DEPARTMENT OF CHEMISTRY

SUBJECT	ENGINEERING CHEMISTRY	SUBJECT CODE	18CHE12

COURSE OUTCOME

CO1. Use of free energy equilibria rationalize bulk properties and process of using thermodynamic consideration, electrochemical energy of systems.

CO2. Causes and effects of corrosion of metals and control of corrosion modification of surface properties of metals to develop resistance to corrosion, wear and tear impact etc by electroplating and electroless plating.

CO3. Production and consumption of energy for industrialisation of country and living standards of people. Electrochemical and concentration cells. Classical, modern batteries and fuel cells. Utilization of solar energy for different useful forms of energy.

CO4. Environmental pollution, waste management and water chemistry.

CO5. Different techniques of instrumental methods of analysis. Fundamental principle of Nanomaterials.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 Communication: Communicate effectively on complex engineering activities with the engineering shrommunity and with the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a tmember and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY				
FACULTY NAME	Dr. CHANDRASEKHAR. N				
BRANCH	ME/ECE/EEE		ACADEMIC YEAR		2018-19
COURSE	B.E	SEMESTER	I	SECTION	C & D
SUBJECT	ENGINEERING CHEMISTRY		SUBJECT CODE		18CHE12

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	2	1	1	1	2	1	1	1	2
CO2	3	2	1	2	-	1	1	1	1	1	-	2
CO3	3	1	1	1	-	2	3	1	1	1	1	2
CO4	3	2	1	3	1	2	3	1	1	1	-	2
CO5	3	1	1	1	1	2	2	1	1	1	1	2
AVERAGE	3	1.6	1	1.8	3	1.6	2	1.2	1	1	3	2
OVERALL MAPPING OF SUBJECT												1.85

CO AND PO ATTAINMENT

	CO%	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	62.3	1.87	1.25	0.62	1.25	0.62	0.62	0.62	1.25	0.62	0.62	0.62	1.25
CO2	68.7	2.06	1.37	0.68	1.37	-	0.68	0.68	0.68	0.68	0.68	-	1.37
CO3	72.3	2.17	1.45	0.72	0.72	-	1.45	2.17	0.72	0.72	0.72	0.72	1.45
CO4	50.9	1.53	1.02	0.51	1.53	0.51	1.02	1.531	0.51	0.51	0.51	-	1.02
CO5	41.8	1.25	0.42	0.42	0.42	0.42	0.84	0.84	0.42	0.42	0.42	0.42	0.84
AVERAGE	59.2	1.776	1.102	0.59	1.058	0.52	0.922	1.1682	0.716	0.59	0.59	0.59	1.186
FINAL ATTAINMENT LEVEL													0.9
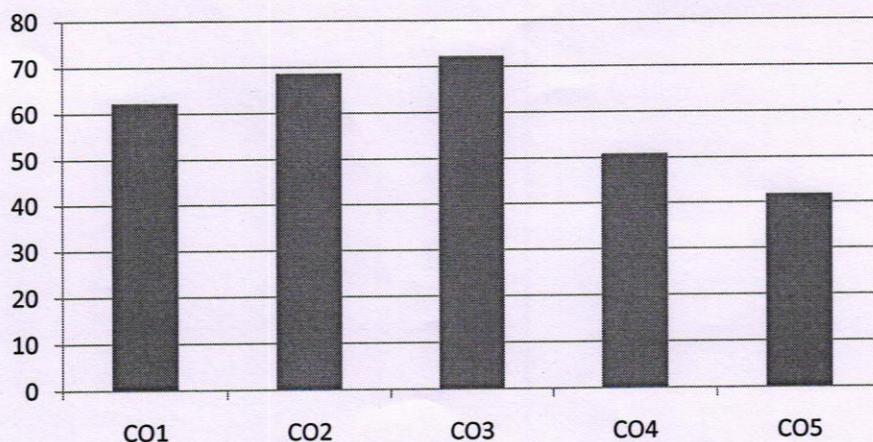
FACULTY   HOD   PRINCIPAL

