# DEPARTMENT OF CHEMISTRY

**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 | EC/EE/CV/ME | | ACADEMIC YEAR | | 2020-21 |
| COURSE | B.E | SEMESTER | I | SECTION | C |
| 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 | 1 | 1.6 | 2 | 1.2 | 1 | 1 | 1 | 2 |

| | |
|---|---|
| OVERALL MAPPING OF SUBJECT | 1.52 |

**CO AND PO ATTAINMENT**

| | CO% | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 54.82 | 1.64 | 1.09 | 0.55 | 1.09 | 0.55 | 0.55 | 0.55 | 1.09 | 0.55 | 0.55 | 0.55 | 1.09 |
| CO2 | 64.87 | 1.95 | 1.3 | 0.65 | 1.3 | - | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | - | 1.3 |
| CO3 | 63.62 | 1.91 | 0.64 | 0.64 | 0.64 | - | 1.3 | 1.91 | 0.64 | 0.64 | 0.64 | 0.64 | 1.3 |
| CO4 | 56.87 | 1.71 | 1.14 | 0.57 | 1.71 | 0.57 | 1.14 | 1.71 | 0.57 | 0.57 | 0.57 | - | 1.14 |
| CO5 | 55.66 | 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 | 59.16 | 1.776 | 0.946 | 0.594 | 1.06 | 0.56 | 0.95 | 1.186 | 0.702 | 0.594 | 0.594 | 0.58 | 1.188 |

