-Interpersonal Skills/Listening &Speaking	II/CSE	2	
10	Mrs.P.Alagumathi	HS8151-Communicative English	I-SEC-B CIVIL,ECE&EEE	05	
		HS8381-Interpersonal Skills/Listening &Speaking	II/CIVIL,ECE	04	09
		02000		^	

HOD / S&H

SRIBHARATHI ENGINEERING

COLLEGE FOR WOMEN

HOD/SAMKURICHI

TOTAL - 622 303

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SRI BHARATHI ENGINEERING

COLLEGE FOR WOMEN

Kaikkurchi - 622 303, Pudukkottai Dt.

SRI BHARAT FLED ME COLLEGENCIPAL

# CY3151 ENGINEERING CHEMISTRY

LTPC 3003

#### UNIT I WATER AND ITS TREATMENT

Hardness of water - types - expression of hardness - units - estimation of hardness of water by EDTA numerical problems - boiler troubles (scale and sludge) - treatment of boiler feed water - Internal treatment (phosphate, colloidal, sodium aluminate and calgon conditioning) external treatment - Ion exchange process, zeolite process - desalination of brackish water - Reverse Osmosis.

# UNIT II SURFACE CHEMISTRY AND CATALYSIS

9

Adsorption: Types of adsorption - adsorption of gases on solids - adsorption of solute from solutions adsorption isotherms - Freundlich's adsorption isotherm - Langmuir's adsorption isotherm - contact theory - kinetics of surface reactions, unimolecular reactions, Langmuir - applications of adsorption on pollution abatement. Catalysis: Catalyst - types of catalysis - criteria - autocatalysis - catalytic poisoning and catalytic promoters - acid base catalysis - applications (catalytic convertor) - enzyme catalysis- Michaelis - Menten equation.

#### UNIT III ALLOYS AND PHASE RULE

Alloys: Introduction- Definition- properties of alloys- significance of alloying, functions and effect of alloying elements- Nichrome and stainless steel (18/8) - heat treatment of steel. Phase rule: Introduction, definition of terms with examples, one component system - water system - reduced phase rule - thermal analysis and cooling curves - two component systems - lead-silver system- Pattinson process.

#### UNIT IV FUELS AND COMBUSTION

9

Fuels: Introduction - classification of fuels - coal - analysis of coal (proximate and ultimate) carbonization - manufacture of metallurgical coke (Otto Hoffmann method) - petroleum - manufacture of synthetic petrol (Bergius process) - knocking - octane number - diesel oil - cetane number - natural gas - compressed natural gas (CNG) - liquefied petroleum gases (LPG) - power alcohol and biodiesel. Combustion of fuels: Introduction - calorific value - higher and lower calorific values- theoretical calculation of calorific value - ignition temperature - spontaneous ignition temperature - explosive range - flue gas analysis (ORSAT Method).

# UNIT V ENERGY SOURCES AND STORAGE DEVICES

9

Nuclear fission - controlled nuclear fission - nuclear fusion - differences between nuclear fission and fusion - nuclear chain reactions - nuclear energy - light water nuclear power plant - breeder reactor solar energy conversion - solar cells - wind energy. Batteries, fuel cells and supercapacitors: Types of batteries - primary battery (dry cell) secondary battery (lead acid battery, lithium-ion-battery) fuel cells - H2-O2 fuel cell.

**TOTAL: 45 PERIODS** 

Dr. S.THILAGAVATHI M.E. Ph.O. PRINCIPAL



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#### DEPARTMENT OF SCIENCE AND HUMANITIES

#### **COURSE PLAN**

Subject code

: CY8151

Year / Semester/Branch : I/ I/CSE

Subject Name

: ENGINEERING CHEMISTRY

Batch

: 2018-2022

Staff Name

: T.ANNALAKSHMI

Academic year

: 2018-2019

#### **COURSE OBJECTIVES:**

- To make the students conversant with boiler feed water requirements, related problems and water treatment techniques.
- To develop an understanding of the basic concepts of phase rule and its applications to single and two component systems and appreciate the purpose and significance of alloys.
- Preparation, properties and applications of engineering materials.
- Types of fuels, calorific value calculations, manufacture of solid, liquid and gaseous fuels.
- Principles and generation of energy in batteries, nuclear reactors, solar cells, wind mills and fuel cells.

#### **TEXT BOOKS:**

- 1. S. S. Dara and S. S. Umare, "A Textbook of Engineering Chemistry", S. Chand & Company LTD, New Delhi, 2015
- 2. P. C. Jain and Monika Jain, "Engineering Chemistry" Dhanpat Rai Publishing Company (P) LTD, New Delhi, 2015
- 3. S. Vairam, P. Kalyani and Suba Ramesh, "Engineering Chemistry", Wiley India PVT, LTD, New Delhi, 2013.

#### **REFERENCES:**

- 1. Friedrich Emich, "Engineering Chemistry", Scientific International PVT, LTD, New Delhi, 2014.
- 2. Prasanta Rath, "Engineering Chemistry", Cengage Learning India PVT, LTD, Delhi, 2015.
- 3. Shikha Agarwal, "Engineering Chemistry-Fundamentals and Applications", Cambridge University Press, Delhi, 2015

#### WEB ADDRESS

https://link.springer.com/chapter/10.1007/978-94-011-7352-0 7

https://www.publichealthnotes.com/importance-of-water-purification-and-different-methods/

https://www.electronicsforu.com/technology-trends/learn-electronics/different-types-of-batteries

https://en.wikipedia.org/wiki/Solar energy conversion

https://www.encyclopedie-energie.org/en/desalination-sea-water-brackish-water/

BB **BLACK BOARD** 

PPT POWER POINT PRESENTATION

Dr. S.THILAGAVATHI M.E., Ph.D.,

PRINCIPAL SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN** 

Kaikkurchi - 622 303, Pudukkottai Dt.

#### **CY3151 ENGINEERING CHEMISTRY**

LTPC

#### UNIT I WATER AND ITS TREATMENT

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Hardness of water – types – expression of hardness – units – estimation of hardness of water by EDTA – numerical problems – boiler troubles (scale and sludge) – treatment of boiler feed water – Internal treatment (phosphate, colloidal, sodium aluminate and calgon conditioning) external treatment – Ion exchange process, zeolite process – desalination of brackish water - Reverse Osmosis.

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C

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#### UNIT V ENERGY SOURCES AND STORAGE DEVICES

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Nuclear fission - controlled nuclear fission - nuclear fusion - differences between nuclear fission and fusion - nuclear chain reactions - nuclear energy - light water nuclear power plant - breeder reactor - solar energy conversion - solar cells - wind energy. Batteries, fuel cells and supercapacitors: Types of batteries – primary battery (dry cell) secondary battery (lead acid battery, lithium-ion-battery) fuel cells – H2-O2 fuel cell.

**TOTAL: 45 PERIODS** 

Dr. S.THILAGAVATHI M.E., Ph. D.,
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Topic No	Topic Name	T/R* Book	Page No	Teaching Methodology	No of periods required	Cumulative periods
UNIT-I	WATER A	ND ITS TI	REATMENT		11(12)	(9)
1.	Hardness of water, types Importance of water and its purification methods (CBS)	T1 W2	1.1-1.2	BB PPT	recensión recense recensión	1
2.	expression of hardness ,units , estimation of hardness of water by EDTA	T1	1.2-1.6	BB	Britagist	2
3.	numerical problems, boiler troubles (scale and sludge)	T1	1.6-1.11	BB	belly	3
4.	boiler troubles (scale and sludge)	T1	1.12-1.16	ВВ	negaziri ke na 1	4
5.	treatment of boiler feed water	T1	1.17-1.18	ВВ	6 SR48	5
6.	Internal treatment (phosphate, colloidal, sodium aluminate and calgon conditioning)	T1	1.18-1.22	BB	gespläd	6
7.	external treatment ,Ion exchange process	T1	1.22-1.27	BB	eta ma	7
8.	zeolite process, desalination of brackish water	W5	1.27-1.30	PPT	balan 1	8
9.	Reverse Osmosis	T1 .	1.30-1.35	BB	awata i	9

#### LEARNING OUTCOME:

#### At the end of unit, the students will be able to

• Understand the importance of water and its purification.

UNIT	II SURFACE CH	EMISTRY A	AND CATALY	SIS	में छाजारा है	(9)
10.	Adsorption: Types of adsorption Knowledge about surface chemistry and catalysis (CBS)	T2	32-38	BB PPT	1 1 1 1 1	10
11.	adsorption of gases on solids – adsorption of solute fromsolutions	T2	39-45	BB		11
12.	adsorption isotherms – Freundlich's adsorption isotherm ,Langmuir's adsorption isotherm	T2	45-48	BB	tions 100	12
13.	contact theory – kinetics of surface reactions, unimolecular reactions	R1	85-89	BB	historia h	13
14.	Langmuir - applications of adsorption on pollution abatement	R1	90-94	BB	1011010101	14
15.	Catalysis: Catalyst, types of catalysis – criteria – autocatalysis, catalytic poisoning and catalytic promoters	R4	78-83	ings BB is	of grand	15
16.	acid base catalysis, applications (catalytic convertor	R4	84-90	PPT	obsing t	16
17.	enzyme catalysis	R4	90-94	BB	ensin <b>t</b> rico.	17
18.	Michaelis, Menten equation	T4	95-98	BB		18

**LEARNING OUTCOME:** 

At the end of unit, the students will be able to PRINCIPAL

Many 8	Understand the importance of surface chemis	if y and cal	aiysis	Waynoll and a	l of	igoT
UNIT -	- III ALLOYS A	AND PHA	SE RULE			(9)
19.	Alloys: Introduction- Definition- properties of alloys corrosion of metal alloys and importance in engineering applications in all disciplines.(CBS)	R4	45-48	· PPT	tanti Santi Areati Santa Santa	19
20.	significance of alloying, functions and effect of alloying elements	R4	49-52	BB	ismur <b>1</b>	20
21.	Nichrome and stainless steel (18/8)	T1	3.10-3.12	BB		21
22.	heat treatment of steel Basic concerts of alloys and phase rule. (CBS)	T <sub>1</sub> T1	3.12-3.15	PPT	niesti 1	22
23.	Phase rule: Introduction, definition of terms with examples	T1	4.1-4.2	BB	1	23
24.	one component system -water system	T1	4.2-4.8	BB	10	24
25.	reduced phase rule	T1	4.8-4.10	BB		25
26.	thermal analysis and cooling curves	T1	4.10-4.12	BB		26
27.	two component systems - lead-silver system- Pattinson process.	T1	4.12-4.14	PPT		27

#### **LEARNING OUTCOME:**

#### At the end of unit, the students will be able to

• Strong foundational knowledge in phase rule and Alloys.

