BASIC ELECTRONICS ENGINEERING LAB

Code: EC 291(second Semester)

Syllabus

1.Study of I-V characteristics of Field Effect Transistors.

2.Determination of input-offset voltage, input bias current and Slew rate of OPAMPs.

3.Determination of Common-mode Rejection ratio, Bandwidth and Off-set null of OPAMPs.

4.Study of OPAMP circuits: Inverting and Non-inverting amplifiers, Adders, Integrators and Differentiators.

5.Study of Logic Gates and realization of Boolean functions using Logic Gates.

6.Study of Characteristic curves for CB, CE and CC mode transistors.

Cours outcome

|  |  |
| --- | --- |
| CO | Statement |
| CO1 | Analyze the I-V characteristics of Field Effect Transistors. |
| CO2 | Evaluate the input-offset voltage, input bias current and Slew rate, Common-mode Rejection ratio, Bandwidth and Off-set null of OPAMPs. |
| CO3 | Understand Inverting and Non-inverting amplifiers, Adders, Integrators and Differentiators circuits |
| CO4 | Knoledge of Boolean functions using Logic Gates. |
| CO5 | Analyze the characteristic curves for CB, CE and CC mode transistors |

Mapping with CO with PSO

|  |  |  |  |
| --- | --- | --- | --- |
|  | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 2 | 1 |
| CO2 | 3 | 2 | 1 |
| CO3 | 3 | 2 | 1 |
| CO4 | 3 | 2 | 1 |
| CO5 | 3 | 2 | 1 |
| AVG OF ES 291 | 3 | 2 | 1 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| COs | Test-1 (T1)  (10) | Test-2 (T2) (10) | Test-3 (T3) (10) | Test-4 (T4) (10) |
| CO1 | Q1,Q2 | Q1 | Q1 | Q2 |
| CO2 | Q2 | Q2,Q3 | Q3 | Q1 |
| CO3 | - | Q3 | Q2 | Q2,Q3 |
| CO4 | Q4,Q5 | Q4,Q5 | Q4 | - |
| CO5 | - | - | Q5 | Q4,Q5 |