Academic year	2018-19		SEM	I		Total strength	83		Subject		Engg. Chemistry		Subject Code	18CHE12														
SEM:I,SEC: C&D	IA TEST 1(30M)			IA TEST 2(30M)			IA TEST 3(30M)			ASSIGNEMENT / QUIZ(10 M)					SEE MARKS(60)					Total Cos ATTAINMENT					% of individual CO				
USN	CO1	CO2	TOTAL	CO2	CO3	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5	CO1=29	CO2=44	CO3=29	CO4==29	CO5=29	CO1	CO2	CO3	CO4	CO5
1SV18CV001	8	8	16	4	5	9	4	4	8	2	1	2	1	2	2.4	2.4	2.4	2.4	2.4	12.4	15.4	9.4	7.4	8.4	42.7586	35	32.41	25.52	28.97
1SV18CV002	10	10	20	10	13	23	4	0	4	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	15.4	25.4	18.4	9.4	5.4	53.1034	57.73	63.45	32.41	18.62
1SV18CV003	14	13	27	14	14	28	10	12	22	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	22.6	35.6	22.6	18.6	20.6	77.931	80.91	77.93	64.14	71.03
1SV18CV004	10	5	15	14	13	27	9	11	20	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	11.2	25.2	19.2	15.2	17.2	55.8621	57.27	66.21	52.41	59.31
1SV18CV005	7	3	10	10	9	19	4	4	8	2	2	2	2	2	2.2	2.2	2.2	2.2	2.2	11.2	17.2	13.2	8.2	8.2	38.6207	39.09	45.52	28.28	28.28
1SV18CV007	10	15	25	14	13	27	7	6	13	2	2	2	2	2	4.4	4.4	4.4	4.4	4.4	16.4	35.4	19.4	13.4	12.4	56.5517	80.45	66.9	46.21	42.76
1SV18CV008	10	9	19	10	13	23	10	9	19	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	16.8	25.8	19.8	16.8	15.8	57.931	58.64	68.28	57.93	54.48
1SV18CV009	10	7	17	10	11	21	4	3	7	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	17.2	24.2	18.2	11.2	10.2	59.3103	55	62.76	38.62	35.17
1SV18CV010	0	0	0	10	8	18	5	5	10	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	6.8	16.8	14.8	11.8	11.8	23.4483	38.18	51.03	40.69	40.69
1SV18CV011	10	8	18	14	14	28	10	8	18	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	19.6	31.6	23.6	19.6	17.6	67.5862	71.82	81.38	67.59	60.69
1SV18CV012	5	5	10	7	7	14	7	6	13	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	11.2	18.2	13.2	13.2	12.2	38.6207	41.36	45.52	45.52	42.07
1SV18CV013	10	12	22	15	15	30	10	9	19	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	20.4	37.4	25.4	20.4	19.4	70.3448	85	87.59	70.34	66.9
1SV18CV014	10	12	22	15	15	30	10	6	16	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	16.8	33.8	21.8	16.8	12.8	57.931	76.82	75.17	57.93	44.14
1SV18CV015	10	11	21	12	12	24	7	8	15	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	17.8	30.8	19.8	14.8	15.8	61.3793	70	68.28	51.03	54.48
1SV18CV016	1	0	1	10	11	21	3	3	6	2	2	2	2	2	2.6	2.6	2.6	2.6	2.6	5.6	14.6	15.6	7.6	7.6	19.3103	33.18	53.79	26.21	26.21
1SV18CV017	14	13	27	15	14	29	11	1	12	2	2	2	2	2	6	6	6	6	6	22	36	22	19	9	75.8621	81.82	75.86	65.52	31.03
1SV18CV018	10	15	25	14	14	28	10	12	22	2	2	2	2	2	9.6	9.6	9.6	9.6	9.6	21.6	40.6	25.6	21.6	23.6	74.4828	92.27	88.28	74.48	81.38
1SV18CV019	10	8	18	14	15	29	10	3	13	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	18.4	30.4	23.4	18.4	11.4	63.4483	69.09	80.69	63.45	39.31
1SV18CV020	9	6	15	10	8	18	9	6	15	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	17.4	24.4	16.4	17.4	14.4	60	55.45	56.55	60	49.66
1SV18CV021	9	4	13	10	7	17	2	0	2	2	2	2	2	2	0.6	0.6	0.6	0.6	0.6	11.6	16.6	9.6	4.6	2.6	40	37.73	33.1	15.86	8.966
1SV18CV023	10	13	23	10	7	17	7	4	11	2	2	2	2	2	6	6	6	6	6	18	31	15	15	12	62.069	70.45	51.72	51.72	41.38
1SV18CV024	10	11	21	10	15	25	7	0	7	2	2	2	2	2	4.4	4.4	4.4	4.4	4.4	16.4	27.4	21.4	13.4	6.4	56.5517	62.27	73.79	46.21	22.07
1SV18CV025	11	8	19	13	11	24	10	5	15	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	16.4	26.4	16.4	15.4	10.4	56.5517	60	56.55	53.1	35.86
1SV18CV026	10	14	24	10	15	25	9	8	17	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	17.6	31.6	22.6	16.6	15.6	60.6897	71.82	77.93	57.24	53.79
1SV18CV027	10	7	17	14	14	28	8	9	17	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	19.8	30.8	23.8	17.8	18.8	68.2759	70	82.07	61.38	64.83