UNI	T-IV FUELS AND COM	IBUSTIC	N			(9)
28.	Fuels: Introduction: Classification of fuels; Coal and coke	R4	125-127	BB	1	28
29.	analysis of coal (proximate and ultimate)	R4	128-130	BB	1	29
30.	carbonization - manufacture of metallurgical coke (Otto Hoffmann method)	W1	85-89	ВВ		30
31.	petroleum - manufacture of synthetic petrol (Bergius process)	T2	89-91	BB	1	31
32.	knocking, octane number, diesel oil, cetane number	R4	145-148	BB	1	32
33.	natural gas - compressed natural gas (CNG), liquefied petroleum gases (LPG) power alcohol and biodiesel	R3	75-81	PPT		33
34.	Combustion of fuels: Introduction ,calorific value , higher and lower calorific values	R3	81-85	BB	0.6001	34
35.	ignition temperature, spontaneous explosive range Knowledge about basic in fuels and combustion (CBS)	R3	86-89	PPT	Saffort 17.5 × 17.55 A	35

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**36.** flue gas analysis (ORSAT Method) R3/T2 90-93 BB 1 36

#### LEARNING OUTCOME:

#### At the end of unit, the students will be able to

• Understand the importance of fuels and combustion.

	UNIT-V ENERGY SOURCES AN	ND STOKA	GE DEVICES			(9)
37.	Nuclear fission - controlled nuclear fission	R3	56-57	BB	1	37
38.	nuclear fusion - differences between nuclear fission and fusion	Т3	221-225	BB	1	38
39.	nuclear chain reactions - nuclear energy	Т3	225-229	ВВ	1	39
40.	light water nuclear power plant - breeder reactor	Т3	230-235	PPT	<u>s</u> 1	40
41.	solar energy conversion - solar cells, wind energy	W4	125-128	BB	1	41
42.	Batteries, fuel cells and supercapacitors	R3	128-130	BB	1	42
43.	Types of batteries – primary battery (dry cell)	W3	275-279	PPT	1	43
44.	secondary battery (lead acid battery, lithium-ion-battery) fuel cells	R4	279-282	BB	1	44
45.	H2-O2 fuel cell Basic concept of energy sources and storage devices.(CBS)	R4	283-288	BB PPT	1	45

#### **LEARNING OUTCOME:**

H22 \ (10)

#### At the end of unit, the students will be able to

• Comprehend and apply energy sources and applications of energy storage devices.

#### **COURSE OUTCOMES:**

At the end of the course, the students will be able:

- C104.1: Summarize the water related problems in boilers and their treatment techniques.
- C104.2: Discuss the applications of adsorption in the field of water and air pollution abatement.
- C104.3: Discuss the types of catalysis and the mechanism of enzyme catalysis
- C104.4: Associate phase rule in the alloying and the behaviour of one component and two components Systems using phase diagram
- C104.5: Explain various types of fuels, their manufacturing processes and calculation of calorific theoretically
- C104.6: Summarize the principles and generation of energy in batteries, nuclear reactors, solar cells, Wind mills and fuel cells

#### CONTENT BEYOND THE SYLLABUS

- > Importance of water and its purification methods
- Knowledge about surface chemistry and catalysis
- Basic concerts of alloys and phase rule.
- > corrosion of metal alloys and importance in engineering applications in all disciplines.
- Knowledge about basic in fuels and combustion.
- Basic concept of energy sources and storage devices . Dr. S.THILAGAVATHI M.E., Ph.D.

#### CONTINUES INTERNAL ASSESSMENT DETAILS

ASSESMENT NUMBER	I of side ad	aw sinsoms, sing II am is ning some
UNIT	1 <sup>st</sup> ,2 <sup>nd</sup> ,3 <sup>rd</sup> (Half)	3 <sup>rd</sup> (Half),4 <sup>th</sup> & 5 <sup>th</sup> Units

ASSIGNMET NUMBER	UNIT	ASSIGNMENT QUESTIONS/TOPIC	DEADLINE
1	I	1.estimation of hardness of water by EDTA     2. Revers osmosis	21/10/2018
2	II	1.Freundlich's adsorption isotherm 2.Catalyst – types of catalysis, criteria, autocatalysis, catalytic poisoning and catalytic promoters.	07/11/2018
3	Ш	1.stainless steel and explain its types.     2. condensed phase rule, two-component system	09/12/2019
4	III	Proximate,ultimate analysis of coal     Problems based on fuels.	02/01/2019
5		Problems based energy sources.     Importance of battery	22/01/2019

PREPARED BY

Mrs. T.ANNALAKSHMI, AP/CHEMISTRY

**VERIFIED BY** 

SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN** KAIKKURICHI

PUDUKKOTTAI - 622 303.

APPROVED BY

PRINCIPAL PRINCIPAL

SRI BHARATHI ENGINEERING

**COLLEGE FOR WOMEN** 

KAIKKURICHI - 622 303.

PRINCIPAL SRI BHARATHI ENGINEERING

**COLLEGE FOR WOMEN** Kaikkurchi - 622 303, Pudukkotiai DL

Dr. S.THILAGAVATHLM.E., Ph.D.,

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#### DEPARTMENT OF SCIENCE AND HUMANITIES

Ref: SBECW/ S&H/ Course committee meeting / EC/ 2018-2019 (ODD)

DATE: 03.09.2018

#### **COURSE COMMITTEE MEETING-** CY8151: Engineering chemistry

ACADEMIC YEAR: 2018-2019 (ODD)

**PROGRAM** : B.E –CSE

**REGULATION: 2017** 

SEM

:01

**DATE OF MEETING:** 03.09.2018

TIME

: 10.00AM

VENUE

: S&H Dept. HoD Cabin

Members Present

#### Table.1 Course committee members

S.No.	Name of the faculty & Designation, Program	Sem/Sec/Program	Signature
1.	Mrs.T.ANNALAKSHMI, HoD/S&H - Course coordinator	I SEM/A/CSE	
2.	Mrs.S.RENUGADEVI AP/Chem	I SEM/B/ECE,CIVIL,EEE	

HOD welcomed all the members present

1. Unit wise syllabus discussed. Nature of qualitative, quantitative, problematic, theoretical concepts etc. have been discussed.

Table.2 Allocation of Period

Number of period	Total number of Peroids
per unit	Management states
09	45

- 2. Vision and mission of the college, department discussed. POs, PEOs, PSOs discussed.
- 3. Course outcomes finalized for each units.

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#### Table.3 Course Outcomes

CO	Course Outcomes	POs	PSOs
C104.1	Summarize the water related problems in boilers and their treatment techniques.	1,2,3,4,7,10,12	1
C104.2	Discuss the applications of adsorption in the field of water and air pollution abatement.	1,2,3,4,7,10,12	1
C104.3	Discuss the types of catalysis and the mechanism of enzyme catalysis	1,2,3,4,7,10,12	1
C104.4	Associate phase rule in the alloying and the behaviour of one component and two component systems using phase diagram	1,2,3,4,7,10,12	1
C104.5	Explain various types of fuels, their manufacturing processes and calculation of calorific theoretically	1,2,3,4,7,10,12	1
C104.6	Summarize the principles and generation of energy in batteries , puclear reactors, solar cells, wind mills and fuel cells	1,2,3,4,7,10,12	1

Mapping of COs with POs and PSOs is done with suitable correlation levels (1 for low, 2 for medium, 3 for high, "-" for no correlation, before content beyond syllabus)

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#### Table.4 Mapping of COs, C, PSOs with POs- before CBS.

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
C104.1	3	2	1	1	cion a	inc.gi	1	-	-	1	engo ) V	1	1	-
C104.2	3	2	1	1	-	-	1	-	-	1	-	1	1	-
C104.3	3	3	1	1	-	-	1	-	-	1	-	1	1	-
C104.4	3	2	1	1	17210	i HAA	1	-	-	1 30	0.38	1	s,a bos	9 -
C104.5	3	2	1	1	-	-	1	-	-	1	017	1	1	8
C104.6	3	2	1	1	_	-	1	-	-	1	-	1	. 1	-

5. Identification of content beyond syllabus- curricular gaps are identified considering industry needs, employers feedback, alumni feedback, government policy on industrialization, new investments by private/public sectors, societal needs and level of correlation of COs with POs and PSOs. Accordingly the details of CBS added and its correlation is given below.

Table.5 Identification of content beyond syllabus

Content beyond syllabus added	POs strengthened/Vacant filled	CO/Unit
corrosion of metal alloys and importance in engineering	PO4(1) strengthened	C104.2/ II
applications in all disciplines	and the state of t	

6. Mapping of COs with POs, PSOs- after CBS.

Table.6 Mapping of COs, C, PSOs with POs- after CBS.