Test-1: Configuration of circuit/writing of code

Test-2: Demonstration

Test-3: Report

Test-4: Viva

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Max Marks | 2 | 2 | 2 | 2 | 2 |  |  | % | SCORE OR GRADING BASED ON SCALE OF 3 | TARGET >=60% |
| Course outcome | CO1 | | | | | TOTAL OBTAINED | TOTAL MARKS ATTEMPTED |
| Name | T1-Q1 | T1-Q2 | T2-Q1 | T3-Q1 | T4-Q2 |
| Abhimanyu Raj | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | y |
| Abhirup Dey | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Aditya Kamlesh Shah | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Akanksha Singh | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Akash Agarwal | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Alok Kumar | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ananya Sahana | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Aniket Daw | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Anirban Ghosh | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Aniruddha Datta | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Ankhi Debnath | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Anniksha Ghosh | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Anu Sarkar | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Arghadeep Basu | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Aritra Manna | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Arka Das | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Arnab Kumar Das | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Arpan Chakraborty | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Aruniva Nath | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Ashmita Saha | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Asmita Saha | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Atanu Jana | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Avijit Kumar | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Avik Pal | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ayan Ghosh | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Babloo Kumar Shaw | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Baishali Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Bratati Chakraborty | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Debayan Chakraborty | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Deep Bhattacharjee | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Dipanjan Datta Roy | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Dipanjan Ray Chaudhuri | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Donal Das | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Faiz Ali | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Hemant Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Himanshu Sharma | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Hitesh Shukla | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Indranil Kundu | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Indranil Paul | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Ishita Biswas | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Jayank Das | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Kalpataru Maity | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Koustav Bag | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Krishna Bindu Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | N |
| Mainak Chakraborty | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | N |
| Manish Kumar | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Manish Kumar Singh | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Manisha Adak | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Md. Kamaruzzaman | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Md. Rashid Feroze | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Md .Sajid Ali | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Md. Sharique Zafar | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Merry Paul | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Mohsina Parveen | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Monalisa Dandapat | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Nandita Mahajan | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Oindrila Choudhury | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 |  | Y |
| Payal Saha | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 2 | N |
| Poulami Das | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Pourabi Roychowdhury | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Prashanta Paul | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Pratibha Maurya | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Priyanka Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Puja Kumari Shaw | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Raghib Ahsan | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 2 | N |
| Rahul Das | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Rahul Sekhar Das | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Raihan Kabir | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Rajiv Kumar Singh | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ranit Sen | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Ravi Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Renu Kumari | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Rituparno Dutta | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Rivu Ghosh | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Ronit Bhattacharyya | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Sagnik Biswas | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Saheli Saha | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Santodeb Dutta | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Saptarshi Das | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Saptarshi Podder | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sarthak Das Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sayan Ghosh | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Sayantan Bhuin | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 2 | N |
| Sayantani Mukherjee | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Shaleen Basak | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shibam Chatterjee | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Shilpa Chakraborty | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 2 | N |
| Shivam Verma | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Shramana Bhowmik | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Shreyashi Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shubhashree Roy | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shweta Saha | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Siddhartha Majumdar | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Silpa Saha | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sinthia Madhurima Panja | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Sk. Masud Ali | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 2 | N |
| Somnath Dey | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 2 | N |
| Soumya Guha | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sreyasi Das | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Srijan Deb | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Subhankar Maity | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Subhojit Dey | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Suchismita Sengupta | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 2 | N |
| Sukanya Chaudhury | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Sulagna Bhattacharya | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Sulagna Chakraborty | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Suman Sardar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sumanta Banerjee | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Supriyo sen | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Suranjana Saha | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Swagata Das | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Swaraj Dutta | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Swati Samai | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Syed Sadain Abid Hussain | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Talha Nehal | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | N |
| Tanmoy Kundu | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Tapas Banik | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | N |
|  |  |  |  |  |  |  |  | AVG | 2.7931 |  |
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|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Max Marks | 2 | 2 | 2 | 2 | 2 |  |  | % | SCORE OR GRADING BASED ON SCALE OF 3 | TARGET >=60% |
| Course outcome | CO2 | | | | | TOTAL OBTAINED | TOTAL MARKS ATTEMPTED |
| Name | T1-Q2 | T2-Q2 | T2-Q3 | T3-Q3 | T4-Q1 |
| Abhimanyu Raj | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | y |
| Abhirup Dey | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Aditya Kamlesh Shah | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Akanksha Singh | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Akash Agarwal | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Alok Kumar | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ananya Sahana | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Aniket Daw | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Anirban Ghosh | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Aniruddha Datta | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Ankhi Debnath | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Anniksha Ghosh | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Anu Sarkar | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Arghadeep Basu | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Aritra Manna | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Arka Das | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Arnab Kumar Das | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Arpan Chakraborty | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Aruniva Nath | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Ashmita Saha | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Asmita Saha | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Atanu Jana | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Avijit Kumar | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Avik Pal | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ayan Ghosh | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Babloo Kumar Shaw | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Baishali Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Bratati Chakraborty | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Debayan Chakraborty | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Deep Bhattacharjee | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Dipanjan Datta Roy | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Dipanjan Ray Chaudhuri | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Donal Das | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Faiz Ali | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Hemant Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Himanshu Sharma | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Hitesh Shukla | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Indranil Kundu | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Indranil Paul | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Ishita Biswas | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Jayank Das | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Kalpataru Maity | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Koustav Bag | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Krishna Bindu Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | N |