1SV18CV028	11	9	20	14	14	28	9	6	15	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	19.8	31.8	22.8	17.8	14.8	68.2759	72.27	78.62	61.38	51.03
1SV18CV029	11	5	16	10	11	21	7	2	9	2	2	2	2	2	4.4	4.4	4.4	4.4	4.4	16.4	21.4	17.4	13.4	8.4	60	48.64	60	46.21	28.97
1SV18CV030	10	8	18	10	9	19	6	9	15	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	20.8	28.8	19.8	16.8	19.8	71.7241	65.45	68.28	57.93	68.28
1SV18CV031	7	7	14	15	15	30	4	4	8	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	12.4	27.4	20.4	9.4	9.4	42.7586	62.27	70.34	32.41	32.41
1SV18CV032	8	8	16	10	8	18	4	5	9	2	2	2	2	2	3	3	3	3	3	13	23	13	9	10	44.8276	52.27	44.83	31.03	34.48
1SV18CV033	10	7	17	10	11	21	6	6	12	2	2	2	2	2	4.6	4.6	4.6	4.6	4.6	16.6	23.6	17.6	12.6	12.6	57.2414	53.64	60.69	43.45	43.45
1SV18CV034	5	5	10	7	6	13	5	4	9	2	2	2	2	2	3.2	3.2	3.2	3.2	3.2	10.2	17.2	11.2	10.2	10.2	35.1724	39.09	38.62	35.17	31.72
1SV18CV035	9	9	18	11	11	22	7	0	7	2	2	2	2	1	2.8	2.8	2.8	2.8	2.8	13.8	24.8	15.8	11.8	3.8	47.5862	56.36	54.48	40.69	13.1
1SV18CV036	10	13	23	15	15	30	15	14	29	2	2	2	2	2	7.4	7.4	7.4	7.4	7.4	19.4	37.4	24.4	24.4	23.4	66.8966	85	84.14	84.14	80.69
1SV18CV037	10	11	21	10	11	21	6	6	12	2	2	2	2	2	5	5	5	5	5	17	28	18	13	13	58.6207	63.64	62.07	44.83	44.83
1SV18ME001	10	8	18	10	18	28	7	0	7	2	1	2	2	2	3	3	3	3	3	15	22	23	12	5	51.7241	50	79.31	41.38	17.24
1SV18ME002	10	12	22	15	15	30	14	15	29	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	19.6	36.6	24.6	23.6	24.6	67.5862	83.18	84.83	81.38	84.83
1SV18ME003	10	8	18	14	13	27	10	4	14	2	2	2	2	2	6	6	6	6	6	18	30	21	18	12	62.069	68.18	72.41	62.07	41.38
1SV18ME004	12	14	26	14	14	28	8	8	16	2	2	2	2	2	1.66	1.66	1.66	1.66	1.66	15.66	31.7	17.66	11.7	11.66	54	71.95	60.9	40.21	40.21
1SV18ME005	10	13	23	10	12	22	6	6	12	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	16.2	29.2	18.2	12.2	12.2	55.8621	66.36	62.76	42.07	42.07
1SV18ME007	10	9	19	14	13	27	10	7	17	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14.8	27.8	17.8	14.8	11.8	51.0345	63.18	61.38	51.03	40.69
1SV18ME008	11	15	26	10	9	19	7	6	13	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	17.2	31.2	15.2	13.2	12.2	59.3103	70.91	52.41	45.52	42.07
1SV18ME009	10	9	19	10	8	18	5	5	10	2	2	2	2	2	3.2	3.2	3.2	3.2	3.2	15.2	24.2	13.2	10.2	10.2	52.4138	55	45.52	35.17	35.17
1SV18ME010	10	15	25	14	13	27	10	4	14	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	17.2	36.2	20.2	17.2	11.2	59.3103	82.27	69.66	59.31	38.62
1SV18ME011	10	9	19	10	4	14	7	0	7	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	16.2	25.2	10.2	13.2	6.2	55.8621	57.27	35.17	45.52	21.38
1SV18ME012	9	6	15	10	11	21	5	4	9	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	13.8	20.8	15.8	9.8	8.8	47.5862	47.27	54.48	33.79	30.34
1SV18ME013	10	12	22	10	13	23	10	8	18	2	2	2	2	2	5	5	5	5	5	17	29	20	17	15	58.6207	65.91	68.97	58.62	51.72
1SV18EC001	10	7	17	10	12	22	10	5	15	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	17.8	24.8	19.8	17.8	12.8	61.3793	56.36	68.28	61.38	44.14
1SV18EC002	15	15	30	15	15	30	14	14	28	2	2	2	2	2	10.2	10.2	10.2	10.2	10.2	27.2	42.2	27.2	26.2	26.2	93.7931	95.91	93.79	90.34	90.34
1SV18EC003	10	8	18	6	6	12	7	0	7	2	2	2	2	2	2	2	2	2	2	16	18	10	11	4	48.2759	40.91	34.48	37.93	13.79
1SV18EC004	9	11	20	15	14	29	10	13	23	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	17.4	34.4	22.4	18.4	21.4	60	78.18	77.24	63.45	73.79
1SV18EC005	15	14	29	15	14	29	10	10	20	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	23.4	37.4	22.4	18.4	18.4	80.6897	85	77.24	63.45	63.45
1SV18EC006	15	15	30	15	15	30	10	14	24	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	24.6	39.6	24.6	19.6	23.6	84.8276	90	84.83	67.59	81.38