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
							. KING	11.7	DI, ITOMI	Park Street	SALESSEE OF	143147		
C104.1	3	2	1	1	-	-	1	-	-	1	-	1	1	-
C104.2	3	2	1	*2	O Fra	12 E sl	1	-	-	1	-	1	1	-
C104.3	3	2	1	1	-	-	1	-	-	1	-	1	1	-
C104.4	3	2	1	1	204	los <u>t</u> eol	1	- 1	-	1	-	1	100	-
C104.5	3	2	ini <b>l</b> or i	god ins	0.7 <b>-</b> 001	baş ey	ho1	-16	ng <del>L</del> ea,	(va. <b>1</b> .164)	ad-aci	sm <b>1</b> m2	1401	<u></u>
C104.6	3	2	_ 	vall be	8. 17 <b>-</b> 16 y	to-bla	1	no-ity	a, be 10	anollayi	ggi-cili	Pistuss	(100)	7 -
C104	3	2	1	1	-	-	1	-	-	1	<u>.</u> .dt1	1******	1	

- 7. Content beyond syllabus is thus identified based on the above. Plan for handling of CBS by internal/external resource person/ industrial visits are decided. This will be included in the class log book.
- 8. Lecture schedule should be prepared unit wise, as in the syllabus. Number of periods per unit and total number of periods planned should not be less than, periods allotted in the syllabus of Anna University.
- 9. Plan for additional Periods for IA tests, CBS, NPTEL delivery, Seminar, Quiz etc are to be incorporated in the lecture schedule. These periods are added exclusive of number of periods prescribed in the syllabus.
- 10. Plan for at least three assignments (with level of correlation), seminar topic, quiz questions discussed.
- 11. Bright students and slow learners are to be identified, immediately after IA test. I. such students may be counselled suitably and the evidence fur counselling to be recorded in the attendance cum assessment record.

SRIBHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

Kalikkurchi - 622 303, Pudukkottai Di

- (Sign of students with date and time of counselling, to be strictly recorded and to be attached in the course file).
- 12. For those students secured less than 60% in the IA Test, Makeup test should be conducted. Correspondingly root cause analysis for reasons of failure, corrective and preventive action, and follow up action taken should be filed properly.
- 13. Contents of course file to be reviewed periodically.
- 14. Lecture schedule, assignment questions, tutorial questions, course materials, AU questions (at least 5) should be supplied within one week after the commencement of classes.
- 15. Course material should be uploaded in the college website for student's reference.
- 16. Discrepancy in question paper, if any to be informed to the controller of examinations through web portal entry, after getting approval from the HoD & the Principal. Critically asked questions, if any to be discussed with the students of the next batch.
- 17. Immediately after the publication of the results, analysis are to be carried out and follow up action to be taken for the failures.
- 18. IA test question papers should be set as per the norms of the college, incorporating marks for learning outcomes and course outcomes. Common question papers should be set.
- 19. Certificate course/guest lectures may be planned inviting experts from industry/higher learning institutions.
- 20. After IA test, an objective type tests may be conducted (3 times in a semester-30 minutes duration-maximum 10 questions). Questions asked in GATE, TANCET, IES or any other Competitive examination can be taken as a reference. This is to facilitate the bright students to prepare for higher level of thinking and to enhance placement and higher studies opportunities.
- 21. IA test papers, assignment papers or any other papers submitted by the students, should be returned to the students within 5 days after correction. Sample paper should be suitably filed.
- 22. Long absentees of students if any to be informed to the parents through class coordinator, if such students attendance less than 75%.

COURSE COORDINATOR

HoD/S&H
HOD / S&H
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI
PUDUKKOTJAI - 622 303.

Dr. S.THILAGAVATHEM.E., Ph.D.,

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

#### DEPARTMENT OF SCIENCE AND HUMANITIES

# Identification of Curricular Gap & Content Beyond Syllabus(CBS)

Name of the Faculty :T.ANNALAKSHMI,AP/CHEMISTRY Course Code & Name: CY8151 ENGINEERING CHEMISTRY

Degree & Program :B.E. /CSE Semester: I

Academic Year: 2018 -2019 /ODD

I.Mapping of Course Outcomes with POs & PSOs.( before CBS)

Table.1 Mapping of COs, C, PSOs with POs - before CBS. PO PSO PSO PSO CO/PSO 5 6 8 10 11 12 2 3 C104.1 3 2 1 1 1 1 C104.2 3 2 1 1 1 1 C104.3 3 2 1 1 1 1 1 1 C104.4 3 2 1 1 1 1 1 1 C104.5 3 2 1 1 1 1 1 C104.6 3 2 1 1 1 1 1 1 C104 3 2 1

II. Identification of content beyond syllabus.

Table.2 Identification of content beyond syllabus

Details of Content Beyond Syllabus(CBS) added	POs strengthened/ vacant filled	CO/Unit
Corrosion of Metal Alloys and importance in engineering applications in all disciplines.	PO4(1) strengthened	C104.2/ II

# III. Mapping of Course Outcomes with POs & PSOs. (After CBS) Table.3 Mapping of COs, C, PSOs with POs- after CBS.

CO/PSO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PO	PSO	PSO	PSO
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
C104.1	3	2	1	1	\-	-	1	- /	-	1	-	1	1	-	-
C104.2	3	2	1	*2	-/	_	1	-/	-	) 1	-	1	1	-	-
C104.3	3	2	1	-1	- <		1	-	-	1	-	1	1:	-	-
C104.4	3	. 2	1	/1 ==	,Ph.D	B.M.	HIA	A	AJII	iTi2.ii	1 -	1	1	-	-
C104.5	3	2	1	1	ING	NEER	ENGI	IHTA	HAH	SRIB	-	1	1	-	-
C104.6	3	2	1	1	.2315	ukkott	100	1000 1000	-ldəi	Kaikki	-	1	1	-	-
C104	3	2	I.	.1		-	1	-	-	1	-	1	1	-	-

Signature of the Faculty

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING

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Kaikkurchi - 622 303, Pudukkottai Dt.

HOND/SSHIT SRIBHARATHI ENGINEERING CCLLEGE FOR WOMEN

#### **TOPICS BEYOND THE SYLLABUS**

CORROSION OF THE METAL ALLOYS

#### REASON BEYOND THE SELEECTION

To acquire knowledge of corrosion of metal alloys and importance in engineering applications and metal alloys

#### REFERENCE LINK

https://www.lkouniv.ac.in/site/writereaddata/siteContent/202003251903229434ranvijay Corrosion Science.pdf

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#### DEPARTMENT OF SCIENCE AND HUMANITIES

# **Assignment Question Paper**

Name of the Student: Gayathri. 5

AU Register Number: 912618104006

	Assignment	- 03	Date of Issue:	09.12.2018	Marks	30
Course code	CY8151	Course Title	Engineering of	chemistry		
Year	I	Semester/Section	I/A	Date of Submissi	on: 12.12	2.2018

Q.No	Questions	СО
1	What is stainless steel and explain its types?	C104.3
2	What is condensed phase rule? What is the number of degrees of freedom at eutectic point for a two-component system?	C104.3
3	What are the purposes of alloy making? Illustrate with suitable examples.	C104.3

Name and Signature of the Faculty Incharge

[T. ANNALAKSHMI]

HoD/S&H HOD / S&H SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI PUDUKKOTTAI - 622 303.

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#### DEPARTMENT OF SCIENCE AND HUMANITIES

# **Assignment Answer Sheet**

Name of the Student: Gayathri . S

AU Register Number: 9126 18 104 006

	Assignment -03		Date of Issue:	09.12.2018 N	Marks	30
Course code	CY8151	Course Title	Engineering of	chemistry	*	
Year	I	Semester/Section	I/A	Date of Submission:	12.12.2	2018

Q.No	Questions	СО
1	What is stainless steel and explain its types?	C104.3
2	What is condensed phase rule? What is the number of degrees of freedom at eutectic point for a two-component system?	C104.3
3	What are the purposes of alloy making? Illustrate with suitable examples.	C104.3

#### **Mark Allocation**

Rubrics	Marks Allocated	Marks obtained
Content Quality	6	5
<b>Presentation Quality</b>	2	2
Timely submission	2	2
Total marks	10	9

Name and Signature of the Faculty Incharge

IT. ANNALAKSHMI

(X/2)

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

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			I	QAC	Acaden	nic Au	ıdit	For	m			
			ACADE	EMIC Y	YEAR: 201	8-2019	ODD	SEN	MES	TER		
Nam	ne of Departi	ment:	CSE	_							gistered: 3)	
Deta	ils of Exam	ination:	CT -1/	CT-2/	CT -3 / Mod	lel Test						
S.No.	Course Code		List of Reg.No Verified		Gourse Log Book Verified (Y / N)	Course File Verified (Y / N)	No of students passed	No of Absentees	No of Failures	Pass %	Remarks	
1	HS8151	912618	810400	6	7	Y	06	62	23	20-62	~	
2	MA8151	91261	81040	01	Y	Y	)(	62	18	37.93	-	
3	PH 8151	91261	81040	023	Y	Y	7(	02	12.	58-62		
4	CA 8121	91261	81040	15	Y	Y	27	62	02	93.10		
5	CIE8151	912618	31040	11	Y	Y	22	02	07	75-30		
6	(1E8152	91261	81040	29	Y	4	13	03	15	46-42	_	
					Veri	fied by		•				
Ext	ernal Memb	er Name a	and Signa	ture:	G-sug	aprily	a	ME	2			
	ernal Membe	er Name a	and Signat	ture:	[R SARATIHA] R. SCH							
Over	all Remarks:					Di			THINK	ATHIN PALENGINE	M.E.,Ph.D.,	
							.0	A		- 1. CITY	F1/11/17	

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN **IQAC** Coordinator

Principal

PRHIZ- 41 18
SPH BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICHI - 622 303.
PÜDLIKKOTTALDISTRICT

COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkotta Di

COLLEGE FOR WOMEN KAIKKURICHI PUDUKKOTTAI - 622 303.