| | |
|---|---|
| FINAL ATTAINMENT LEVEL | 0.89 |



FACULTY

HOD
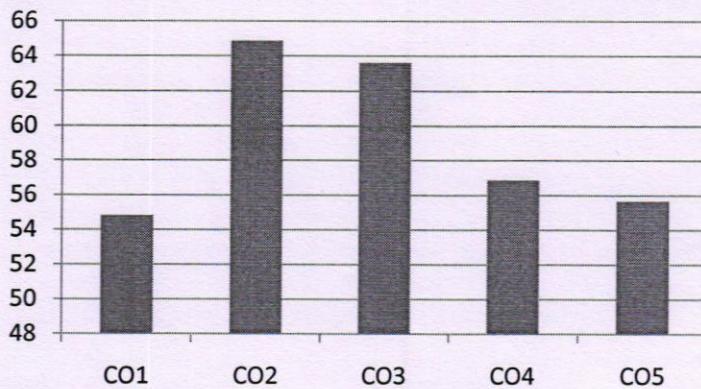
PRINCIPAL
SIET., TUMAKURU

| Academic year | 2020-21 | | | SEM | I | | | Total strength | | | 47 | | | Engineering Chemistry | | | Subject Code | 18CHEE12 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SEM:I,SEC: C | IA TEST 1(30M) | | | IA TEST 2 (30M) | | | IA TEST 3 (30M) | | | ASSIGNEMENT+QUIZ(20M) | | | | | SEE MARKS(60M) | | | | | Total COs ATTAINMENT | | | | | % of Avg of individual CO | | | | |
| USN | CO1=15 | CO5 | TOTAL | CO2 | CO3 | TOTAL | CO4 | CO5 | TOTAL | CO1=2 | CO2=2 | CO3=2 | CO4=2 | CO5=2 | CO1=12 | CO2=12 | CO3=12 | CO4=12 | CO5=12 | CO1=29 | CO2=29 | CO3=29 | CO4=29 | CO5=44 | CO1 | CO2 | CO3 | CO4 | CO5 |
| 1SV20EC001 | 10 | 8 | 18 | 14 | 14 | 28 | 7 | 6 | 13 | 2 | 2 | 2 | 2 | 2 | 6 | 6 | 6 | 6 | 6 | 18 | 22 | 22 | 15 | 22 | 62.07 | 75.86 | 75.86 | 51.72 | 50 |
| 1SV20EC002 | 5 | 5 | 10 | 10 | 7 | 17 | 5 | 2 | 7 | 2 | 2 | 2 | 2 | 2 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 8.4 | 13.4 | 10.4 | 8.4 | 10.4 | 28.97 | 46.21 | 35.86 | 28.97 | 23.64 |
| 1SV20EC003 | 15 | 7 | 22 | 12 | 15 | 27 | 14 | 7 | 21 | 2 | 2 | 2 | 2 | 2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 21.2 | 18.2 | 21.2 | 20.2 | 20.2 | 73.1 | 62.76 | 73.1 | 69.66 | 45.91 |
| 1SV20EC004 | 9 | 6 | 15 | 14 | 12 | 26 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 14.2 | 19.2 | 17.2 | 5.2 | 11.2 | 48.97 | 66.21 | 59.31 | 17.93 | 25.45 |
| 1SV20EC005 | 10 | 6 | 16 | 4 | 5 | 9 | 8 | 8 | 16 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 15 | 9 | 10 | 13 | 19 | 51.72 | 31.03 | 34.48 | 44.83 | 43.18 |
| 1SV20EC006 | 10 | 4 | 14 | 15 | 10 | 25 | 10 | 7 | 17 | 2 | 2 | 2 | 2 | 2 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 14.8 | 19.8 | 14.8 | 14.8 | 15.8 | 51.03 | 68.28 | 51.03 | 51.03 | 35.91 |
| 1SV20EC007 | 9 | 4 | 13 | 14 | 14 | 28 | 11 | 11 | 22 | 2 | 2 | 2 | 2 | 2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 15.2 | 20.2 | 20.2 | 17.2 | 21.2 | 52.41 | 69.66 | 69.66 | 59.31 | 48.18 |
| 1SV20EC008 | 14 | 8 | 22 | 15 | 10 | 25 | 10 | 15 | 25 | 2 | 2 | 2 | 2 | 2 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | 21.4 | 22.4 | 17.4 | 17.4 | 30.4 | 73.79 | 77.24 | 60 | 60 | 69.09 |
| 1SV20EC009 | 5 | 4 | 9 | 13 | 15 | 28 | 9 | 10 | 19 | 2 | 2 | 2 | 2 | 2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 11.2 | 19.2 | 21.2 | 15.2 | 20.2 | 38.62 | 66.21 | 73.1 | 52.41 | 45.91 |
| 1SV20EC010 | 14 | 11 | 25 | 15 | 11 | 26 | 10 | 15 | 25 | 2 | 2 | 2 | 2 | 2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 18.4 | 19.4 | 15.4 | 14.4 | 30.4 | 63.45 | 66.9 | 53.1 | 49.66 | 69.09 |
| 1SV20EC011 | 14 | 13 | 27 | 15 | 15 | 30 | 11 | 14 | 25 | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 18.2 | 19.2 | 19.2 | 15.2 | 31.2 | 62.76 | 66.21 | 66.21 | 52.41 | 70.91 |
| 1SV20EC012 | 0 | 0 | 0 | 4 | 5 | 9 | 7 | 7 | 14 | 2 | 2 | 2 | 2 | 2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 6.2 | 10.2 | 11.2 | 13.2 | 13.2 | 21.38 | 35.17 | 38.62 | 45.52 | 30 |
| 1SV20EC013 | 15 | 8 | 23 | 14 | 14 | 28 | 10 | 9 | 19 | 2 | 2 | 2 | 2 | 2 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 21.6 | 20.6 | 20.6 | 16.6 | 23.6 | 74.48 | 71.03 | 71.03 | 57.24 | 53.64 |