ID																												
1SV18EC007	15	14	29	15	14	29	14	10	24	2	2	2	2	2	8.4	8.4	8.4	8.4	8.4	25.4	39.4	24.4	24.4	20.4	87.5862	89.55	84.14	84.14	70.34
1SV18EC008	15	11	26	14	14	28	9	5	14	2	2	2	2	2	8.6	8.6	8.6	8.6	8.6	25.6	35.6	24.6	19.6	15.6	88.2759	80.91	84.83	67.59	53.79
1SV18EC009	10	11	21	15	14	29	10	15	25	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	19.6	35.6	23.6	19.6	24.6	67.5862	80.91	81.38	67.59	84.83
1SV18EC010	11	11	22	13	13	26	7	7	14	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	17.8	30.8	19.8	13.8	13.8	61.3793	70	68.28	47.59	47.59
1SV18EC011	14	14	28	15	15	30	10	10	20	2	2	2	2	2	9	9	9	9	9	25	40	26	21	21	86.2069	90.91	89.66	72.41	72.41
1SV18EC012	10	8	18	13	13	26	9	9	18	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	19.8	30.8	22.8	18.8	18.8	68.2759	70	78.62	64.83	64.83
1SV18EC013	15	15	30	15	15	30	14	15	29	2	2	2	2	2	11.4	11.4	11.4	11.4	11.4	28.4	43.4	28.4	27.4	28.4	97.931	98.64	97.93	94.48	97.93
1SV18EC014	10	13	23	14	15	29	10	10	20	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	18.4	35.4	23.4	18.4	18.4	63.4483	80.45	80.69	63.45	63.45
1SV18EC016	14	15	29	15	15	30	14	15	29	2	2	2	2	2	8	8	8	8	8	24	40	25	24	25	82.7586	90.91	86.21	82.76	86.21
1SV18EC017	7	9	16	10	5	15	5	0	5	2	2	2	2	2	3.4	3.4	3.4	3.4	3.4	12.4	24.4	10.4	10.4	5.4	42.7586	55.45	35.86	35.86	18.62
1SV18EC018	10	14	24	14	15	29	10	6	16	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	16.2	34.2	21.2	16.2	12.2	55.8621	77.73	73.1	55.86	42.07
1SV18EC019	12	12	24	10	14	24	10	5	15	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	20.4	30.4	22.4	18.4	13.4	70.3448	69.09	77.24	63.45	46.21
1SV18EC020	10	13	23	10	14	24	11	11	22	2	2	2	2	2	9.4	9.4	9.4	9.4	9.4	21.4	34.4	25.4	22.4	22.4	73.7931	78.18	87.59	77.24	77.24
1SV18EC021	12	10	22	14	14	28	11	11	22	2	2	2	2	2	5.8	5.8	5.8	5.8	5.8	19.8	31.8	21.8	18.8	18.8	68.2759	72.27	75.17	64.83	64.83
1SV18EC022	11	10	21	14	13	27	10	10	20	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	18.4	31.4	20.4	17.4	17.4	63.4483	71.36	70.34	60	60
1SV18EC023	15	10	25	14	14	28	7	7	14	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	22.2	31.2	21.2	14.2	14.2	76.5517	70.91	73.1	48.97	48.97
1SV18EC024	11	10	21	9	9	18	9	9	18	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	18.4	26.4	16.4	16.4	16.4	63.4483	60	56.55	56.55	56.55
1SV18EE001	10	9	19	11	11	22	5	4	9	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	18.8	28.8	19.8	13.8	12.8	64.8276	65.45	68.28	47.59	44.14
1SV18EE002	14	13	27	14	13	27	10	8	18	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	20.8	33.8	19.8	16.8	14.8	71.7241	76.82	68.28	57.93	51.03
1SV18EE003	10	7	17	14	15	29	10	3	13	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	17.2	28.2	22.2	17.2	10.2	59.3103	64.09	76.55	59.31	35.17
1SV18EE004	15	11	26	11	15	26	10	6	16	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	24.2	31.2	24.2	19.2	15.2	83.4483	70.91	83.45	66.21	52.41
1SV18EE005	10	8	18	8	8	16	6	6	12	2	2	2	2	2	3	3	3	3	3	15	21	13	11	11	51.7241	47.73	44.83	37.93	37.93
1SV18EE006	15	8	23	15	15	30	14	14	28	2	2	2	2	2	7.6	7.6	7.6	7.6	7.6	24.6	32.6	24.6	23.6	23.6	84.8276	74.09	84.83	81.38	81.38
1SV18EE007	15	4	19	9	10	19	10	12	22	2	2	2	2	2	6	6	6	6	6	23	21	18	18	20	79.3103	47.73	62.07	62.07	68.97
1SV18EE008	10	11	21	10	11	21	4	4	8	2	2	2	2	2	6	6	6	6	6	18	29	19	12	12	62.069	65.91	65.52	41.38	41.38
1SV18EE009	10	12	22	14	13	27	15	15	30	2	1	2	2	2	7.6	7.6	7.6	7.6	7.6	19.6	34.6	22.6	24.6	24.6	67.5862	78.64	77.93	84.83	84.83
1SV18EE010	13	13	26	11	15	26	10	5	15	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	19.2	30.2	21.2	16.2	11.2	66.2069	68.64	73.1	55.86	38.62
1SV18EE011	10	11	21	11	10	21	10	9	19	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	16.2	28.2	16.2	16.2	15.2	55.8621	64.09	55.86	55.86	52.41
1SV18EE012	10	13	23	10	12	22	9	9	18	1	2	2	2	2	5.2	5.2	5.2	5.2	5.2	16.2	30.2	19.2	16.2	16.2	55.8621	68.64	66.21	55.86	55.86
1SV18EE013	10	10	20	10	13	23	9	9	18	2	2	2	1	2	4.8	4.8	4.8	4.8	4.8	16.8	26.8	19.8	14.8	15.8	57.931	60.91	68.28	51.03	54.48
																									61.8637	66.73	67.76	55.13	49.86