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#### DEPARTMENT OF SCIENCE AND HUMANITIES

SUBJECT CODE &TITLE

: CY8151-ENGINEERING CHEMISTRY

YEAR/SEM/SEC/BRANCH

: I/I/A/CSE

#### STUDENT FEEDBACK ON FACULTY

S.NO.	DESCRIPTION	SCORED OUT OF 4	SCORED OUT OF	
4	BEFINAL 3 4 4 3 4 4	001 OF 4	100	
1.	The syllabus of the courses that you have studied in relation to the course competencies expected.	3.7	92	
2.	The course curriculum framed by university is relevant to the programme and year of study.	3.5	87	
3.	The allocation of the hours and credit to the course.	3.6	90	
4.	The electives offered in syllabus are in relation to the technological advancement.	3.7	92	
5.	Size of syllabus in terms of the load on the student.	3.5	87	
6.	The courses in terms of extra learning or self-learning considering the design of the courses.	3.8	95	
7.	The evaluation scheme designed for each of the course.	3.7	92	
8.	The co-curricular activities conducted to bridge the gap between Academic and Industrial needs.	3.8	95	
	OVERALL SCORE	3.6	91	

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Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL

COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkotlai DL

# REPORT SHEET

S.NO	REG.NO	NAME	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1.	912618104001	ABIRAMI.S	4	3	4	3	4	3	4	4
2.	912618104002	AKILA.P	3	4	4	4	4	3	4	4
3.	912618104003	BUVANESHWARI.S	3	4	4	3	4	3	4	4
4.	912618104004 EVANJELIN.S		4	4	4	4	4	4	3	4
5.	912618104005	FEFINA.I	3	3	4	4	3	4	4	4
5. <sup>©</sup>	912618104006	GAYATHRI.S	3	4	4	3	4	4	4	4
7.	912618104007	GOWSALYA.A	4	4	4	4	4	3	4	4
8.	912618104008	ISHWARYA.S	4	3	4	4	3	3	3	4
9.	912618104009	ISWARYA.C	3	4	4	3	4	4	4	4
10.	912618104011	JAYANTHINI.T	4	3	4	3	4	4	3	3
11.	912618104012	KAVIYASELVI.K	3	4	3	3	3	4	3	4
12.	912618104013	KOWSALYA.S	4	4	3	4	4	4	4	4
13.	912618104014	LAKSHMI.N	4	4	3	4	4	3	4	4
14.	912618104015	LAKSHMI PRABHA.M	4	3	4	4	4	4	4	3
15.	912618104016	LAVANYA.S	3	3	4	3	4	4	4	4
16.	912618104017	MALA.S	3	4	4	4	4	4	4	3
17.	912618104018	MAMTHA.G	4	3	4	3	4	4	4	4
18.	912618104019	NIRANJANADEVI.C	4	4	3	3	4	3	4	4
19.	912618104020	NIVEDHA.M	3	4	4	4	4	3	3	3
20.	912618104021	NIVETHA.G	4	4	3	3	3	4	4	4
21.	912618104022	PRIYADHARSHINI.R	1/3	.24,	4	4	4	4	4	4

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Dr. S.THILAGAVATHI M.E., Ph.D.,
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		PERCENTAGE	88	91	94	-87	93	91	95	95
		AVERAGE	3.5	3.6	3.7	3.5	3.7	3.6	3.8	3.8
30.	912618104031	SUSHMEENA K	4	4	3	3	4	4	4	4
29.	912618104030	SURYA.A	3	4	4	4	3	4	4	3
28.	912618104029	SURUTHIKA.S	4	3	4	3	3	4	4	4
27.	912618104028	SIVASANGAVI.A	4	4	4	4	4	4	4	4
26.	912618104027	SINDHU.V	3	4	4	3	3	4	4	.4
25.	912618104026	ROSLINA BEGUM.R	3	3	3	4	4	4	4	4
24.	912618104025	RASMI.J	4	4	4	3	4	3	4	4
23	912618104024	PUVIYARASI.S	3	4	4	4	4	4	4	4
22.	912618104023	PRIYAVATHANI.A	4	3	4	3	3	3	4	4

EXCELLENT	VERY GOOD	GOOD	AVERAGE	POOR
4	3	2	1	0

Faculty Incharge

Dr. S.THILAGAVATHI M.E., Ph.D.,

PRINCIPAL

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.

HOD / S&H

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KAIKKURIGHE

PUDUKKOTTÁI - 622 303.



# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI – 622 303.

#### Circular

Date: 22-10-2018

The second cycle test will be conducted on 31.10.2018, 01.11.2018 02.11.2018 & 03.11.2018 for the I semester (I year) students.

The following instructions are to be followed by the faculty members.

- Total marks for which the question paper to be set will be for 50 marks.
- It is the responsibility of the question paper setter to take the Xerox copies of
  the required number of question papers with the help of Mr. Pandi. S &
  Ms. Anusha. G and it should be handed over to the Exam Coordinator
  Mr. J. Sathyaraj A.P/ EEE on or before 29.10.2018.
- The Exam Coordinators (exam cell) are requested to make necessary arrangements (hall arrangements, invigilation duty etc.,) for conducting the test.
- Faculty members are requested to handover the valued answer scripts to the students on or before 08.11.2018 and the class in-charges are requested to send the consolidated mark sheet along with the attendance percentage to the parents on or before 09.11.2018.

PRINCIPAL

Cc:

All faculty

• Exam cell

· Office file

PRINCIPAL

SRI BHARATHI ENGINEERING

COLLEGE Kalegorine (cor so ) Bundekko Halbertelot

Dr. S.THILAGAVATHI M.E., Ph.D.,

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SRIBHARATHI ENGINEERING COLLEGE FOR WOMEN

Kaikkurchi - 622 303, Pudukkottai Dt.



# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI – 622 303.

#### Circular

Date: 22-10-2018

The second cycle test will be conducted on 31.10.2018, 01.11.2018, 02.11.2018 & 03.11.2018 for the I semester (I year) B.E/ B.Tech students for 50 marks as per the time table given below. Students are directed to prepare well and score good marks.

Date	(10.00 am -11.30 am)	2.30 pm -4.00 pm
	CY8151 Engineering Chemistry	GE8151 Problem Solving and Python Programming
01.11.2018	PH8151 Engineering Physics	HS8151 Communicative English
	COACHING	MA8151 Engineering Mathematics – I
03.11.2018	GE8152 Engineering Graphics (9.30 pm to 12.30pm)	

Cc:

• All I year B.E / B.Tech Classes

• All faculty

• Exam cell

Notice Board

· Office file

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KAIKKURICHI - 622 303.

PUDUKKOTTAI DISTRICT

Dr. S.THILAGAVATAI M.E., Ph.

PRINCIPAL

Register Number:		-		14 0000			7	1				
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4011		Rainkui leni, i udukkottai, i amni Nadu – 022 505, india								
	Cycle tes	t - II	Date/Session	31.10.2018/AN	Marks	50				
Course cod	e CY8151	Course Title	Engineering ch	emistry						
Regulation	2017	Duration	1.30 hours	Academic Ye	ear 20	18-2019				
Year	2018	Semester	I make han	Department	CS	E				
<b>COURSE</b> O	DUTCOMES									
CO104.1:	Summarize the water related problems in boilers and their treatment techniques.									
CO104.2:	Discuss the applications of adsorption in the field of water and air pollution abatement.									
CO104.3:		of catalysis and the med								
CO104.4:		le in the alloying and t			wo compon	ent				
	systems using pha			T	compon					
CO104.5:	Explain various typ	pes of fuels, their manu	ufacturing processe	es and calculation	of calorific					
	theoretically		Special							
CO104.6:	Summarize the principles and generation of energy in batteries ,nuclear reactors, solar cells, wind									
	mills and fuel cells									

Q.No.	Question	CO	BTS
	PART A		
1	(Answer all the Questions 10 x 2 = 20 Marks) What are promotors and catalytic poisoning? Give examples.	CO104.2	K2
2	Write a rate law for unimolecular surface reaction at low temperature.	CO104.2	K2
TIME	Contract		
3	Define the term catalyst.	CO104.2	K1
04 35	List any four characteristics of enzyme catalysis.	CO104.2	K1
5	What are the objictives of heat treatment of alloys?	CO104.3	K2
6	What is meant by 18/8 stainless steel?	CO104.3	K2
7	Define the number of phase, component and degree of freedom for the following system.	CO104.3	K3
	i) $PCl_{5(g)} \leftrightarrow PCl_{3(g)} + Cl_{2(g)}$ ii) $CaCO_{3(s)} \leftrightarrow CaO_{(s)} + CO_{2(s)}$ iii) $Ice_{(s)} \leftrightarrow Water_{(l)} \leftrightarrow Vapour_{(g)}$		
8	What is an eutectic point?	CO104.3	K2
9	Write down the condensed phase rule.	CO104.3	K1
PART B	(Answer all the Questions 2 x 16 = 20 Marks)		
10a	(i) Explain the contact theory of catalysis.	CO104.3	K3
	(ii) Derive the kinetic equation of Langmuir – Hinshelwood Mechanism.		
10b		003	****
100	(i) Discuss the role of activated carbon in the abetment of air pollution and waste water	<b>-</b> CO104.3	K3
	treatment.  (ii) Derive Michaeli's-Menten equation.  Dr. S.THILAGAVATHI M.E., Ph.D.,  PRINCIPAL  SPIRHARATHI ENGINEERING		,
	(II) Derive Michaeli's-Menten equation.  SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN		

	1 1799am/2743988332		
11a	(i) Discuss the heat treatment of Steel in details.	CO104.3	K2
(i	(ii) Give the composition and uses of the following alloys.		
	1) Nichrome		
	2) Stainless steel	2000 34399	
	CREATE OR STREET		A.
11b	(i) Discuss the phase diagram of lead-Silver system and explain briefly write about	CO104.3	K2
	Pattinson's process.	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
	(ii) Discuss the phase diagram of water system and explain the characteristics	SIGN IS PAIN	

Course Faculty

(Name /Sign / Date)

(Name /Sign / Date)

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SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKKURICH

PUDUKKOTTAI - 622 303.