| Mainak Chakraborty | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | N |
| Manish Kumar | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Manish Kumar Singh | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Manisha Adak | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Md. Kamaruzzaman | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Md. Rashid Feroze | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Md .Sajid Ali | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Md. Sharique Zafar | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Merry Paul | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Mohsina Parveen | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Monalisa Dandapat | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Nandita Mahajan | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Oindrila Choudhury | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 |  | Y |
| Payal Saha | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 2 | N |
| Poulami Das | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Pourabi Roychowdhury | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Prashanta Paul | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Pratibha Maurya | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Priyanka Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Puja Kumari Shaw | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Raghib Ahsan | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 2 | N |
| Rahul Das | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Rahul Sekhar Das | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Raihan Kabir | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Rajiv Kumar Singh | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ranit Sen | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Ravi Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Renu Kumari | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Rituparno Dutta | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Rivu Ghosh | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Ronit Bhattacharyya | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Sagnik Biswas | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Saheli Saha | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Santodeb Dutta | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Saptarshi Das | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Saptarshi Podder | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sarthak Das Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sayan Ghosh | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Sayantan Bhuin | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 2 | N |
| Sayantani Mukherjee | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Shaleen Basak | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shibam Chatterjee | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Shilpa Chakraborty | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 2 | N |
| Shivam Verma | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Shramana Bhowmik | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Shreyashi Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shubhashree Roy | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shweta Saha | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Siddhartha Majumdar | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Silpa Saha | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sinthia Madhurima Panja | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Sk. Masud Ali | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 2 | N |
| Somnath Dey | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 2 | N |
| Soumya Guha | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sreyasi Das | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Srijan Deb | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Subhankar Maity | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Subhojit Dey | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Suchismita Sengupta | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 2 | N |
| Sukanya Chaudhury | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Sulagna Bhattacharya | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Sulagna Chakraborty | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Suman Sardar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sumanta Banerjee | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Supriyo sen | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Suranjana Saha | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Swagata Das | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Swaraj Dutta | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Swati Samai | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 2 | N |
| Syed Sadain Abid Hussain | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Talha Nehal | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Tanmoy Kundu | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Tapas Banik | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
|  |  |  |  |  |  |  |  | AVG | 2.7845 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Max Marks | 2 | 2 | 2 | 2 |  |  |  | % | SCORE OR GRADING BASED ON SCALE OF 3 | TARGET >=60% |
| Course outcome | CO3 | | | | | TOTAL OBTAINED | TOTAL MARKS ATTEMPTED |
| Name | T2-Q3 | T3-Q2 | T4-Q2 | T4-Q3 |  |
| Abhimanyu Raj | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | y |
| Abhirup Dey | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Aditya Kamlesh Shah | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Akanksha Singh | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Akash Agarwal | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Alok Kumar | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Ananya Sahana | 2 | 2 | 2 | 1 |  | 7 | 8 | 87.50 | 3 | Y |
| Aniket Daw | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Anirban Ghosh | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Aniruddha Datta | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Ankhi Debnath | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Anniksha Ghosh | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 3 | Y |
| Anu Sarkar | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Arghadeep Basu | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 3 | Y |
| Aritra Manna | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Arka Das | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Arnab Kumar Das | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Arpan Chakraborty | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Aruniva Nath | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Ashmita Saha | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Asmita Saha | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Atanu Jana | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Avijit Kumar | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Avik Pal | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Ayan Ghosh | 1 | 2 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Babloo Kumar Shaw | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Baishali Roy | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Bratati Chakraborty | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Debayan Chakraborty | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Deep Bhattacharjee | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Dipanjan Datta Roy | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Dipanjan Ray Chaudhuri | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Donal Das | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Faiz Ali | 2 | 2 | 1 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Hemant Kumar | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Himanshu Sharma | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Hitesh Shukla | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Indranil Kundu | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Indranil Paul | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Ishita Biswas | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Jayank Das | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Kalpataru Maity | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Koustav Bag | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Krishna Bindu Kumar | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | N |
| Mainak Chakraborty | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | N |
| Manish Kumar | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Manish Kumar Singh | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Manisha Adak | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Md. Kamaruzzaman | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Md. Rashid Feroze | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Md .Sajid Ali | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Md. Sharique Zafar | 2 | 2 | 1 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Merry Paul | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Mohsina Parveen | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Monalisa Dandapat | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Nandita Mahajan | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Oindrila Choudhury | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 |  | Y |
