**DIGITAL SIGNAL PROCESSING LABORATORY:**

**EC692**

**CONTACT: 3P**

**CREDIT:2**

**Syllabus**

**Course outcome:**

|  |  |
| --- | --- |
| CO | Statement |
| C01 | Ability to analyze sampled Sinusoidal signal, various sequences and different arithmetic operations, convolution properties of convolution, circular convolution, differentiation between linear and circular convolutions, sectioned convolution. |
| C02 | Understand and analyzing z-transform of various sequences - verification of the properties. |
| C03 | Acquired knowledge of Twiddle factors, DFT, FFT, and IDFT. |
| C04 | Ability to design of Butterworth Filter design with different set of design parameters, using  Rectangular, Hamming, Hamming, Bartlett windows and comparisons of these designs.  . |
| CO5 | Acquired knowledge of Hardware Laboratory using either 5416 or 6713 Processor: |

Mapping with CO with PSO

|  |  |  |  |
| --- | --- | --- | --- |
|  | PSO1 | PSO2 | PSO3 |
| CO1 | 3 | 3 | 2 |
| CO2 | 3 | 3 | 2 |
| CO3 | 3 | 3 | 2 |
| CO4 | 3 | 3 | 2 |
| CO5 | 3 | 3 | 2 |
| AVG OF EC691 | 3 | 3 | 2 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cos | Test-1 (T1)  (10) | Test-2 (T2) (10) | Test-3 (T3) (10) | Test-4 (T4) (10) |
| CO1 | Q1,Q2 | Q1 | Q1 | - |
| CO2 | Q3 | Q2,Q3 | Q2 | Q1 |
| CO3 | - | - | Q3 | 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 | 8 |  | % | SCORE OR GRADIN | TARGET >=60% |
| Course outcome | CO1 | | | |  | TOTAL MARKS ATTEMPTED |
| Name | T1-Q1 | T1-Q2 | T2-Q3 | T3-Q1 |  |  |  |
| Abhimanyu Raj | 2 | 1 | 1 | 1 | 5 | 8 | 62.50 | 3 | Y |
| Abhirup Dey | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Aditya Kamlesh Shah | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Akanksha Singh | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Akash Agarwal | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Alok Kumar | 1 |  | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Ananya Sahana | 2 |  | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Aniket Daw | 1 | 1 | 1 | 1 | 4 | 8 | 50.00 | 2 | N |
| Anirban Ghosh | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Aniruddha Datta | 2 | 1 | 1 | 1 | 5 | 8 | 62.50 | 3 | Y |
| Ankhi Debnath | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Anniksha Ghosh | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Anu Sarkar | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Arghadeep Basu | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Aritra Manna | 1 | 1 | 1 | 1 | 4 | 8 | 50.00 | 2 | N |
| Arka Das | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Arnab Kumar Das | 1 |  | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Arpan Chakraborty | 2 |  | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Aruniva Nath | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Ashmita Saha | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Asmita Saha | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Atanu Jana | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Avijit Kumar | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Avik Pal | 1 | 2 | 1 | 1 | 5 | 8 | 62.50 | 3 | Y |
| Ayan Ghosh | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Babloo Kumar Shaw | 1 | 1 | 2 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Baishali Roy | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Bratati Chakraborty | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Debayan Chakraborty | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Deep Bhattacharjee | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Dipanjan Datta Roy | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Dipanjan Ray Chaudhuri | 1 | 2 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Donal Das | 1 | 1 | 2 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Faiz Ali | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Hemant Kumar | 1 | 1 | 2 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Himanshu Sharma | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Hitesh Shukla | 1 | 2 | 2 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Indranil Kundu | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Indranil Paul | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Ishita Biswas | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Jayank Das | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Kalpataru Maity | 1 | 1 | 2 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Koustav Bag | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Krishna Bindu Kumar | 1 | 2 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Mainak Chakraborty | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Manish Kumar | 2 | 2 | 2 | 2 | 8 | 8 | 100.00 | 3 | Y |
| Manish Kumar Singh | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Manisha Adak | 2 | 2 | 2 | 2 | 8 | 8 | 100.00 | 3 | Y |
| Md. Kamaruzzaman | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Md. Rashid Feroze | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Md .Sajid Ali | 1 | 2 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Md. Sharique Zafar | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Merry Paul | 1 | 2 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Mohsina Parveen | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Monalisa Dandapat | 2 | 2 | 2 | 2 | 8 | 8 | 100.00 | 3 | Y |
| Nandita Mahajan | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Oindrila Choudhury | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Payal Saha | 1 | 1 | 1 | 2 | 5 | 8 | 62.50 | 3 | Y |