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Kaikkurchi - 622 303, Pudukkottai Dt.

D. S.THILAGAVATHI M.E., Ph.D.

COLLEGE FOR WOMEN
Kalkkurchi - 622 303, Pudukkottai Dt.

# SRI BHARATHI ENVINEEKIMU LOLLEVIE FOR WOMEN INTERNAL ASSESMENT EXAM - 2018 - 2019

!- proprotors: increase the activity of the catalyst.
poisioning:- portial (or) total deactivation of a cataly.

2. Rate (lowp) = ka KPA

3. which alternate the rate of chemical reaction.

4. in most efficient catalyst

(i) more specific

5. (i) improvement in magnetic and electrical properties.

(ii) Refinement of grain structure.

6. alloy steel conteining chromium, nickel, molypdenium, 16m chromium 4 0.3 to 1.5%. combon.

T. 1. F=2-1+2=3

F= 2-3+2=1

P= 1-3+2=0

8. Eutetic point: Three phases one in equilibrium.

9. system in which only the solid and liquid phases are considered and the gaseous phase is ignored.

100%; contact theory of catalysts \* Action of Heterogeneous catalyst Hydrogenation of Ethylene using Ni catalyst.

H) C=C(H) MILCOX H-C-C-H Dr. S.THILAGAVATE Ethylene (gas).

Ethane gardikkurchi-622 303, Pudukkattai Dt.

Mechanism: Step-I - Add orption of reactant molecules. Step-II - Formation of Activated complese. Step-III - Decomposition of Activated complex. Step-IV - Desorption of products. \* finely divided state of catalyst is more efficient. \* Enhanced activity of a rough surfaced catalyst. \* Action of promotors, catalytica poisoning. \* specific action of the catalyst. 100/11) Longmuir - Hisshelwood mechanism! Arg,  $+S \rightleftharpoons AS (Ad)$ ,  $Bg, +S \rightleftharpoons BS (cod)$ ,  $AS + BS \rightarrow PAG$ Roch = 1c3 OA OB, A = KP , Rate (~) = K3 OA OB = K3 K, PA! (1) Both the moleules have how adsorption. 1>> 1ciPA (K2PB " Rate (r) = K3 K1 K2PAPB (ii) one moleule have low adsorption, KIPA 11>7 KEPB, Rate CAT = K3K, K2 PAPB (1) one melaule have very high adsorption. KIPA >> 1, K2PB, Rate (r) - K311, PA K2PB 10. bois pairpollution and waste water magnement. 2. Powdered Activated combon (PAC) PRINCIPAL SRIBHARATHIENGINEERING COLLEGE FOR WOMEN
WAC I Down flow fixed bed control Rankwirchi - 622 303, Pudukkottai DE 2. uptlow fixed-bed combon confactors.

pAC powdered activated cerobon (pAC) is added deveetly into the effluent larning out from the various biological treatment processes.

10€) (ii) Michaelis - mention equation; -Et S
Et S
Et S
Et S
Et S
Et S

Ensyme substrate

Intermediate Res

(complex) dex) = K, [E][s]-1c,[x]-K3[x] EX, CEJ[S] -(K2+K3)[X] SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN** [E][S] A[X] = molar concentration Kaikkurchi-622303, Pudukkottai Dt. kg [E] dcp] = 1c3[x] = dcp] = K3[E0] (0-5) T2 [s]+k At low concentration at higher concentration dcp] = K3 [E0][S] depl = k3(E0)(S)

dt Km 11(a) (i) Helet treatment of steel in details." = KS(E0) 1. Abjectives! \* Improvement in magnetic & electrical propi \* Refinement of grain structure

\* Refinement of grain structure

\* Removal of the improposed trapped gase. 2. Type).

8 Amelling & Hondening & Tempering \* Normalizing \* comburising # Nitriding. 11 my (ii) nichrome & staiders steel 1. Michrone - Nickel and Chromium 2. Journeless Steel. metal x. 'magnetic nov-wode 60%. 12-224. Amonian vickel 18-26% quosugan 127. 8-214. 0.357, Carbon. 267. Dear 0.157. magamese ! 27. chemical equipmentiskution 1-622300 house hold wonsils, on PUDUKKOTTAI DISTRIGENTAL & Surgical Instour

automobiles.

11.600) lead-Sylver system F=C-P+1 at constaint processine, the rayour phase and the condensed phase rule is used. Solid Ag 2 melt. F=2-2+1 F=1 curve OA curve 80 solid pb = melt F=22-2+1 F=1 Solid pb+Solid Ag 2 roelt F=2-3+1 F=0, bolet, o, Areas: (molten pb+Ag) F=2-1+1. F2 1). (b (i) Water System!solid a liquid liquid & voyour solid 2 vapour. curve of: water & water vapour, F=C+P+2 1F= 1-2+2 1 F=1 unere ob: lee 2 vapour. F= 1-2+2,F=1 Dr. S.THILAGAVATHI M.E., Ph.D., F=1-2+2, F=1 PRINCIPAL SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN** point 0 1ce 2 mater 2 rapour, Pudukkottai Dt. F-C-P+2 1 F= 1-3+2, F=0 curve of Super-Goo) walt ? vapour, Areas AOB, BOC, AOC. represents walts vapon, 10 F=C-P+2, F===1+2 F=2.

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#### **Cycle Test Answer Book**

Name	NIVETHA .	Л		Year/ Semester/Section	I/I/A
Batch No.	912618104020	Date/Session	31.10.2018	Department:	CSE
Course code	CY8151	Course Title	Engineer	ing Chemisti	1
Internal Assess	sment Test	IAT 1	IAT 2	IAT 3 Me	odel
Name and Sign	nature of the Invigil	lator with date	S-B-j	31/10/8 [S.RENVO	TADEVI]

Instructi	on to	the Student:	Put tick man	rk to tl	he question at	tended	d in the column	against question.	
F	Part	A	Part B / Part C						
Q. No.	1	Marks	Q. NO.	1	a	1	b	Total Marks	
Q. 110.	Marks Q.		Q. NO.		Marks		Marks		
1	~	2	11	V	13			13	
2	~	2	12			V	12	12	
3	~	2	13						
4	~	0	14						
5	~	2	15		W -				
6	~	0	16						
7	~	2					Total	25	
8	~	2					shue	ST. ANNALAUT	
9	/	0					1/1/2	*T. ANNAFAKT	
10	10 V O 37 Name and					Signature			
Total		12	Gra	and T	Total	of the Examiner with date			

		To be fi	lled by the	examiner			
Course Outcomes	1	2	3	4	5	6	Total
Marks allotted		24	26				50
Marks Obtained		19	18				37
IQAC Audit - Remarks							
Name and Signature of the IQAC member							

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN

Kaikkurchi - 622 303, Pudukkottai DŁ



#### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN, KAIKKURICHI (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

#### ACADEMIC YEAR 2018-2022-- ODD SEMESTER STUDENTS MARK STATEMENT -CO BASED **SECTION -A CYCLE TEST-II-(NOVEMBER-2018)**

**PROGRAM** 

: B.E / CSE

YEAR/SEM

: I/I

SUBJECT CODE & TITLE: CY8151-ENGINEERING CHEMISTRY

DATE

: 31.10.2018

S.NO	REG.NO	NAME	CO3	CO4	CO5	CO6	MARKS	MARKS
5.110		IVAIVIE	(10)	(20)	(10)	(10)	(50)	(100)
1	912618104001	ABIRAMI.S	06	10	08	07	31	62
2	912618104002	AKILA.P	05	12	09	07	33	66
3	912618104003	BUVANESHWARI.S	7	15	09	05	36	72
4	912618104004	EVANJELIN.S	08	13	06	03	30	60
5	912618104005	FEFINA.I	04	06	05	01	16	32
6	912618104006	GAYATHRI.S	09 -	18	08	09	44	88
7	912618104007	GOWSALYA.A	05	08	07	06	26	52
8	912618104008	ISHWARYA.S	09	16	06	05	36	72
9	912618104009	ISWARYA.C	08	15	07	06	36	72
10	912618104011	JAYANTHINI.T	AB	AB	AB	AB	AB	AB
11	912618104012	KAVIYASELVI.K	07	14	08	07	36	72
12	912618104013	KOWSALYA.S	06	13	09	04	32	64
13	912618104014	LAKSHMI.N	09	.18	08	07	42	84
14	912618104015	LAKSHMI PRABHA.M	08	14	07	09	38	76
15	912618104016	LAVANYA.S	08	18	09	06	41	82
16	912618104017	MALA.S	06	30914	06	04.	30	60
17	912618104018	MAMTHA.G	· AB	AB	AB	AB	AB	AB
18	912618104019	NIRANJANADEVI.C	08	15	08	08	39	78
19	912618104020	NIVEDHA.M	08	14	08	07	37	74
20	912618104021	NIVETHA.G	06	14	07	04	31	62
21	912618104022	PRIYADHARSHINI.R	06	19	08	08	41	82
22	912618104023	PRIYAVATHANI.A	06	16	06	05	36	72
23	912618104024	PUVIYARASI.S	04	06	05	04	19	38
24	912618104025	RASMI.J	07	13	06	04	30	60
25	912618104026	ROSLINA BEGUM.R	09	18	10	09	46	92
26	912618104027	SINDHU.V	09	18	09	09	45	90
27	912618104028	SIVASANGAVI.A	07	19	07	07	40	80
28	912618104029	SURUTHIKA.S	06	14	06	05	31	62
29	912618104030	SURYA.A	07	19	08	09	43	86
30	912618104011	SUSHMEENA K	06	10	04	07	27	54

Dr. S.THILAGAVATHIM.E., Ph.D., PRINCIPAL

#### MARK RANGE:

<20	20-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
-	-	02	-	05	05	09 .	06	01

Total Number of Students Present	8105.01.12 28
Total Number of Students Absent	02
Total Number of Candidates Pass	26
Total Number of Candidates Fail	02
Percentage of Pass	92.85%

SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN** KAIKKURICHI PUDUKKOTTAI - 622 303.