| Payal Saha | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 2 | N |
| Poulami Das | 1 | 1 | 1 | 1 |  | 5 | 8 | 62.50 | 2 | N |
| Pourabi Roychowdhury | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Prashanta Paul | 2 | 2 | 1 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Pratibha Maurya | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Priyanka Roy | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Puja Kumari Shaw | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 2 | N |
| Raghib Ahsan | 1 | 2 | 1 | 2 |  | 7 | 8 | 87.50 | 2 | N |
| Rahul Das | 1 | 1 | 1 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Rahul Sekhar Das | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Raihan Kabir | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 3 | Y |
| Rajiv Kumar Singh | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Ranit Sen | 2 | 2 | 2 | 1 |  | 7 | 8 | 87.50 | 3 | Y |
| Ravi Kumar | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Renu Kumari | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 2 | N |
| Rituparno Dutta | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Rivu Ghosh | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Ronit Bhattacharyya | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 3 | Y |
| Sagnik Biswas | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Saheli Saha | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Santodeb Dutta | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Saptarshi Das | 2 | 2 | 1 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Saptarshi Podder | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Sarthak Das Roy | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Sayan Ghosh | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 2 | N |
| Sayantan Bhuin | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 2 | N |
| Sayantani Mukherjee | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 3 | Y |
| Shaleen Basak | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Shibam Chatterjee | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 3 | Y |
| Shilpa Chakraborty | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 2 | N |
| Shivam Verma | 2 | 2 | 2 | 1 |  | 7 | 8 | 87.50 | 3 | Y |
| Shramana Bhowmik | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Shreyashi Roy | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Shubhashree Roy | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Shweta Saha | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Siddhartha Majumdar | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 3 | Y |
| Silpa Saha | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Sinthia Madhurima Panja | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 3 | Y |
| Sk. Masud Ali | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 2 | N |
| Somnath Dey | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 2 | N |
| Soumya Guha | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Sreyasi Das | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Srijan Deb | 2 | 1 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Subhankar Maity | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Subhojit Dey | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Suchismita Sengupta | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 2 | N |
| Sukanya Chaudhury | 1 | 1 | 2 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Sulagna Bhattacharya | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Sulagna Chakraborty | 2 | 2 | 2 | 1 |  | 7 | 8 | 87.50 | 3 | Y |
| Suman Sardar | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Sumanta Banerjee | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Supriyo sen | 2 | 1 | 2 | 1 |  | 6 | 8 | 75.00 | 3 | Y |
| Suranjana Saha | 1 | 1 | 1 | 1 |  | 4 | 8 | 50.00 | 2 | N |
| Swagata Das | 1 | 2 | 1 | 1 |  | 5 | 8 | 62.50 | 3 | Y |
| Swaraj Dutta | 2 | 2 | 1 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Swati Samai | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | Y |
| Syed Sadain Abid Hussain | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Talha Nehal | 2 | 1 | 2 | 2 |  | 7 | 8 | 87.50 | 3 | N |
| Tanmoy Kundu | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | Y |
| Tapas Banik | 1 | 2 | 1 | 2 |  | 6 | 8 | 75.00 | 3 | N |
|  |  |  |  |  |  |  |  | AVG | 2.7931 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Max Marks | 2 | 2 | 2 | 2 | 2 |  |  | % | SCORE OR GRADING BASED ON SCALE OF 3 | TARGET >=60% |
| Course outcome | CO4 | | | | | TOTAL OBTAINED | TOTAL MARKS ATTEMPTED |
| Name | T1-Q4 | T1-Q5 | T2-Q4 | T2-Q5 | T3-Q4 |
| Abhimanyu Raj | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | y |
| Abhirup Dey | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Aditya Kamlesh Shah | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Akanksha Singh | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Akash Agarwal | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Alok Kumar | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ananya Sahana | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Aniket Daw | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Anirban Ghosh | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Aniruddha Datta | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Ankhi Debnath | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Anniksha Ghosh | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Anu Sarkar | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Arghadeep Basu | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Aritra Manna | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Arka Das | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Arnab Kumar Das | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Arpan Chakraborty | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Aruniva Nath | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Ashmita Saha | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Asmita Saha | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Atanu Jana | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Avijit Kumar | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Avik Pal | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ayan Ghosh | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Babloo Kumar Shaw | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Baishali Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Bratati Chakraborty | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Debayan Chakraborty | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Deep Bhattacharjee | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Dipanjan Datta Roy | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Dipanjan Ray Chaudhuri | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Donal Das | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Faiz Ali | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Hemant Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Himanshu Sharma | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Hitesh Shukla | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Indranil Kundu | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Indranil Paul | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Ishita Biswas | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Jayank Das | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Kalpataru Maity | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Koustav Bag | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Krishna Bindu Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | N |
| Mainak Chakraborty | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | N |
| Manish Kumar | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Manish Kumar Singh | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Manisha Adak | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Md. Kamaruzzaman | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Md. Rashid Feroze | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Md .Sajid Ali | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Md. Sharique Zafar | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Merry Paul | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Mohsina Parveen | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Monalisa Dandapat | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Nandita Mahajan | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Oindrila Choudhury | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 |  | Y |
| Payal Saha | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 2 | N |
| Poulami Das | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Pourabi Roychowdhury | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Prashanta Paul | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Pratibha Maurya | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Priyanka Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Puja Kumari Shaw | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Raghib Ahsan | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 2 | N |
| Rahul Das | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Rahul Sekhar Das | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Raihan Kabir | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Rajiv Kumar Singh | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ranit Sen | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Ravi Kumar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Renu Kumari | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Rituparno Dutta | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Rivu Ghosh | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Ronit Bhattacharyya | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Sagnik Biswas | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Saheli Saha | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 2 | N |
| Santodeb Dutta | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Saptarshi Das | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Saptarshi Podder | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sarthak Das Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sayan Ghosh | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 2 | N |
| Sayantan Bhuin | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 2 | N |