| 1SV20EC014 | 8 | 8 | 16 | 15 | 14 | 29 | 10 | 15 | 25 | 2 | 2 | 2 | 2 | 2 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 16.6 | 23.6 | 22.6 | 18.6 | 31.6 | 57.24 | 81.38 | 77.93 | 64.14 | 71.82 |
| 1SV20EC015 | 14 | 13 | 27 | 13 | 14 | 27 | 11 | 14 | 25 | 2 | 2 | 2 | 2 | 2 | 9 | 9 | 9 | 9 | 9 | 25 | 24 | 25 | 22 | 38 | 86.21 | 82.76 | 86.21 | 75.86 | 86.36 |
| 1SV20EC016 | 11 | 11 | 22 | 15 | 15 | 30 | 15 | 15 | 30 | 2 | 2 | 2 | 2 | 2 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 20.4 | 24.4 | 24.4 | 24.4 | 35.4 | 70.34 | 84.14 | 84.14 | 84.14 | 80.45 |
| 1SV20EC017 | 10 | 12 | 22 | 15 | 15 | 30 | 15 | 15 | 30 | 2 | 2 | 2 | 2 | 2 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 | 18.8 | 23.8 | 23.8 | 23.8 | 35.8 | 64.83 | 82.07 | 82.07 | 82.07 | 81.36 |
| 1SV20EC018 | 8 | 8 | 16 | 10 | 7 | 17 | 5 | 5 | 10 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 13 | 15 | 12 | 10 | 18 | 44.83 | 51.72 | 41.38 | 34.48 | 40.91 |
| 1SV19EE003 | 13 | 15 | 28 | 14 | 15 | 29 | 14 | 10 | 24 | 2 | 2 | 2 | 2 | 2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 17.4 | 18.4 | 19.4 | 18.4 | 29.4 | 60 | 63.45 | 66.9 | 63.45 | 66.82 |
| 1SV20EE001 | 10 | 8 | 18 | 14 | 14 | 28 | 10 | 7 | 17 | 2 | 2 | 2 | 2 | 2 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 15.4 | 19.4 | 19.4 | 15.4 | 20.4 | 53.1 | 66.9 | 66.9 | 53.1 | 46.36 |
| 1SV20EE002 | 5 | 2 | 7 | 0 | 0 | 0 | 5 | 5 | 10 | 2 | 2 | 2 | 2 | 2 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 8.4 | 3.4 | 3.4 | 8.4 | 10.4 | 28.97 | 11.72 | 11.72 | 28.97 | 23.64 |
| 1SV20EE003 | 13 | 15 | 28 | 14 | 15 | 29 | 10 | 15 | 25 | 2 | 2 | 2 | 2 | 2 | 7 | 7 | 7 | 7 | 7 | 22 | 23 | 24 | 19 | 39 | 75.86 | 79.31 | 82.76 | 65.52 | 88.64 |
| 1SV20EE004 | 10 | 10 | 20 | 14 | 15 | 29 | 14 | 14 | 28 | 2 | 2 | 2 | 2 | 2 | 7 | 7 | 7 | 7 | 7 | 19 | 23 | 24 | 23 | 33 | 65.52 | 79.31 | 82.76 | 79.31 | 75 |
| 1SV20EE005 | 0 | 0 | 0 | 5 | 4 | 9 | 9 | 6 | 15 | 2 | 2 | 2 | 2 | 2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 4.2 | 9.2 | 8.2 | 13.2 | 10.2 | 14.48 | 31.72 | 28.28 | 45.52 | 23.18 |
| 1SV20EE006 | 14 | 14 | 28 | 15 | 15 | 30 | 15 | 15 | 30 | 2 | 2 | 2 | 2 | 2 | 8 | 8 | 8 | 8 | 8 | 24 | 25 | 25 | 25 | 39 | 82.76 | 86.21 | 86.21 | 86.21 | 88.64 |
| 1SV20EE007 | 5 | 2 | 7 | 15 | 10 | 25 | 6 | 10 | 16 | 2 | 2 | 2 | 2 | 2 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 12.6 | 22.6 | 17.6 | 13.6 | 19.6 | 43.45 | 77.93 | 60.69 | 46.9 | 44.55 |
| 1SV20CV001 | 10 | 12 | 22 | 15 | 15 | 30 | 15 | 15 | 30 | 2 | 2 | 2 | 2 | 2 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 18.4 | 23.4 | 23.4 | 23.4 | 35.4 | 63.45 | 80.69 | 80.69 | 80.69 | 80.45 |
| 1SV20CV002 | 8 | 8 | 16 | 9 | 7 | 16 | 7 | 6 | 13 | 2 | 2 | 2 | 2 | 2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 11.2 | 12.2 | 10.2 | 10.2 | 17.2 | 38.62 | 42.07 | 35.17 | 35.17 | 39.09 |
| 1SV20CV003 | 10 | 5 | 15 | 10 | 7 | 17 | 6 | 7 | 13 | 2 | 2 | 2 | 2 | 2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 14.4 | 14.4 | 11.4 | 10.4 | 16.4 | 49.66 | 49.66 | 39.31 | 35.86 | 37.27 |
| 1SV20CV005 | 10 | 8 | 18 | 14 | 14 | 28 | 11 | 15 | 26 | 2 | 2 | 2 | 2 | 2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 17.2 | 21.2 | 21.2 | 18.2 | 30.2 | 59.31 | 73.1 | 73.1 | 62.76 | 68.64 |
| 1SV20CV006 | 10 | 7 | 17 | 14 | 14 | 28 | 4 | 5 | 9 | 2 | 2 | 2 | 2 | 2 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 13.8 | 17.8 | 17.8 | 7.8 | 15.8 | 47.59 | 61.38 | 61.38 | 26.9 | 35.91 |