PRINCIPAL PRINCIPAL SRI BHARATHI ENGINEERIN COLLEGE FOR WOMEN

KAIKKURICHI - 622 303. PUDUKKOTTAI DISTRICT

Dr. S.THILAGAVATHM.E.,Ph.D.



(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai-25)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF SCIENCE AND HUMANITIES

#### **ROOT CAUSE ANALYSIS**

Name of the Faculty:

: Mrs.T.Annalakshmi

Course Code & Name: CY8151-Engineering Chemistry

Degree & Program

: **B.E & CSE** 

Semester : I

Cycle Test

: II

Month & Year

: November / 2018

**Target** 

: 100 %

Achieved

: 92.85%

S.NO	REG NO	NAME OF THE STUDENT	CAUSES FOR FAILURE	CORRECTIVE ACTION TAKEN
1.	912618104005	FEFINA.I	confused in derivation part	hours to ask guestions about lock to the faculty
2.	912618104007	GOWSALYA.A	Not prepare	Home test given
3.	912618104011	JAYANTHINI.T	ABSENT	to altert tests with well preparation
4.	912618104018	MAMTHA.G	ABSENT	counceling given to altent lest with well preparation
5.	912618104024	PUVIYARASI.S	Confused in equation part	house test conducted
6.	912618104031	SUSHMEENA K	Not prepare Well	Home test

Signature of the Faculty Member

Signature of the HoD/S&H

HOD / S&H

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI

PUDUKKOTTAI - 622 303.

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL



# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI – 622 303.

#### Circular

Date: 05.11.2018

Retest for second cycle test will be conducted from **09.11.2018 to 15.11.2018** for the I semester (I year) students.

The following instructions are to be followed by the faculty members.

The following instructions are to be followed by the faculty members.

- Total marks for which the question paper to be set will be for 50 marks.

  (PART A 5X2=10, PART B 2X13=26 & PART C 1X14=14)
- It is the responsibility of the question paper setter to take the Xerox copies of the required number of question papers.
- Concerned Faculty members are requested to conduct the examination as per the scheduled and handover the valued answer scripts to the students on or before 16.11.2018.

PRINCIPAL

Cc:

All faculty

• Exam cell

• Office file

PRINCIPAL

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

KAIKKURICHI - 622 303.

**PUDUKKOTTAI DISTRICT** 

Dr. S.THILAGAVATHI M.E., Ph.D.,

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

Kaikkurchi - 622 303, Pudukkottai Dt.



# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303.

## Circular

Date: 06.11.2018

Retest for second cycle test will be conducted from 09.11.2018 to 15.11.2018 for the I semester (I year) B.E students for 50 marks as per the time table given below. Students are directed to prepare well and score good marks.

Date	04.00 pm -05.30 pm			
09.11.2018 MA8151-Engineering Mathematics-I				
10.11.2018 PH8151-Engineering Physics				
12.11.2018	HS8151-Communicative English			
13.11.2018	GE8152-Engineering Graphics			
14.11.2018	CY8151-Engineering Chemistry			
15.11.2018	GE8151-Problem Solving and Python Programming			

Cc:

All I year B.E Classes

All faculty

Exam cell

Notice Board

Office file

PRINCIPAL

SRI BHARATHI ENGINEERING

COLLEGE FOR WOMEN

KAIKKURICHI - 622 303.

PUDUKKOTTAI DISTRICT

Dr. S.THILAGAVATHI M.E. Ph.D. PRINCIPAL

Register Number:												
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# SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and affiliated to Anna University, Chennai)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Cycle test – II (Retest)			Date/Session 14.11.2018/AN Marks					
Course cod	e CY8151	Course Title	Engineering chemistry					
Regulation	2017	Duration	1.30 hours	Academic Year	2018-2019			
Year	2018	Semester	I	Department	CSE			
COURSE C	OUTCOMES							
CO104.1:	Summarize the war	ter related problems in	boilers and their tr	eatment techniques.				
CO104.2:		Discuss the applications of adsorption in the field of water and air pollution abatement.						
CO104.3:		of catalysis and the med						
CO104.4:		le in the alloying and the			component			
	systems using pha			1	1			
CO104.5:	Explain various typ	pes of fuels, their manu	facturing processe	s and calculation of o	calorific			
	theoretically							
CO104.6:	Summarize the prin	nciples and generation	of energy in batter	ies .nuclear reactors.	solar cells, win	ıd		
	mills and fuel cells		6,	, <del></del> ,	2010, 1111			

Q.No.	Question	CO	BTS
	PART A (Answer all the Questions 10 x 2 = 20 Marks)		
1	What is heterogeneous catalysis? Give example	CO104.2	K2
2	What is an acid base catalysis? Give examples.	CO104.2	K2
3	Write Michaelis – Menton equation and explain the terms involved.	CO104.2	K1
4	Define turn over number.	CO104.2	K1
5	What is nichrome? Give its composition and uses.	CO104.3	K2
6	What is annealing? Explain its types.	CO104.3	K2
7	Define phase (p) with suitable example.	CO104.3	K3
8	What is a metastable equilibrium in water system?	CO104.3	K2
9	What are the limitations of phase rule?	CO104.3	K2
	PART B (Answer all the Questions 2 x 16 = 20 Marks)		
10a	(i) Write the following with suitable examples	CO104.2	
	a)Heterogeneous catalysis b)Acid –base catalysis.		K1
	OR		
10b	(i) Mention important characteristic features of enzyme catalysis.	CO104.2	
	(ii)Mention the important applications of catalysts.		K1
11a	<ul><li>(i) Define alloy and discuss the functions and effect of alloying of metals with examples.</li><li>(ii) What are the purposes of alloy making? Illustrate with suitable examples.</li></ul>	CO104.3	K2
	OR		
11b	(i) State phase rule and explain the terms involved in it.	CO104.3	
	(ii)Explain the one-component water system in detail with neat diagram.		K2

Course Faculty
(Name /Sign / Date)

Dr. S.THILAGAVATHI M.E., Ph.D.,
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SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

HOD SET STATE SRIBHARATHIENGINEERING



## SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN, KAIKKURICHI (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

### ACADEMIC YEAR 2018-2022-- ODD SEMESTER STUDENTS MARK STATEMENT -CO BASED **SECTION -A**

## ATTENDANCE SHEET- RETEST FOR CYCLE TEST-II

**PROGRAM** 

: B.E / CSE

YEAR/SEM

: I/I

SUBJECT CODE & TITLE: CY8151-ENGINEERING CHEMISTRY

DATE

: 14.11.2018

S.NO	REG.NO	NAME	SIGNATURE
1	912618104005	FEFINA.I	Februig T
2	912618104007	GOWSALYA.A	ortange 1. A.
3	912618104011	JAYANTHINI.T	Sangethim I
4	912618104018	MAMTHA.G	Mamilton-CT
5	912618104024	PUVIYARASI.S	Purinjanasi. 5
6	912618104011	SUSHMEENA K	Summer of

Dr. S.THILAGAVATHI M. E. Ph.D.,

PRINCIPAL

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INCHARGE

THI ENGINEERING **COLLEGE FOR WOMEN** KAIKKURICH PUDUKKOTTÁI - 622 303.

PRINCIPAL

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PUDUKKOTTAL DISTRICT



### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN, KAIKKURICHI (Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25)

## **ACADEMIC YEAR 2018-2022-- ODD SEMESTER** STUDENTS MARK STATEMENT -CO BASED **SECTION-A**

**CYCLE TEST-II (RETEST) (NOVEMBER-2018)** 

**PROGRAM** 

: B.E / CSE

YEAR/SEM

: I/I

SUBJECT CODE & TITLE: CY8151-ENGINEERING CHEMISTRY

DATE

: 14.11.2018

S. NO	REG.NO	NAME	CO3 (10)	CO4 (20)	CO5 (10)	CO6 (10)	MARKS (50)	MARK S
1	912618104005	FEFINA.I	0.0	1.5	0.7			(100)
1			06	15	05	08	34	68
2	912618104007	GOWSALYA.A	08	15	07	06	36	72
3	912618104011	JAYANTHINI.T	07	14	08	06	35	70
4	912618104018	MAMTHA.G	07	16	08	08	38	76
5	912618104024	PUVIYARASI.S	08	18	07	06	39	78
6	912618104011	SUSHMEENA K	07	16	08	08	42	76

#### **MARK RANGE:**

<20	20-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
-	-	-	-	-	02	04	-	-

Total Number of Students Present	06
Total Number of Students Absent	NIL
Total Number of Candidates Pass	06
Total Number of Candidates Fail	NIL
Percentage of Pass	100%

Dr. S.THILAGAVATHI M.E. Ph.D.,

PRINCIPAL

**SRI BHARATHI ENGINEERING** 

COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukl@ttai Dt.