| Poulami Das | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Pourabi Roychowdhury | 1 | 2 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Prashanta Paul | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Pratibha Maurya | 1 | 2 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Priyanka Roy | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Puja Kumari Shaw | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Raghib Ahsan | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Rahul Das | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Rahul Sekhar Das | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Raihan Kabir | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Rajiv Kumar Singh | 1 | 2 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Ranit Sen | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Ravi Kumar | 1 | 2 | 1 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Renu Kumari | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Rituparno Dutta | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Rivu Ghosh | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Ronit Bhattacharyya | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Sagnik Biswas | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Saheli Saha | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Santodeb Dutta | 1 | 2 | 1 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Saptarshi Das | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Saptarshi Podder | 1 | 2 | 1 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Sarthak Das Roy | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Sayan Ghosh | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Sayantan Bhuin | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Sayantani Mukherjee | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Shaleen Basak | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Shibam Chatterjee | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Shilpa Chakraborty | 1 | 2 | 1 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Shivam Verma | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Shramana Bhowmik | 1 | 1 | 2 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Shreyashi Roy | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Shubhashree Roy | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Shweta Saha | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Siddhartha Majumdar | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Silpa Saha | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Sinthia Madhurima Panja | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Sk. Masud Ali | 1 | 1 | 2 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Somnath Dey | 2 | 1 | 1 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Soumya Guha | 1 | 1 | 2 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Sreyasi Das | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Srijan Deb | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Subhankar Maity | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Subhojit Dey | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Suchismita Sengupta | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Sukanya Chaudhury | 2 | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Sulagna Bhattacharya | 1 | 1 | 2 | 2 | 6 | 8 | 75.00 | 3 | Y |
| Sulagna Chakraborty | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Suman Sardar | 1 | 2 | 2 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Sumanta Banerjee | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Supriyo sen | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Suranjana Saha | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Swagata Das | 1 | 1 | 1 | 1 | 4 | 8 | 50.00 | 2 | N |
| Swaraj Dutta | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Swati Samai | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Syed Sadain Abid Hussain | 1 | 2 | 2 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Talha Nehal | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Tanmoy Kundu | 1 | 2 | 2 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Tapas Banik | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Urvashi Majithia | 2 | 1 | 2 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Uttla Aiswarya | 2 | 1 | 2 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Vijay Agarwal | 2 | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Vishal Kumar Mishra | 2 | 2 | 2 | 1 | 7 | 8 | 87.50 | 3 | Y |
| Vivek Gupta | 2 | 2 | 1 | 2 | 7 | 8 | 87.5 | 3 | Y |
| Vivek Kumar | 1 | 2 | 2 | 1 | 6 | 8 | 75 | 3 | Y |
| ABHIK MUKHERJEE(L) | 2 | 1 | 2 | 2 | 7 | 8 | 87.5 | 3 | Y |
| ANINDITA CHANDRA(L) | 1 | 2 | 2 | 2 | 7 | 8 | 87.5 | 3 | Y |
| ARNAB CHAKRABORTY(L) | 2 | 1 | 2 | 2 | 7 | 8 | 87.5 | 3 | Y |
| BARNALI BISWAS(L) | 2 | 2 | 1 | 2 | 7 | 8 | 87.5 | 3 | Y |
| DEBOLINA DEB(L) | 2 | 2 | 2 | 1 | 7 | 8 | 87.5 | 3 | Y |
| DIPTANU MAJUMDER(L) | 2 | 2 | 1 | 2 | 7 | 8 | 87.5 | 3 | Y |
| KUMARI ARCHANA(L) | 2 | 2 | 2 | 1 | 7 | 8 | 87.5 | 3 | Y |
| MD RAGHIB HUSSAIN(L) | 2 | 1 | 2 | 2 | 7 | 8 | 87.5 | 3 | Y |
| PRIYANKA GHOSH(L) | 1 | 2 | 2 | 2 | 7 | 8 | 87.5 | 3 | N |
| PUJA DUTTA(L) | 2 | 1 | 2 | 2 | 7 | 8 | 87.5 | 3 | Y |
| ROHIT NATH(L) | 1 | 2 | 1 | 2 | 6 | 8 | 75 | 3 | Y |
| SALYALI DAS(L) | 2 | 2 | 2 | 1 | 7 | 8 | 87.5 | 3 | Y |
| SASWATA BISWAS(L) | 2 | 2 | 1 | 2 | 7 | 8 | 87.5 | 3 | Y |
| SOUVIK GHOSAL(L) | 2 | 2 | 2 | 1 | 7 | 8 | 87.5 | 3 | Y |
| SUDIPTA KUMAR MUKHERJEE(L) | 2 | 1 | 2 | 2 | 7 | 8 | 87.5 | 3 | Y |
| SUDIPTA SARKAR(L) | 2 | 2 | 2 | 2 | 8 | 8 | 100 | 3 | Y |
| TAPESH CHOWDHURY(L) | 2 | 1 | 2 | 2 | 7 | 8 | 87.5 | 3 | Y |
| UPAYAN DEY HAZRA(L) | 1 | 2 | 1 | 2 | 6 | 8 | 75 | 3 | Y |
|  |  |  |  |  |  |  | AVG | 2.97 |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Max Marks | 2 | 2 | 2 | 2 | 2 | 10 |  | % | SCORE OR GRADING BASED ON SCALE OF 3 | TARGET >=60 |
| Course outcome | CO2 | | | | |  | TOTAL MARKS ATTEMPTED |
| Name | T1-Q3 | T2-Q2 | T2-Q3 | T3-Q2 | T4-Q1 | TOTAL OBTAIN |  |
| Abhimanyu Raj | 2 | 1 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Abhirup Dey | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Aditya Kamlesh Shah | 2 | 2 | 1 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Akanksha Singh | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Akash Agarwal | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Alok Kumar | 1 |  | 2 | 2 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Ananya Sahana | 2 |  | 2 | 1 | 1 | 6 | 8 | 75.00 | 3 | Y |
| Aniket Daw | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Anirban Ghosh | 2 | 2 | 1 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Aniruddha Datta | 2 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Ankhi Debnath | 2 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Anniksha Ghosh | 2 | 2 | 1 | 1 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Anu Sarkar | 2 | 2 | 2 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Arghadeep Basu | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Aritra Manna | 1 | 1 | 1 | 1 | 2 | 4 | 10 | 40.00 | 2 | N |