| Sayantani Mukherjee | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Shaleen Basak | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shibam Chatterjee | 1 | 1 | 1 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Shilpa Chakraborty | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Shivam Verma | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Shramana Bhowmik | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Shreyashi Roy | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shubhashree Roy | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Shweta Saha | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Siddhartha Majumdar | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 3 | Y |
| Silpa Saha | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sinthia Madhurima Panja | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Sk. Masud Ali | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 2 | N |
| Somnath Dey | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 2 | N |
| Soumya Guha | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sreyasi Das | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Srijan Deb | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Subhankar Maity | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Subhojit Dey | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Suchismita Sengupta | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 2 | N |
| Sukanya Chaudhury | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Sulagna Bhattacharya | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Sulagna Chakraborty | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Suman Sardar | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Sumanta Banerjee | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Supriyo sen | 1 | 2 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Suranjana Saha | 2 | 1 | 1 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Swagata Das | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Swaraj Dutta | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Swati Samai | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 2 | N |
| Syed Sadain Abid Hussain | 1 | 1 | 1 | 1 | 2 | 5 | 10 | 50.00 | 3 | Y |
| Talha Nehal | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Tanmoy Kundu | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Tapas Banik | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
|  |  |  |  |  |  |  |  | AVG | 2.8017 |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Max Marks | 2 | 2 | 2 |  |  |  |  | % | SCORE OR GRADING BASED ON SCALE OF 3 | TARGET >=60% |
| Course outcome | CO5 | | | | | TOTAL OBTAINED | TOTAL MARKS ATTEMPTED |
| Name | T3-Q5 | T4-Q4 | T4-Q5 |  |  |
| Abhimanyu Raj | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | y |
| Abhirup Dey | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Aditya Kamlesh Shah | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Akanksha Singh | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Akash Agarwal | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Alok Kumar | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Ananya Sahana | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Aniket Daw | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Anirban Ghosh | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Aniruddha Datta | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Ankhi Debnath | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Anniksha Ghosh | 1 | 2 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Anu Sarkar | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Arghadeep Basu | 1 | 1 | 2 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Aritra Manna | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Arka Das | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Arnab Kumar Das | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Arpan Chakraborty | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Aruniva Nath | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Ashmita Saha | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Asmita Saha | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Atanu Jana | 2 | 1 | 2 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Avijit Kumar | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Avik Pal | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Ayan Ghosh | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Babloo Kumar Shaw | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Baishali Roy | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Bratati Chakraborty | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Debayan Chakraborty | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Deep Bhattacharjee | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Dipanjan Datta Roy | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Dipanjan Ray Chaudhuri | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Donal Das | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Faiz Ali | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Hemant Kumar | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Himanshu Sharma | 1 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Hitesh Shukla | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Indranil Kundu | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Indranil Paul | 1 | 1 | 1 |  |  | 5 | 6 | 83.33 | 2 | N |
| Ishita Biswas | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Jayank Das | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Kalpataru Maity | 1 | 2 | 1 |  |  | 6 | 6 | #### | 3 | Y |
| Koustav Bag | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Krishna Bindu Kumar | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | N |
| Mainak Chakraborty | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | N |
| Manish Kumar | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Manish Kumar Singh | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Manisha Adak | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Md. Kamaruzzaman | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Md. Rashid Feroze | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Md .Sajid Ali | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Md. Sharique Zafar | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Merry Paul | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Mohsina Parveen | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Monalisa Dandapat | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Nandita Mahajan | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Oindrila Choudhury | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Payal Saha | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Poulami Das | 1 | 1 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Pourabi Roychowdhury | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Prashanta Paul | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Pratibha Maurya | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Priyanka Roy | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Puja Kumari Shaw | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Raghib Ahsan | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Rahul Das | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Rahul Sekhar Das | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Raihan Kabir | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Rajiv Kumar Singh | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Ranit Sen | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Ravi Kumar | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Renu Kumari | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 2 | N |
| Rituparno Dutta | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Rivu Ghosh | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Ronit Bhattacharyya | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Sagnik Biswas | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Saheli Saha | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Santodeb Dutta | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Saptarshi Das | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Saptarshi Podder | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Sarthak Das Roy | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Sayan Ghosh | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 2 | N |
| Sayantan Bhuin | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Sayantani Mukherjee | 1 | 1 | 2 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Shaleen Basak | 2 | 1 | 2 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Shibam Chatterjee | 1 | 1 | 2 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Shilpa Chakraborty | 1 | 1 | 2 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Shivam Verma | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Shramana Bhowmik | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Shreyashi Roy | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Shubhashree Roy | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Shweta Saha | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Siddhartha Majumdar | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Silpa Saha | 2 | 1 | 2 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Sinthia Madhurima Panja | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Sk. Masud Ali | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Somnath Dey | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 2 | N |
| Soumya Guha | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Sreyasi Das | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Srijan Deb | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Subhankar Maity | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Subhojit Dey | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Suchismita Sengupta | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Sukanya Chaudhury | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Sulagna Bhattacharya | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Sulagna Chakraborty | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Suman Sardar | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Sumanta Banerjee | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Supriyo sen | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Suranjana Saha | 2 | 1 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Swagata Das | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Swaraj Dutta | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Swati Samai | 1 | 1 | 1 |  |  | 3 | 6 | 50.00 | 2 | N |
| Syed Sadain Abid Hussain | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Talha Nehal | 1 | 2 | 1 |  |  | 4 | 6 | 66.67 | 3 | Y |
| Tanmoy Kundu | 2 | 2 | 1 |  |  | 5 | 6 | 83.33 | 3 | Y |
| Tapas Banik | 2 | 1 | 2 |  |  | 5 | 6 | 83.33 | 3 | Y |
|  |  |  |  |  |  |  |  | AVG | 2.8034 |  |
|  |  |  |  |  |  |  |  |  |  |  |