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DEPARTMENT OF CHEMISTRY

SUBJECT	ENGINEERING CHEMISTRY	SUBJECT CODE	18CHE22

COURSE OUTCOME

CO1. Use of free energy equilibria rationalize bulk properties and process of using thermodynamic consideration, electrochemical energy of systems.

CO2. Causes and effects of corrosion of metals and control of corrosion modification of surface properties of metals to develop resistance to corrosion, wear and tear impact etc by electroplating and electroless plating.

CO3. Production and consumption of energy for industrialisation of country and living standards of people. Electrochemical and concentration cells. Classical, modern batteries and fuel cells. Utilization of solar energy for different useful forms of energy.

CO4. Environmental pollution, waste management and water chemistry.

CO5. Different techniques of instrumental methods of analysis. Fundamental principle of Nanomaterials.

PROGRAM OUTCOMES

PO1 Engineering knowledge: An ability to apply knowledge of mathematics (including probability, statistics and discrete mathematics), science, and engineering for solving Engineering problems and Knowledge.

PO2 Problem analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 Design / development of solutions: An ability to design solution for engineering problems and design system components or process to meet desired specifications and needs.

PO4 Conduct investigations of complex Problem: An ability to identify, formulate, comprehend, analyze, design synthesis of the information to solve complex engineering problems and provide valid conclusions.

PO5 Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling to complex engineering activities.

PO6 The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues.

PO7 Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 Communication: Communicate effectively on complex engineering activities with the engineering community and with the society.

PO11 Project management and finance: An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multidisciplinary environments.

PO12 Life-long learning: A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning.

NAME OF THE COLLEGE	SHRIDEVI INSTITUTE OF ENGINEERING & TECHNOLOGY, TUMAKURU			
FACULTY NAME	Dr. CHANDRASEKHAR. N			
BRANCH	CSE/ISE/CV	ACADEMIC YEAR		2018-19
COURSE	B.E	SEMESTER	II	SECTION	A
SUBJECT	ENGINEERING CHEMISTRY	SUBJECT CODE		18CHE22

CO & PO MAPPING

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	2	1	1	1	2	1	1	1	2
CO2	3	2	1	2	-	1	1	1	1	1	-	2
CO3	3	1	1	1	-	2	3	1	1	1	1	2
CO4	3	2	1	3	1	2	3	1	1	1	-	2
CO5	3	1	1	1	1	2	2	1	1	1	1	2
AVERAGE	3	1.6	1	1.8	1	1.6	2	1.2	1	1	1	2
OVERALL MAPPING OF SUBJECT												1.51