**FACULTY UNCHARGE** 

HoD/S&H

HOD/S&H

SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN** KAIKKURICHI PUDUKKOTTAI - 622 303.

PRINCIPAL

PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
KAIKRURICHI - 622 303.
PUBURRUTTAI DISTRIBT



## SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu - 622 303, India DEPARTMENT OF SCIENCE AND HUMANITIES

## **ACADEMIC YEAR 2018-2019 (ODD SEMESTER)**

### FINAL INTERNAL STUDENTS MARK STATEMENT (Out of 20)

SUBJECT CODE &TITLE: CY8151-ENGINEERING CHEMISTRY

YEAR/SEM/BRANCH: I/I/CSE

S.NO	SECTION AND AND AND AND AND AND AND AND AND AN		TOTAL (20)
1.	912618104001	ABIRAMI.S	15
2.	912618104002	AKILA.P	16
3.	912618104003	BUVANESHWARI.S	16
4.	912618104004	EVANJELIN.S	17
5.	912618104005	FEFINA.I	16
6.	912618104006	GAYATHRI.S	17
7.	912618104007	GOWSALYA.A	15
8.	912618104008	ISHWARYA.S	15
9.	912618104009	ISWARYA.C	16
10.	912618104010	JANAKI.V	0
11.	912618104011	JAYANTHINI.T	16
12.	912618104012	KAVIYASELVI.K	17
13.	912618104013	KOWSALYA.S	18
14.	912618104014	LAKSHMI.N	17
15.	912618104015	LAKSHMI PRABHA.M	17
16.	912618104016	LAVANYA.S	12
17.	912618104017	MALA.S	16
18.	912618104018	MAMTHA.G	16

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PRINCIPAL

19.	912618104019	NIRANJANADEVI.C	16
20.	912618104020	NIVEDHA.M	16
21.	912618104021	NIVETHA.G	16
22.	912618104022	PRIYADHARSHINI.R	15
23.	912618104023	PRIYAVATHANI.A	15
24.	912618104024	PUVIYARASI.S	16
25.	912618104025	RASMI.J	18
26.	912618104026	ROSLINA BEGUM.R	18
27.	912618104027	SINDHU.V	16
28.	912618104028	SIVASANGAVI.A	16
29.	912618104029	SURUTHIKA.S	17
30.	912618104030	SURYA.A	15
31.	912618104031	SUSHMEENA K	17

2018 FACULTMINCHARGE

HoD/S&H

PRINCIPAL

HOD / S&H COLLEGE FOR WOMEN KAIKKURICHI PUDUKKOTTAI - 622 303.

PRINCIPAL SRI BHARATHI ENGINEERING SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI - 622 303. PUDUKKOTTAI DISTRICT

Dr. S.THILAGAVATHI ME. Ph.D. PRINCIPAL



### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

### DEPARTMENT OF SCIENCE AND HUMANITIES

ACADEMIC YEAR 2018 – 2019 (ODD SEMESTER)

### ANNA UNIVERSITY RESULT STATEMENT (NOV/DEC- 2018)

SUBJECT CODE &TITLE: CY8151-ENGINEERING CHEMISTRY

YEAR/SEM/BRANCH: I/I/CSE

S.NO	REG NO	STUDENT NAME	GRADE
1.	912618104001	ABIRAMI.S	В
2.	912618104002	AKILA.P	U
. 3.	912618104003	BUVANESHWARI.S	В
4.	912618104004	EVANJELIN.S	U
5.	912618104005	FEFINA.I	DON U
6.	912618104006	GAYATHRI.S	В
7.	912618104007	GOWSALYA.A	U
8.	912618104008	ISHWARYA.S	В
9.	912618104009	ISWARYA.C	В
10.	912618104011	JAYANTHINI.T	B+
11.	912618104012	KAVIYASELVI.K	В
12.	912618104013	KOWSALYA.S	В
13.	912618104014	LAKSHMI.N	В
14.	912618104015	LAKSHMI PRABHA.M	В
15.	912618104016	LAVANYA.S	UA
16.	912618104017	MALA.S	U

Dr. S.THILAGAVATHI ME.Ph.D

17.	912618104018	MAMTHA.G	В
18.	912618104019	NIRANJANADEVI.C	vet be <b>U</b> sound
19.	912618104020	NIVEDHA.M	U
20.	912618104021	NIVETHA.G	В
21.	912618104022	PRIYADHARSHINI.R	U
22.	912618104023	PRIYAVATHANI.A	В
23.	912618104024	PUVIYARASI.S	U
24.	912618104025	RASMI.J	B+
25.	912618104026	ROSLINA BEGUM.R	B+
26.	912618104027	SINDHU.V	U
27.	912618104028	SIVASANGAVI.A	В
28.	912618104029	SURUTHIKA.S	В
29.	912618104030	SURYA.A	U
30.	912618104011	SUSHMEENA K	U

FACULTY INCHARGE

HOD / S&H SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI PUDUKKOTTAI - 622 303.

PRINCIPAL

PRINCIPAL

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN

KAIKKURICHI - 622 303. PUDUKKOTTAI DISTRICT

Dr. S.THILAGAVATHIM.E., Ph.D.,

PRINCIPAL

	26 1 16 1 45	12 48 1 tr 1			SRII	BHAR	ATHI	ENG	INEER	NG CC	LLEG	E FOI	wo	MEN	,KAI	KUR	UCH	I,PUD	UKK	OTT	AI			Y 19-0			N. BY		10000	456.16	
		24 52 20 2					13	1		Departm	ent of	Science	and I	Iumai	nities											9 8289	Water 2	rigin to	netse.		
									nent -At	tainme	at of C	ourse (	Outco	mes (	Throu	gh D	irect .	Asses	ment	)	-					-					
	1 1	1		ACAD	EMIC	YEAR -	- 2018 -	19					3							-		BA	TCH				OA SLOT	2018 - 2	2022		
CO	OURSE CODE/TITLE	CY8151 (C104)/ENGINEERI	NG CHE	MISTRY																	СО	URSE	OUTC	OME		1	2	3	4	5	6
	YEAR/SEM	1/1			2		Ta	1		-												TARC	GET(%	)	-	65	65	65	65	65	65
	COURSE COORDINATOR	MRS. T.ANNALAKSHMI	.[		ę.		A.E.	1				T		20				T	Ħ		то	TAL S	TREN	GTH			- 7 CBR	30	10000	1780.19	
	. 65 . 1 . 36 . 1 . 63	Level			9	8.	a T	de				,		- 19		1	Ra	inge		-				73		A F4	ACHAŻ	Y12	350901	878576	
	12 12 18				8/	8	, M						1	JP TO	60%	of the	studen	ıts scor	ed mo	re tha	n targe	t	14	17			Azerej	900	erete	alacie	
AT	TAINMENT LEVEL	2 1			8	6	er.	14				Ī		61 - 7	9% of	the stu	idents	score	d more	e than	target		R	2.9			A AY	eue	TO CONDI	i destre	
	*   10   10	3			*			PR	1			14.	80	% & A	BOVE	of the	e stude	ents so	ored n	nore th	an tar	get	R I	18		34.5	-MEN-GI	8,18	(Abair)	a a a se a se	
	68   86   65   60   65   65	6 1 2 1 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	L	AT 1 - M.	ARKS A	ALLOT	ED		IAT	2 - MAR	KS ALI	OTED		L	AT 3 -	MARI	KS AL	LOTE	ED .	Assi	gnmen		i Projec ninar	t /Tut	orial /	somoch/O	TOTAL	COURS	E OUTCO	ME	
S.NO	REG NO	NAME OF THE STUDENT	C1	C2	СЗ	C4	C5 C	6 0	C1 C2	С3	C4	C5	C6	C1	C2	С3	C4	C5.	C6	C1	C2	СЗ	C4	C5	C6	C1	. C2	СЗ	C4	C5	C6
			60	40		1		-		40	60	-						60	40		10	10	2001/19		10	60	50	50	60	60	50
1	912618104001	ABIRAMI S	45	30						31	46				74			48	32		8	8	- (112-12)		8	45	38	39	46	48	40
2	912618104002	AKILA P	45	30						30	45				1			50	33		8	8			7	45	38	38	45	50	40
3	912618104003	BUVANESHWARI S	44 .	30						30	45							50	-33		9	9			8	44	39	39	45	50	41
4	912618104004	EVANJELIN S	48	32				1		32	47				1			53	36	77.97	7	9			8	48	39	41	47	53	44
5	912618104005	FEFINA I	47	32						30	45				. N. 1			51	34		8	8			9	47	40	38	45	51	43
6	912618104006	GAYATHRI S	51	34						35	52		. 3					54	36		8	7	2,10,	2.6	9	51	42	42	52	54	45
7	912618104007	GOWSALYA A	45	30						28	43		-					51	34		8	8			9	45 ^	38	36	43	51	43
8	912618104008	ISHWARYA S	43	29						29	44							48	32		9	8			9	43	38	37	44	48	41
9	912618104009	ISWARYA C	47	32				1	4	32	47							53	36		9	9		P III.	9	47 .	41	41	47	53	45
11	912618104011	JAYANTHINI T	43	28	491	Яã			1 11	32	49							52	35		8	8			8	43	36	40	49	52	43
12	912618104012	KAVIYASELVI K	52	35						34	50				1 1	3.1		55	36		8	9			8	52	. 43	43	50	55	44
13	912618104013	KOWSALYA S	54	36	C32 1					34	51							56	37		9	9			8	54	45	43	51	56	45.2
14	912618104014	LAKSHMI N	49	33						35	52			•				51	34		9	9			8	49	42	44	52	51	42
15	912618104015	LAKSHMI PRABHA M	48	32				1		33	50				. 0		7 18	52	35		8	9			9	48	40	42 "	50	52	44
16	912618104016	LAVANYA S	31	20					IA	25	37					1		37	25		8	9			9	31	28	34	37	37	34
17	912618104017	MALA S	45	30			-	1	1/1	32	47	-	4			À		53	. 35		8	8			8	45	38	40	47	53	43
18	912618104018	МАМТНА G	50	33				190	1	31	46							50	33		8	8			7	50	41	39	46	50	40
19	912618104019	NIRANJANADEVI C	47	32						33	49	7.7	3,5,4	A.J	H	, C	.74	55	37	5,	8	8			8	47	40	41	49	55	45
20	912618104020	NIVEDHA M	49	32					C WH	32	47	7 11	-					50	33		7	7			8	49	39	39	47	50	41