| 1SV20CV007 | 10 | 10 | 20 | 14 | 13 | 27 | 14 | 14 | 28 | 2 | 2 | 2 | 2 | 2 | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 17.6 | 21.6 | 20.6 | 21.6 | 31.6 | 60.69 | 74.48 | 71.03 | 74.48 | 71.82 |
| 1SV20CV008 | 10 | 11 | 21 | 15 | 14 | 29 | 10 | 10 | 20 | 2 | 2 | 2 | 2 | 2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 16.2 | 21.2 | 20.2 | 16.2 | 27.2 | 55.86 | 73.1 | 69.66 | 55.86 | 61.82 |
| 1SV20CV009 | 9 | 9 | 18 | 15 | 14 | 29 | 14 | 10 | 24 | 2 | 2 | 2 | 2 | 2 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 16.2 | 22.2 | 21.2 | 16.2 | 26.2 | 55.86 | 76.55 | 73.1 | 55.86 | 59.55 |
| 1SV20CV010 | 10 | 15 | 25 | 15 | 14 | 29 | 10 | 10 | 20 | 2 | 2 | 2 | 2 | 2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 16.2 | 21.2 | 20.2 | 16.2 | 31.2 | 55.86 | 73.1 | 69.66 | 55.86 | 70.91 |
| 1SV20CV011 | 5 | 5 | 10 | 10 | 12 | 22 | 10 | 10 | 20 | 2 | 2 | 2 | 2 | 2 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 11.8 | 16.8 | 18.8 | 16.8 | 21.8 | 40.69 | 57.93 | 64.83 | 57.93 | 49.55 |
| 1SV20CV014 | 5 | 3 | 8 | 10 | 12 | 22 | 10 | 7 | 17 | 2 | 2 | 2 | 2 | 2 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 10.4 | 15.4 | 17.4 | 15.4 | 15.4 | 35.86 | 53.1 | 60 | 53.1 | 35 |
| 1SV20CV015 | 10 | 5 | 15 | 9 | 11 | 20 | 9 | 10 | 19 | 2 | 2 | 2 | 2 | 2 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 14.4 | 13.4 | 15.4 | 13.4 | 19.4 | 49.66 | 46.21 | 53.1 | 46.21 | 44.09 |
| 1SV20ME001 | 10 | 5 | 15 | 14 | 15 | 29 | 10 | 13 | 23 | 2 | 2 | 2 | 2 | 2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 16.2 | 20.2 | 21.2 | 16.2 | 24.2 | 55.86 | 69.66 | 73.1 | 55.86 | 55 |
| 1SV20ME002 | 10 | 12 | 22 | 15 | 15 | 30 | 15 | 10 | 25 | 2 | 2 | 2 | 2 | 2 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | 17.4 | 22.4 | 22.4 | 22.4 | 29.4 | 60 | 77.24 | 77.24 | 77.24 | 66.82 |
| 1SV20ME003 | 10 | 9 | 19 | 10 | 11 | 21 | 10 | 10 | 20 | 2 | 2 | 2 | 2 | 2 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 17.8 | 17.8 | 18.8 | 17.8 | 26.8 | 61.38 | 61.38 | 64.83 | 61.38 | 60.91 |
| 1SV20ME004 | 9 | 8 | 17 | 9 | 12 | 21 | 9 | 7 | 16 | 2 | 2 | 2 | 2 | 2 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 15.4 | 15.4 | 18.4 | 15.4 | 21.4 | 53.1 | 53.1 | 63.45 | 53.1 | 48.64 |
| 1SV20ME005 | 5 | 8 | 13 | 10 | 13 | 23 | 10 | 9 | 19 | 2 | 2 | 2 | 2 | 2 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 12.8 | 17.8 | 20.8 | 17.8 | 24.8 | 44.14 | 61.38 | 71.72 | 61.38 | 56.36 |
| 1SV20ME006 | 9 | 12 | 21 | 14 | 14 | 28 | 14 | 10 | 24 | 2 | 2 | 2 | 2 | 2 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 18.8 | 23.8 | 23.8 | 23.8 | 31.8 | 64.83 | 82.07 | 82.07 | 82.07 | 72.27 |
| 1SV20ME007 | 10 | 5 | 15 | 9 | 6 | 15 | 9 | 9 | 18 | 2 | 2 | 2 | 2 | 2 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 14.8 | 13.8 | 10.8 | 13.8 | 18.8 | 51.03 | 47.59 | 37.24 | 47.59 | 42.73 |
| 1SV20ME008 | 4 | 4 | 8 | 13 | 13 | 26 | 10 | 10 | 20 | 2 | 2 | 2 | 2 | 2 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 12.4 | 21.4 | 21.4 | 18.4 | 22.4 | 42.76 | 73.79 | 73.79 | 63.45 | 50.91 |
| 1SV20ME009 | 15 | 12 | 27 | 15 | 14 | 29 | 10 | 15 | 25 | 2 | 2 | 2 | 2 | 2 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 23.2 | 23.2 | 22.2 | 18.2 | 35.2 | 80 | 80 | 76.55 | 62.76 | 80 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 54.82 | 64.87 | 63.62 | 56.87 | 55.67 |