Accordingly prepare the above table for CO3, CO4 and CO5. Here average grading for CO3=2.5, CO4=2.7 and CO5=2.8

**CO attainment for a course EC191:**

Target level 1: 60% students must score 60% and above

Target level 2: 70% students must score 60% and above

Target level 3: 80% students must score 60% and above

Total number of student for the batch 2012-2016 in first year=120

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course outcome | Avg. grading on scale of 3 | Distribution % | | |
| 3 | 2 | 1 |
| CO1 | 2.79 | 98/120=81.7% | 22/120=18.3% | 0/120=0% |
| CO2 | 2.78 | 98/120=81.7% | 22/120=18.3% | 0/120=0% |
| CO3 | 2.79 | 97/120=80.8% | 23/120=19.2% | 0/120=0% |
| CO4 | 2.8 | 100/120=83.3% | 20/120=16.7% | 0/120=0% |
| CO5 | 2.8 | 101/120=84.2% | 19/120=15.8% | 0/120=0% |

|  |  |  |
| --- | --- | --- |
| CO and PO Scale | 3 | Strongly Related |
| 2 | Moderately Related |
| 1 | Low |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CO** | **Statement** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| EC 291.1 | Analyze the I-V characteristics of Field Effect Transistors. | 3 | 3 | - | - | - | - | 2 | 2 | 1 | - | - | 2 |
| EC 291.2 | Evaluate the input-offset voltage, input bias current and Slew rate, Common-mode Rejection ratio, Bandwidth and Off-set null of OPAMPs. | 3 | 3 | 3 | 3 | - | - | 2 | 2 | 1 | - | - | 2 |
| EC291.3 | Understand Inverting and Non-inverting amplifiers, Adders, Integrators and Differentiators circuits | 3 | 3 | - | - | - | - | 2 | 2 | 1 | - | - | 2 |
| EC 291.4 | Knoledge of Boolean functions using Logic Gates. | 3 | 3 | - | - | - | - | 2 | 2 | 1 | - | - | 2 |
| EC 291.5 | Analyze the characteristic curves for CB, CE and CC mode transistors | 3 | 3 | 3 | 3 | - | - | 2 | 2 | 1 | - | - | 2 |
| EC 291 | | 3 | 3 | 3 | 3 | - | - | 2 | 2 | 1 | - | - | 2 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| EC 291 | 3 | 3 | 3 | 3 | - | - | 2 | 2 | 1 | - | - | 2 |