CO AND PO ATTAINMENT

		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	67.1	2.01	1.34	0.67	1.34	0.67	0.67	0.67	1.34	0.67	0.67	0.67	1.34
CO2	67.5	2.03	1.35	0.67	1.35	-	0.67	0.67	0.67	0.67	0.67	-	1.35
CO3	72.92	2.19	0.73	0.73	0.73	-	1.46	2.19	0.73	0.73	0.73	0.73	1.46
CO4	70.32	2.11	1.41	0.7	2.11	0.7	1.41	2.11	0.7	0.7	0.7	-	1.41
CO5	55.69	1.67	0.56	0.56	0.56	0.56	1.11	1.11	0.56	0.56	0.56	0.56	1.11
AVERAGE	65.548	2.002	1.078	0.666	1.218	0.64	1.064	1.35	0.8	0.666	0.666	0.65	1.334
FINAL ATTAINMENT LEVEL													1.01
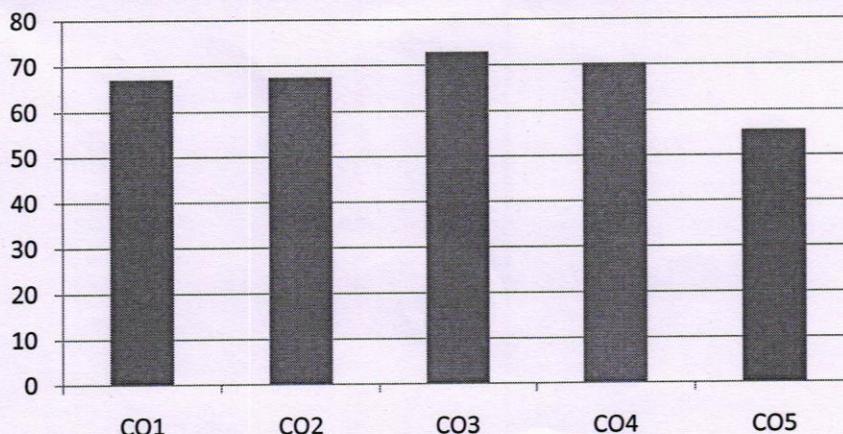
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Academic year	2018-19		SEM	I		Total strength	43										Subject	Engg. Chemistry			Subject Code	18CHE22						
SEM:II,SEC: A	IA TEST 1			IA TEST 2			IA TEST 3			ASSIGNEMENT / QUIZ					SEE MARKS					Cos ATTAINMENT					Avg of individual CO				
USN	CO1	CO2	TOTAL	CO3	CO4	TOTAL	CO4	CO5	TOTAL	CO1	CO2	CO3	CO4	CO5	CO1	CO2	CO3	CO4	CO5	CO1=29	CO2=29	CO3=29	CO4=44	CO5=29	CO1	CO2	CO3	CO4	CO5
1SV18CS001	7	8	15	14	14	28	10	3	13	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	13.2	14.2	20.2	30.2	9.2	45.52	48.97	69.66	68.64	31.72
1SV18CS002	14	13	27	10	15	25	7	6	13	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	21.2	20.2	17.2	29.2	13.2	73.1	69.66	59.31	66.36	45.52
1SV18CS003	14	15	29	15	15	30	7	7	14	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	21.6	22.6	22.6	29.6	14.6	74.48	77.93	77.93	67.27	50.34
1SV18CS004	10	7	17	15	12	27	7	0	7	2	2	2	2	2	6	6	6	6	6	18	15	23	27	8	62.07	51.72	79.31	61.36	27.59
1SV18CS005	10	13	23	15	15	30	6	6	12	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	19.2	22.2	24.2	30.2	15.2	66.21	76.55	83.45	68.64	52.41
1SV18CS006	10	13	23	14	14	28	2	0	2	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	16.2	19.2	20.2	22.2	6.2	55.86	66.21	69.66	50.45	21.38
1SV18CS007	15	15	30	15	15	30	10	15	25	2	2	2	2	2	7	7	7	7	7	24	24	24	34	24	82.76	82.76	82.76	77.27	82.76
1SV18CS008	15	15	30	15	15	30	10	3	13	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	22.2	22.2	22.2	32.2	10.2	76.55	76.55	76.55	73.18	35.17