FACULTY

HOD

PRINCIPAL

PRINCIPAL
SIET., TUMAKURU

## DEPARTMENT OF CHEMISTRY

| SUBJECT | ENGINEERING CHEMISTRY | SUBJECT CODE | 18CHE22 |
|---------|----------------------|--------------|---------|

## COURSE OUTCOME

**CO1.** Use of free energy equilibrium 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 | | ACADEMIC YEAR | | 2020-21 |
| COURSE | B.E | SEMESTER | II | SECTION | A & B |
| 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** 1.52

## CO AND PO ATTAINMENT

| | CO% | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | 76.91 | 2.28 | 1.52 | 0.77 | 1.52 | 0.77 | 0.77 | 0.77 | 1.52 | 0.77 | 0.77 | 0.77 | 1.52 |
| CO2 | 71.90 | 2.15 | 1.44 | 0.72 | 1.44 | - | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | - | 1.44 |
| CO3 | 74.20 | 2.22 | 0.74 | 0.74 | 0.74 | - | 1.5 | 2.22 | 0.74 | 0.74 | 0.74 | 0.74 | 1.5 |
| CO4 | 69.89 | 2.06 | 1.4 | 0.7 | 2.06 | 0.7 | 1.4 | 2.06 | 0.7 | 0.7 | 0.7 | - | 1.4 |
| CO5 | 77.30 | 2.31 | 0.77 | 0.77 | 0.77 | 0.77 | 1.54 | 1.54 | 0.77 | 0.77 | 0.77 | 0.77 | 1.54 |
| AVERAGE | 74.04 | 2.204 | 1.174 | 0.74 | 1.306 | 0.75 | 1.186 | 1.462 | 0.89 | 0.74 | 0.74 | 0.76 | 1.48 |

**FINAL ATTAINMENT LEVEL** 1.12



FACULTY

HOD
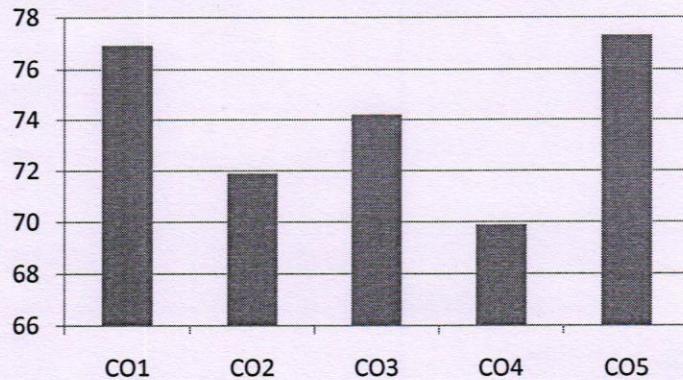
PRINCIPAL
SIET., TUMAKURU.