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3 3	3	3 3		3		3			3					. 6.b	000				1									
₹ 3.5				2		2			3			i and the			CO atta	 Values		the Gra	ph				3	3	3	3	3	
4	7										11	i	1 2 4	-	Percenta	O Attain		bove 1a	iget			1.11	3	3	3	3	3	1
		Course Outcomes Vs	Attainment	Level				-			180.		SERVE S			ored abortudents s				e le et la	3 - 1 2 2		97	97	30 100	97	97	1
																's Target			37.1				39.0	33	33	39	39	
1	912618104031	SUSHMEENA K	51	34	hgs	nidi n	Heat par	Horse I	des lacts	34	52	N SA				53	36		9	9		9	51	43	43	52	53	
0	912618104030	SURYA A	44	29	73 (1	er e	êr ya sa		demir se	30	45					49	33		9	8		8	44	38	38	45	.49	
9	912618104029	SURUTHIKA S	51	34	759	e ba E	ore E1	bern s	18, 1601	34	51					51	34		8	8	-	8	51	42	42	51	51	
	912618104028	SIVASANGAVI A	47	32			ь			32	47		`			50	33		8	9		9	47	40	41	47	50	1
	912618104027	SINDHU V	47	32	ATO!			,		32	48					51	34		9	9		8	47	41	41	48	51	
	912618104026	ROSLINA BEGUM R	48	32	N.Y.		1			36	55					56	37		8	8		8	48	40	44	55	56	1
5	912618104025	RASMI J	49	. 32		2	1.			37	56			-		 57	38		9	8		8	49	41	45	56	57	1
4	912618104024	PUVIYARASI S	47	32			+		7	32	47	1	-		-	53	36	-	8	8		 9	47	40	40	47	53	
3	912618104023	PRIYAVATHANI A	43	28						29	44	9	,			52	35		9	8		9	43	37	37	44	52	
	912618104022	PRIYADHARSHINI R	39	26						30	45	E BXB	/	A la	1200 34	52	34		8	9	•	 9	39	34	39	45	52	1
1	912618104021	NIVETHA G	47	32	-					33	50			* E T A	166	51	34	LANIS	8	8		9	47	40	41	50	51	1

Course Outcomes (C1, C2, C3, C4, C5 & C6)

3

2

5

6

0.5

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI PUDUKKOTTÁI - 622 303.

Dr. S.THILAGAVATHAM.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

## BHARATHIYAR INSTITUTE OF ENGINEERING FOR WOMEN

#### **DEPARTMENT OF S&H**

COURSE OUTCOME ATTAINMENT - UNIVERSITY EXAMINATION

ACADEMIC YEAR: 2018 - 2019 (ODD SEM)

CLASS /SEC: I CSE / A

Batch:2018-2022

SUBJECT :CY8151 (C104) / ENGINEERING CHEMISTRY

CO Attainment Level: 1 - (UPTO 60%) 2- (61%-79%)

3-(80% and Above)

TOTAL STRENGTH:

30

S.NO	Register No	NAME	Univ. Grade	
1	912618104001	ABIRAMI S	В	
2	912618104002	AKILA P	U	
3	912618104003 .	BUVANESHWARI S	В	
4	912618104004	EVANJELIN S	U	
5	912618104005	FEFINA I	U	
6	912618104006	GAYATHRI S	В	
7	912618104007	GOWSALYA A	U	
8	912618104008	ISHWARYA S	В	
9	912618104009	ISWARYA C	В	
10	912618104011	JAYANTHINI T	B+	
11	912618104012	KAVIYASELVI K	В	
12	912618104013	KOWSALYA S	В	
13	912618104014	LAKSHMI N	В	
14	912618104015	LAKSHMI PRABHA M	В	
15	912618104016	LAVANYA S	UA	
16	912618104017	MALA'S	U	
17	912618104018	MAMTHA G	В	
18	912618104019	NIRANJANADEVI C	U	
19	912618104020	NIVEDHA M	U	
20	912618104021	NIVETHA G	В	
21	912618104022	PRIYADHARSHINI R	U	
22	912618104023	PRIYAVATHANI A	В	
23	912618104024	PUVIYARASI S	U	
24	912618104025	RASMI J	B+	
25	912618104026	ROSLINA BEGUM R	B+	
26	912618104027	SINDHU V	U	
27	912618104028	SIVASANGAVI A	В	
28	912618104029	SURUTHIKA S	В	
29	912618104030	SURYA A	U	
30	912618104031	SUSHMEENA K	U	
	No	of O Grade	0	0
	No.	of A+ Grade	0	0
	No	of A Grade	0	0
		of B+ Grade	3	3
	No	of B Grade	14	1
		of U Grade	12	1:
		of UA Grade	1	1
	course outcome Atta	nment	60	3(
	ents above the target		17	
O-Attain	ment University (	%)	56.67	

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI

PUDUKKOTTÁI - 622 303.

Dr. S.THILAGAVATHI M.E., PH.D., PRINCIPAL

Quarall Attainment Sheet -	COs - POs 8	& PSOs attainment	t calculation

со	CO-Attainment Internal (CO- INT) (Avg. Attainment of All section) (%)	CO- Attainment University (Avg. Attainment of All section) (%)	Direct CO Attainment (0.20xCO-INT + 0.80xCO-UNI) (%)	CO Attainm ent Level
C104.1	96.7	56.67	64.7	2
C104.2	96.7	56.67	64.7	2
C104.3	100.0	56.67	65.3	2
C104.4	96.7	56.67	64.7	2
C104.5	96.7	56.67	64.7	2
C104.6	100.0	56.67	. 65.3	2

#### Closure of the Quality Loop:

СО		CO-Targ	et for Academic	Year			CO Attainment Gap for	Action Proposed to Bridge the Gap
-	14-	15	15-16		10	6-17	(78) 10-17	Dridge the out
C104.1	65	79.71	65	69	65	64.7	- /	-
C104.2	65	79.71	65	71.17	65	64.7		-
C104.3	65	79.71	65	63.15	65	65.3	- 1	
C104.4	65	79.71	65	75.11	65	64.7	-	/
C104.5	65	79.71	65	73.57	65	64.7		- \
C104.6	65	79.71	65	68.44	65	65.3	-	-

#### **Expected CO-PO Level**

· ·		<del></del>	T	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Course	PO1	PO2	PO3	P04	FO3	100	1			1.	-	1	1		-
C104.1	3	2	1	1		-	l l			1.		1		-	-
C104.2	3	2	1	1		-	· l		-	,			-		-
C104.3	3	2	1	1	-	-	1	•	-	-	-		-		
C104.4	3	2	1	1	- 7	-	1	•		1 .			-		
C104:5	3	2	1	1		-	1		-	1		1.	1	-	-
C104.6	- 2	2	+	1			1		•	1	-	1	1	- ;	
	3		1	-	-	-	1	-		1	- 1	1	1		
C104	3	4													

						PO Attainme	nt Level								
		PO2	PO3	PO4	PO5	PO6	PO7	PO8 ·	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Course	PO1						0.67			0.67		0.67	0.67	-	-
C104.1	2	1.33	0.67	0.67	-	-				0.67	576	0.67	0.67		-
C104.2	2	1.33	0.67	0.67	-	-	0.67	-	-						-
			0.67	0.67			0.67	•	-	0.67	-	0.67	0.67	-	
C104.3	2	1.33							The second second	0.67	-	0.67	0.67	-	
C104.4	2	1.33	0.67	0.67	-	-	0.67					0.67	0.67		
C104.5	2	1.33	0.67	0.67	-	-	0.67		-	0.67	-				-
	2			0.67			0.67			0.67	-	0.67	0.67	-	
C104.6	2	1.33	0.67			-				0.67		0.67	0.67	-	
C104	2.	1.33	0.67	0.67	-	-	0.67		-	0.07		0.07	0.07		

					Att	ainment of PO	s and PSOs:							*	
		T 200 T	PO3	PO4	PO5	P06	PO7	PO8	PO9	PO10	POII	PO12	PSO1	PSO2	PSO3
Course Code	PO1	PO2		1.04	100				-	1	-	1	1	-	-
C104	. 3	2		1	-	-	2.52			0.67		0.67	0.67		
		1 22	0.67	0.67	-		0.67		Carlo	0.07		0,01	0101		

Comments by Program Coordinator	1. 2.
Remarks by HoD	

Name and Signature of the Faculty Member

T. ANNALAKSHMI

Dr. S.THILAGAVATHI M.E., Ph.D.,

PRINCIPAL SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. HOD S&H
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