1SV18CS009	10	14	24	10	9	19	10	3	13	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14.8	18.8	14.8	23.8	7.8	51.03	64.83	51.03	54.09	26.9
1SV18CS010	14	14	28	15	15	30	14	15	29	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	24.2	24.2	25.2	39.2	25.2	83.45	83.45	86.9	89.09	86.9
1SV18CS011	10	13	23	13	13	26	9	10	19	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	18.6	21.6	21.6	30.6	18.6	64.14	74.48	74.48	69.55	64.14
1SV18CS012	14	13	27	15	15	30	14	10	24	2	2	2	2	2	7.8	7.8	7.8	7.8	7.8	23.8	22.8	24.8	38.8	19.8	82.07	78.62	85.52	88.18	68.28
1SV18CS013	15	15	30	15	15	30	14	14	28	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	23.6	23.6	23.6	37.6	22.6	81.38	81.38	81.38	85.45	77.93
1SV18CS014	13	13	26	15	15	30	15	15	30	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	23.2	23.2	25.2	40.2	25.2	80	80	86.9	91.36	86.9
1SV18CS015	5	5	10	12	12	24	6	4	10	2	2	2	2	2	5	5	5	5	5	12	12	19	25	11	41.38	41.38	65.52	56.82	37.93
1SV18CS017	14	14	28	15	14	29	14	14	28	2	2	2	2	2	9.8	9.8	9.8	9.8	9.8	25.8	25.8	26.8	39.8	25.8	88.97	88.97	92.41	90.45	88.97
1SV18CS018	13	10	23	6	6	12	11	10	21	2	2	2	2	2	3	3	3	3	3	18	15	11	22	15	62.07	51.72	37.93	50	51.72
1SV18CS019	15	15	30	14	15	29	15	15	30	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	24.2	24.2	23.2	39.2	24.2	83.45	83.45	80	89.09	83.45
1SV18CS021	14	15	29	15	15	30	15	15	30	2	2	2	2	2	8	8	8	8	8	24	25	25	40	25	82.76	86.21	86.21	90.91	86.21
1SV18CS022	10	6	16	13	13	26	7	6	13	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	17.2	13.2	20.2	27.2	13.2	59.31	45.52	69.66	61.82	45.52
1SV18CS023	14	15	29	15	15	30	7	8	15	2	2	2	2	2	8.2	8.2	8.2	8.2	8.2	24.2	25.2	25.2	32.2	18.2	83.45	86.9	86.9	73.18	62.76
1SV18CS024	14	13	27	15	15	30	14	10	24	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	24.8	23.8	25.8	39.8	20.8	85.52	82.07	88.97	90.45	71.72
1SV18CS025	0	0	0	15	10	25	14	15	29	2	2	2	2	2	7.4	7.4	7.4	7.4	7.4	9.4	9.4	24.4	33.4	24.4	32.41	32.41	84.14	75.91	84.14
1SV18CS026	0	5	15	15	15	30	14	6	20	2	2	2	2	2	6.8	6.8	6.8	6.8	6.8	18.8	13.8	23.8	37.8	14.8	64.83	47.59	82.07	85.91	51.03
1SV18CS027	10	15	25	15	10	25	10	3	13	2	2	2	2	2	6	6	6	6	6	18	23	23	28	11	62.07	79.31	79.31	63.64	37.93