| Academic year | 2020-21 | | SEM | II | | | Total strength | | 69 | | Engineering Chemistry | | Subject Code 18CHEE12 | | | | Avg of individual CO | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**SEM:I,SEC: A&B**

| USN | IA TEST 1 (30M) CO1=15 | CO5=15 | TOTAL | IA TEST 2 (30M) CO2=15 | CO3=15 | TOTAL | IA TEST 3 (30M) CO3 | CO4=15 | TOTAL | ASSIGNEMENT (10M)+10 Gr CO1=4 | CO2=4 | CO3=4 | CO4=4 | CO5=4 | SEE MARKS(50M) CO1=10 | CO2=10 | CO3=10 | CO4=10 | CO5=10 | Total Cos ATTAINMENT CO1=29 | CO2=29 | CO3=44 | CO4=29 | CO5=29 | Avg of individual CO CO1 | CO2 | CO3 | CO4 | CO5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1SV20CS001 | 14 | 13 | 27 | 15 | 14 | 29 | 15 | 10 | 25 | 4 | 4 | 4 | 4 | 4 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 23.2 | 24.2 | 38.2 | 19.2 | 22.2 | 80 | 83.45 | 86.82 | 38 | 76.55 |
| 1SV20CS002 | 14 | 15 | 29 | 15 | 14 | 29 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 24.2 | 25.2 | 39.2 | 25.2 | 25.2 | 83.45 | 86.9 | 89.09 | 86.9 | 86.9 |
| 1SV20CS003 | 15 | 14 | 29 | 15 | 14 | 29 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 26.8 | 26.8 | 40.8 | 26.8 | 25.8 | 92.41 | 92.41 | 92.73 | 92.41 | 88.97 |
| 1SV20CS004 | 10 | 15 | 25 | 15 | 14 | 29 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 20.2 | 25.2 | 38.2 | 25.2 | 25.2 | 69.66 | 86.9 | 86.82 | 86.9 | 86.9 |
| 1SV20CS005 | 14 | 14 | 28 | 15 | 15 | 30 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 | 26.2 | 27.2 | 42.2 | 27.2 | 26.2 | 90.34 | 93.79 | 95.91 | 93.79 | 90.34 |
| 1SV20CS006 | 14 | 10 | 24 | 15 | 15 | 30 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 25.6 | 26.6 | 41.6 | 26.6 | 21.6 | 88.28 | 91.72 | 94.55 | 91.72 | 74.48 |
| 1SV20CS007 | 10 | 15 | 25 | 14 | 10 | 24 | 15 | 10 | 25 | 4 | 4 | 4 | 4 | 4 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 20.8 | 24.8 | 38.8 | 24.8 | 23.8 | 71.72 | 85.52 | 88.18 | 85.52 | 82.07 |
| 1SV20CS008 | 11 | 14 | 25 | 15 | 15 | 30 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 26.2 | 26.2 | 39.2 | 26.2 | 26.2 | 90.34 | 90.34 | 89.09 | 90.34 | 90.34 |
| 1SV20CS009 | 15 | 15 | 30 | 15 | 14 | 29 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 7 | 7 | 7 | 7 | 7 | 20 | 22 | 38 | 26 | 26 | 68.97 | 75.86 | 86.36 | 89.66 | 89.66 |
| 1SV20CS010 | 9 | 15 | 24 | 11 | 14 | 25 | 13 | 15 | 28 | 4 | 4 | 4 | 4 | 4 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 16.8 | 15.8 | 28.8 | 14.8 | 16.8 | 57.93 | 54.48 | 65.45 | 51.03 | 57.93 |
| 1SV20CS011 | 9 | 9 | 18 | 8 | 12 | 20 | 9 | 7 | 16 | 4 | 4 | 4 | 4 | 4 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 24.8 | 20.8 | 35.8 | 21.8 | 23.8 | 85.52 | 71.72 | 81.36 | 75.17 | 82.07 |
| 1SV20CS012 | 15 | 14 | 29 | 11 | 14 | 25 | 12 | 12 | 24 | 4 | 4 | 4 | 4 | 4 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 21.2 | 24.2 | 41.2 | 26.2 | 21.2 | 73.1 | 83.45 | 93.64 | 90.34 | 73.1 |
| 1SV20CS013 | 10 | 10 | 20 | 13 | 15 | 28 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 24.2 | 26.2 | 41.2 | 26.2 | 24.2 | 83.45 | 90.34 | 93.64 | 90.34 | 83.45 |
| 1SV20CS014 | 13 | 13 | 26 | 15 | 15 | 30 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 6.8 | 6.8 | 6.8 | 6.8 | 6.8 | 23.8 | 25.8 | 32.8 | 23.8 | 24.8 | 82.07 | 88.97 | 74.55 | 82.07 | 85.52 |
| 1SV20CS015 | 13 | 14 | 27 | 15 | 10 | 25 | 12 | 13 | 25 | 4 | 4 | 4 | 4 | 4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 24.4 | 24.4 | 38.4 | 25.4 | 24.4 | 84.14 | 84.14 | 87.27 | 87.59 | 84.14 |
| 1SV20CS016 | 14 | 14 | 28 | 14 | 14 | 28 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 23 | 24 | 36 | 20 | 23 | 79.31 | 82.76 | 81.82 | 68.97 | 79.31 |
| 1SV20CS017 | 13 | 13 | 26 | 14 | 14 | 28 | 12 | 10 | 22 | 4 | 4 | 4 | 4 | 4 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 21.2 | 24.2 | 32.2 | 25.2 | 22.2 | 73.1 | 83.45 | 73.18 | 86.9 | 76.55 |
| 1SV20CS018 | 11 | 12 | 23 | 14 | 8 | 22 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 22.2 | 15.2 | 15.2 | 8.2 | 22.2 | 76.55 | 52.41 | 34.55 | 28.28 | 76.55 |
| 1SV20CS019 | 14 | 14 | 28 | 7 | 7 | 14 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 21.2 | 23.2 | 37.2 | 15.2 | 21.2 | 73.1 | 80 | 84.55 | 52.41 | 73.1 |
| 1SV20CS020 | 13 | 13 | 26 | 15 | 15 | 30 | 14 | 7 | 21 | 4 | 4 | 4 | 4 | 4 | 6.2 | 6.2 | 6.2 | 6.2 | 6.2 | 25.2 | 24.2 | 26.2 | 25.2 | 25.2 | 86.9 | 83.45 | 59.55 | 86.9 | 86.9 |
| 1SV20CS021 | 15 | 15 | 30 | 14 | 8 | 22 | 8 | 15 | 23 | 4 | 4 | 4 | 4 | 4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 23.4 | 24.4 | 30.4 | 17.4 | 24.4 | 80.69 | 84.14 | 69.09 | 60 | 84.14 |
| 1SV20CS022 | 13 | 14 | 27 | 14 | 11 | 25 | 9 | 7 | 16 | 4 | 4 | 4 | 4 | 4 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 20.8 | 23.8 | 36.8 | 17.8 | 20.8 | 71.72 | 82.07 | 83.64 | 61.38 | 71.72 |
| 1SV20CS023 | 11 | 11 | 22 | 14 | 14 | 28 | 13 | 8 | 21 | 4 | 4 | 4 | 4 | 4 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 20.6 | 25.6 | 40.6 | 25.6 | 17.6 | 71.03 | 88.28 | 92.27 | 88.28 | 60.69 |