Result of attainment of POs (CIE)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course | COs | CO Attainment | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| EC291 | CO1 | 75.8% | 75.8% | 75.8% | - | - | - | - | 50.5% | 50.5% | 25.2% | - | - | 50.5 |
| CO2 | 86.6% | 86.6% | 86.6% | 86.6% | 86.6% | - | - | 57.7% | 57.7% | 28.8% | - | - | 57.7% |
| CO3 | 66.7% | 66.7% | 66.7% | - | - | - | - | 44.4% | 44.4% | 22.2% |  |  | 44.4% |
| CO4 | 70.8% | 70.8% | 70.8% | - | - | - | - | 47.2% | 47.2% | 23.6% | - | - | 47.2% |
| CO5 | 75.8% | 75.8% | 75.8% | 75.8% | 75.8% | - | - | 50.5% | 50.5 | 25.2 | - | - | 50.5 |
| AVG of EC291 |  |  | 75.1% | 75.1% | 81.2 | 81.2 | - | - | 50.1% | 50.1% | 25% | - | - | 50.1% |

**Result of attainment of POs (CIE)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course | COs | CO Attainment | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| EC 191 | CO1 | 93.05% | 93.05% | 93.05% | 93.05%- | 93.05%-- | - | - | 62.03% | 62.03% | 31.01% | - | - | 62.05% |
| CO2 | 96.52% | 96.52% | 96.52% | 96.52% | 96.52% | - | - | 64.34% | 64.34% | 32.17% | - | - | 64.34% |
| CO3 | 90.97% | 90.97% | 90.97% | - | - | - | - | 60.64% | 60.64% | 30.32% |  |  | 60.64% |
| CO4 | 95.83% | 95.83% | 95.83% | - | - | - | - | 63.88% | 63.88% | 31.94% | - | - | 63.88% |
| AVG of EC 291 |  | 94.09% | 94.09% | 94.09% | 94.78% | 94.78% | - | - | 62.72% | 62.72% | 31.36% | - | - | 50.1% |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | |  |  | |  | |  | |  |  |  |  |  |  |  | |  |  |  |
| **PO attainment through (SEE)** | | | | | | | |  |  |  |  |  |  |  | |  |  |  |
| SL No | Course | | % of students achieved >=60% | | PO1 | | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | | PO9 | PO10 | PO11 | PO12 |
| 1 | EC291 | | 100% | | 100% | | 100% | 100% | 100% |  |  | 66.66% | 66.66% | | 33.33% |  |  | 66.66% |

**Mapping with CO with PSO**

|  |  |  |  |
| --- | --- | --- | --- |
| **CO** | **PSO1** | **PSO2** | **PSO3** |
| CO1 | 3 | 2 | 1 |
| CO2 | 3 | 2 | 1 |
| CO3 | 3 | 2 | 1 |
| CO4 | 3 | 2 | 1 |
| CO5 | 3 | 2 | 1 |
| AVG OF EC 191 | 3 | 2 | 1 |

**Result of attainment of PSOs (CIE) (NB: The following table to be generated considering mapping of COs with PSOs)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Course** | **COs** | **CO Attainment** | **PSO1** | **PSO2** | **PSO3** |
| EC 291 | CO1 | 100% | 100% | 66.66%% | 33.33% |
| CO2 | 100% | 100% | 66.66% | 33.33% |
| CO3 | 100% | 100% | 66.66%% | 33.33% |
| CO4 | 100% | 100% | 66.66%% | 33.33% |
| CO5 | 100% | 100% | 66.66% | 33.33% |
| AVG of EC 291 |  | 100% | 100% | 66.66% | 33.33% |

**Result of attainment of PSOs (SEE: Semester End Examination) (NB: The following table to be generated considering mapping of COs with PSOs)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SL No.** | **Course** | **% of students achieved >=60%** | **PSO1** | **PSO2** | **PSO3** |
| 1 | EC291 | 100% | 100% | 66.66% | 33.33% |