1SV18CS028	10	10	20	15	14	29	5	6	11	2	2	2	2	2	5.6	5.6	5.6	5.6	5.6	17.6	17.6	22.6	26.6	13.6	60.69	60.69	77.93	60.45	46.9
1SV18CS029	10	15	25	14	15	29	10	11	21	2	2	2	2	2	6.4	6.4	6.4	6.4	6.4	18.4	23.4	22.4	33.4	19.4	63.45	80.69	77.24	75.91	66.9
1SV18CS030	14	15	29	10	9	19	3	0	3	2	2	2	2	2	5.2	5.2	5.2	5.2	5.2	21.2	22.2	17.2	19.2	7.2	73.1	76.55	59.31	43.64	24.83
1SV18CS031	14	15	29	10	16	26	10	13	23	2	2	2	2	2	7	7	7	7	7	23	24	19	35	22	79.31	82.76	65.52	79.55	75.86
1SV18CS032	15	15	30	15	15	30	10	13	23	2	2	2	2	2	7.4	7.4	7.4	7.4	7.4	24.4	24.4	24.4	34.4	22.4	84.14	84.14	84.14	78.18	77.24
1SV18CS033	15	15	30	14	14	28	14	14	28	2	2	2	2	2	7.2	7.2	7.2	7.2	7.2	24.2	24.2	23.2	37.2	23.2	83.45	83.45	80	84.55	80
1SV18CS034	10	6	16	10	8	18	5	5	10	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	14.8	10.8	14.8	17.8	9.8	51.03	37.24	51.03	40.45	33.79
1SV18CS035	2	0	2	7	8	15	10	3	13	2	2	2	2	2	2.8	2.8	2.8	2.8	2.8	6.8	4.8	11.8	22.8	7.8	23.45	16.55	40.69	51.82	26.9
1SV18CS036	7	8	15	10	13	23	6	6	12	2	2	2	2	2	4.2	4.2	4.2	4.2	4.2	13.2	14.2	16.2	25.2	12.2	45.52	48.97	55.86	57.27	42.07
1SV18CS038	15	15	30	15	15	30	11	10	21	2	2	2	2	2	7	7	7	7	7	24	24	24	35	19	82.76	82.76	82.76	79.55	65.52
1SV18CS039	15	15	30	15	15	30	15	10	25	2	2	2	2	2	8.8	8.8	8.8	8.8	8.8	25.8	25.8	25.8	40.8	20.8	88.97	88.97	88.97	92.73	71.72
1SV18CS040	6	5	11	10	8	18	5	0	5	2	2	2	2	2	4	4	4	4	4	12	11	16	19	6	41.38	37.93	55.17	43.18	20.69
1SV18CS042	10	10	20	11	15	26	7	8	15	2	2	2	2	2	5.4	5.4	5.4	5.4	5.4	17.4	17.4	18.4	29.4	15.4	60	60	63.45	66.82	53.1
1SV18CS043	14	15	29	15	15	30	11	15	26	2	2	2	2	2	7	7	7	7	7	23	24	24	35	24	79.31	82.76	82.76	79.55	82.76
1SV18CS044	11	11	22	11	12	23	10	11	21	2	2	2	2	2	4.8	4.8	4.8	4.8	4.8	17.8	17.8	17.8	28.8	17.8	61.38	61.38	61.38	65.45	61.38
1SV18CS045	10	13	23	14	15	29	10	7	17	2	2	2	2	2	6	6	6	6	6	18	21	22	33	15	62.07	72.41	75.86	75	51.72
1SV18CS046	10	6	16	12	12	24	6	0	6	2	2	2	2	2	6.6	6.6	6.6	6.6	6.6	18.6	14.6	20.6	26.6	8.6	64.14	50.34	71.03	60.45	29.66
1SV18CS047	9	9	18	6	10	16	5	0	5	2	2	2	2	2	5	5	5	5	5	16	16	13	22	7	55.17	55.17	44.83	50	24.14
																									67.07	67.47	72.93	70.32	55.69

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