| 1SV20CS024 | 10 | 7 | 17 | 15 | 15 | 30 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 17.4 | 11.4 | 15.4 | 7.4 | 19.4 | 60 | 39.31 | 35 | 25.52 | 66.9 |
| 1SV20CS025 | 10 | 12 | 22 | 4 | 8 | 12 | | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 20.2 | 7.2 | 12.2 | 7.2 | 17.2 | 69.66 | 24.83 | 27.73 | 24.83 | 59.31 |
| 1SV20CS026 | 13 | 10 | 23 | 0 | 0 | 0 | 5 | 0 | 5 | 4 | 4 | 4 | 4 | 4 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 20.6 | 17.6 | 31.6 | 23.6 | 19.6 | 71.03 | 60.69 | 71.82 | 81.38 | 67.59 |
| 1SV20CS027 | 12 | 11 | 23 | 9 | 9 | 18 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 5.4 | 5.4 | 5.4 | 5.4 | 5.4 | 24.4 | 24.4 | 28.4 | 16.4 | 24.4 | 84.14 | 84.14 | 64.55 | 56.55 | 84.14 |
| 1SV20CS028 | 15 | 15 | 30 | 15 | 8 | 23 | 11 | 7 | 18 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 20 | 25 | 35 | 21 | 25 | 68.97 | 86.21 | 79.55 | 72.41 | 86.21 |
| 1SV20CS029 | 10 | 15 | 25 | 15 | 15 | 30 | 10 | 11 | 21 | 4 | 4 | 4 | 4 | 4 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 23.2 | 18.2 | 32.2 | 16.2 | 18.2 | 80 | 62.76 | 73.18 | 55.86 | 62.76 |
| 1SV20CS030 | 15 | 10 | 25 | 10 | 15 | 25 | 9 | 8 | 17 | 4 | 4 | 4 | 4 | 4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 21.4 | 16.4 | 21.4 | 16.4 | 24.4 | 73.79 | 56.55 | 48.64 | 56.55 | 84.14 |
| 1SV20CS031 | 10 | 13 | 23 | 5 | 5 | 10 | 5 | 5 | 10 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 23 | 14 | 31 | 11 | 22 | 79.31 | 48.28 | 70.45 | 37.93 | 75.86 |
| 1SV20CS032 | 14 | 13 | 27 | 5 | 8 | 13 | 14 | 2 | 16 | 4 | 4 | 4 | 4 | 4 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 25.2 | 19.2 | 41.2 | 26.2 | 25.2 | 86.9 | 66.21 | 93.64 | 90.34 | 86.9 |
| 1SV20CS033 | 14 | 14 | 28 | 8 | 15 | 23 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 8 | 8 | 8 | 8 | 8 | 26 | 26 | 41 | 27 | 27 | 89.66 | 89.66 | 93.18 | 93.1 | 93.1 |
| 1SV20CS034 | 14 | 15 | 29 | 14 | 15 | 29 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 21.8 | 24.8 | 40.8 | 26.8 | 22.8 | 75.17 | 85.52 | 92.73 | 92.41 | 78.62 |
| 1SV20CS035 | 10 | 11 | 21 | 13 | 15 | 28 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 23.4 | 25.4 | 40.4 | 26.4 | 23.4 | 80.69 | 87.59 | 91.82 | 91.03 | 80.69 |
| 1SV20CS036 | 12 | 12 | 24 | 14 | 15 | 29 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 8.4 | 8.4 | 8.4 | 8.4 | 8.4 | 27.4 | 27.4 | 42.4 | 27.4 | 26.4 | 94.48 | 94.48 | 96.36 | 94.48 | 91.03 |
| 1SV20CS037 | 15 | 14 | 29 | 15 | 15 | 30 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 18.6 | 17.6 | 34.6 | 23.6 | 22.6 | 64.14 | 60.69 | 78.64 | 81.38 | 77.93 |
| 1SV20CS038 | 10 | 14 | 24 | 9 | 14 | 23 | 12 | 15 | 27 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 20 | 15 | 38 | 23 | 22 | 68.97 | 51.72 | 86.36 | 79.31 | 75.86 |
| 1SV20CS039 | 11 | 13 | 24 | 6 | 15 | 21 | 14 | 14 | 28 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 20 | 20 | 39 | 24 | 23 | 68.97 | 68.97 | 88.64 | 82.76 | 79.31 |
| 1SV20CS040 | 10 | 13 | 23 | 10 | 15 | 25 | 14 | 14 | 28 | 4 | 4 | 4 | 4 | 4 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 22.6 | 16.6 | 16.6 | 7.6 | 17.6 | 77.93 | 57.24 | 37.73 | 26.21 | 60.69 |
| 1SV20CS041 | 15 | 10 | 25 | 9 | 9 | 18 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | 25.4 | 24.4 | 36.4 | 20.4 | 25.4 | 87.59 | 84.14 | 82.73 | 70.34 | 87.59 |
| 1SV20CS042 | 15 | 15 | 30 | 14 | 12 | 26 | 14 | 10 | 24 | 4 | 4 | 4 | 4 | 4 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 23.2 | 22.2 | 39.2 | 24.2 | 22.2 | 80 | 76.55 | 89.09 | 83.45 | 76.55 |
| 1SV20CS043 | 14 | 13 | 27 | 13 | 15 | 28 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 20 | 15 | 20 | 24 | 24 | 68.97 | 51.72 | 45.45 | 82.76 | 82.76 |
| 1SV20CS045 | 10 | 14 | 24 | 5 | 5 | 10 | 5 | 14 | 19 | 4 | 4 | 4 | 4 | 4 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 23.2 | 17.2 | 19.2 | 17.2 | 19.2 | 80 | 59.31 | 43.64 | 59.31 | 66.21 |
| 1SV20CS046 | 14 | 10 | 24 | 8 | 5 | 13 | 5 | 8 | 13 | 4 | 4 | 4 | 4 | 4 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 20.8 | 7.8 | 7.8 | 7.8 | 20.8 | 71.72 | 26.9 | 26.9 | 26.9 | 71.72 |
| 1SV20CS047 | 13 | 13 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 4 | 7 | 7 | 7 | 7 | 7 | 21 | 21 | 41 | 14.8 | 22.8 | 72.41 | 72.41 | 93.18 | 86.21 | 79.31 |
| 1SV20CS048 | 10 | 12 | 22 | 10 | 15 | 25 | 15 | 14 | 29 | 4 | 4 | 4 | 4 | 4 | 7 | 7 | 7 | 7 | 7 | 21 | 21 | 41 | 25 | 23 | 78.62 | 51.03 | 45 | 51.03 | 78.62 |
| 1SV20CS049 | 13 | 13 | 26 | 5 | 5 | 10 | 5 | 5 | 10 | 4 | 4 | 4 | 4 | 4 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 22.8 | 14.8 | 19.8 | 14.8 | 22.8 | 78.62 | 51.03 | 45 | 51.03 | 78.62 |
| 1SV20CS050 | 15 | 15 | 30 | 14 | 15 | 29 | 14 | 14 | 28 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 25 | 24 | 39 | 24 | 25 | 86.21 | 82.76 | 88.64 | 82.76 | 86.21 |

| USN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 10 | 15 | 25 | 15 | 15 | 30 | 14 | 14 | 28 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 20 | 25 | 39 | 24 | 25 | 68.97 | 86.21 | 88.64 | 82.76 | 86.21 |
| ISV20CS051 | 10 | 15 | 25 | 15 | 7 | 22 | 11 | 14 | 25 | 4 | 4 | 4 | 4 | 4 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 19.6 | 23.6 | 26.6 | 22.6 | 20.6 | 67.59 | 81.38 | 60.45 | 77.93 | 71.03 |
| ISV20CS052 | 11 | 12 | 23 | 15 | 14 | 29 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 21.6 | 19.6 | 37.6 | 23.6 | 21.6 | 74.48 | 67.59 | 85.45 | 81.38 | 74.48 |
| ISV20CS053 | 13 | 13 | 26 | 11 | 14 | 25 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 27.8 | 26.8 | 42.8 | 27.8 | 26.8 | 95.86 | 92.41 | 97.27 | 95.86 | 92.41 |
| ISV20CS054 | 15 | 14 | 29 | 14 | 15 | 29 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 25 | 24 | 39 | 25 | 20 | 86.21 | 82.76 | 88.64 | 86.21 | 68.97 |
| ISV20CS055 | 15 | 10 | 25 | 14 | 14 | 28 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 | 26.8 | 16.8 | 21.8 | 16.8 | 25.8 | 92.41 | 57.93 | 49.55 | 57.93 | 88.97 |
| ISV20CS056 | 15 | 14 | 29 | 5 | 5 | 10 | 5 | 5 | 10 | 4 | 4 | 4 | 4 | 4 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 21.8 | 14.8 | 21.8 | 11.8 | 21.8 | 75.17 | 51.03 | 49.55 | 40.69 | 75.17 |
| ISV20IS001 | 15 | 15 | 30 | 8 | 4 | 12 | 11 | 5 | 16 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 20 | 24 | 38 | 24 | 25 | 68.97 | 82.76 | 86.36 | 82.76 | 86.21 |
| ISV20IS002 | 10 | 15 | 25 | 14 | 14 | 28 | 14 | 14 | 28 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 17 | 21 | 33 | 25 | 18 | 58.62 | 72.41 | 75 | 86.21 | 62.07 |
| ISV20IS003 | 7 | 8 | 15 | 11 | 9 | 20 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 19.8 | 15.8 | 29.8 | 13.8 | 20.8 | 68.28 | 54.48 | 67.73 | 47.59 | 71.72 |
| ISV20IS004 | 14 | 15 | 29 | 10 | 10 | 20 | 14 | 8 | 22 | 4 | 4 | 4 | 4 | 4 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 18.6 | 14.6 | 19.6 | 9.6 | 18.6 | 64.14 | 50.34 | 44.55 | 33.1 | 64.14 |
| ISV20IS005 | 14 | 14 | 28 | 10 | 0 | 10 | 15 | 5 | 20 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 25 | 18 | 37 | 24 | 20 | 86.21 | 62.07 | 84.09 | 82.76 | 68.97 |
| ISV20IS006 | 15 | 10 | 25 | 8 | 12 | 20 | 15 | 14 | 29 | 4 | 4 | 4 | 4 | 4 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 14.6 | 12.6 | 30.6 | 11.6 | 14.6 | 50.34 | 43.45 | 69.55 | 40 | 50.34 |
| ISV20IS007 | 10 | 10 | 20 | 8 | 14 | 22 | 12 | 7 | 19 | 4 | 4 | 4 | 4 | 4 | 5.2 | 5.2 | 5.2 | 5.2 | 5.2 | 20.2 | 22.2 | 34.2 | 17.2 | 20.2 | 69.66 | 76.55 | 77.73 | 59.31 | 69.66 |
| ISV20IS008 | 11 | 11 | 22 | 13 | 11 | 24 | 14 | 8 | 22 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | 1 | 15 | 19 | 21 | 9 | 19 | 51.72 | 65.52 | 47.73 | 31.03 | 65.52 |
| ISV20IS009 | 10 | 14 | 24 | 14 | 11 | 25 | 5 | 4 | 9 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 24 | 24 | 34 | 21 | 25 | 82.76 | 82.76 | 77.27 | 72.41 | 86.21 |
| ISV20IS010 | 14 | 15 | 29 | 14 | 11 | 25 | 13 | 11 | 24 | 4 | 4 | 4 | 4 | 4 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 23.2 | 19.2 | 32.2 | 23.2 | 23.2 | 80 | 66.21 | 73.18 | 80 | 80 |
| ISV20IS011 | 15 | 15 | 30 | 11 | 9 | 20 | 15 | 15 | 30 | 4 | 4 | 4 | 4 | 4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 21.4 | 16.4 | 31.4 | 6.4 | 20.4 | 73.79 | 56.55 | 71.36 | 22.07 | 70.34 |
| ISV20IS012 | 15 | 14 | 29 | 10 | 10 | 20 | 15 | 0 | 15 | 4 | 4 | 4 | 4 | 4 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 15.8 | 12.8 | 28.8 | 18.8 | 15.8 | 54.48 | 44.14 | 65.45 | 64.83 | 54.48 |
| ISV20IS013 | 11 | 11 | 22 | 8 | 10 | 18 | 14 | 14 | 28 | 4 | 4 | 4 | 4 | 4 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 23.2 | 22.2 | 27.2 | 23.2 | 23.2 | 80 | 76.55 | 61.82 | 80 | 80 |
| ISV20IS014 | 15 | 15 | 30 | 14 | 5 | 19 | 14 | 15 | 29 | 4 | 4 | 4 | 4 | 4 | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 76.1 | 71.9 | 74.2 | 69.9 | 77.3 |

FACULTY

HOD

PRINCIPAL

**PRINCIPAL**
SIET., TUMAKURU.