| Arka Das | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Arnab Kumar Das | 1 |  | 1 | 1 | 1 | 4 | 8 | 50.00 | 2 | N |
| Arpan Chakraborty | 2 |  | 2 | 1 | 2 | 7 | 8 | 87.50 | 3 | Y |
| Aruniva Nath | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Ashmita Saha | 2 | 2 | 2 | 1 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Asmita Saha | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Atanu Jana | 2 | 2 | 1 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Avijit Kumar | 2 | 2 | 2 | 1 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Avik Pal | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ayan Ghosh | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Babloo Kumar Shaw | 1 | 1 | 2 | 2 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Baishali Roy | 2 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Bratati Chakraborty | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Debayan Chakraborty | 2 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Deep Bhattacharjee | 2 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Dipanjan Datta Roy | 2 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Dipanjan Ray Chaudhuri | 1 | 2 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Donal Das | 1 | 1 | 2 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Faiz Ali | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Hemant Kumar | 1 | 1 | 1 | 2 | 1 | 5 | 10 | 50.00 | 2 | N |
| Himanshu Sharma | 2 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Hitesh Shukla | 1 | 2 | 2 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Indranil Kundu | 2 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Indranil Paul | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Ishita Biswas | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Jayank Das | 2 | 2 | 1 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Kalpataru Maity | 1 | 1 | 2 | 2 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Koustav Bag | 2 | 2 | 1 | 1 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Krishna Bindu Kumar | 1 | 2 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Mainak Chakraborty | 2 | 2 | 1 | 1 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Manish Kumar | 2 | 2 | 2 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Manish Kumar Singh | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Manisha Adak | 2 | 2 | 2 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Md. Kamaruzzaman | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Md. Rashid Feroze | 2 | 2 | 1 | 1 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Md .Sajid Ali | 1 | 2 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Md. Sharique Zafar | 2 | 2 | 1 | 1 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Merry Paul | 1 | 2 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Mohsina Parveen | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Monalisa Dandapat | 2 | 2 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Nandita Mahajan | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Oindrila Choudhury | 2 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Payal Saha | 1 | 1 | 1 | 2 | 1 | 5 | 10 | 50.00 | 2 | N |
| Poulami Das | 2 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Pourabi Roychowdhury | 1 | 2 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Prashanta Paul | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Pratibha Maurya | 1 | 2 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Priyanka Roy | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Puja Kumari Shaw | 2 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Raghib Ahsan | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Rahul Das | 2 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Rahul Sekhar Das | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Raihan Kabir | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Rajiv Kumar Singh | 1 | 2 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Ranit Sen | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Ravi Kumar | 1 | 2 | 1 | 2 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Renu Kumari | 2 | 2 | 2 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Rituparno Dutta | 2 | 2 | 1 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Rivu Ghosh | 2 | 2 | 2 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Ronit Bhattacharyya | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Sagnik Biswas | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Saheli Saha | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Santodeb Dutta | 1 | 2 | 1 | 2 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Saptarshi Das | 2 | 2 | 2 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Saptarshi Podder | 1 | 2 | 1 | 2 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Sarthak Das Roy | 2 | 2 | 2 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Sayan Ghosh | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Sayantan Bhuin | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Sayantani Mukherjee | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Shaleen Basak | 2 | 2 | 1 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Shibam Chatterjee | 2 | 2 | 2 | 1 |  | 7 | 10 | 70.00 | 3 | Y |
| Shilpa Chakraborty | 1 | 2 | 1 | 2 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Shivam Verma | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Shramana Bhowmik | 1 | 1 | 2 | 2 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Shreyashi Roy | 2 | 2 | 2 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Shubhashree Roy | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Shweta Saha | 2 | 2 | 1 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Siddhartha Majumdar | 2 | 2 | 2 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Silpa Saha | 2 | 2 | 1 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Sinthia Madhurima Panja | 2 | 2 | 2 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Sk. Masud Ali | 1 | 1 | 2 | 2 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Somnath Dey | 2 | 1 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Soumya Guha | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Sreyasi Das | 2 | 2 | 1 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Srijan Deb | 2 | 2 | 2 | 1 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Subhankar Maity | 2 | 2 | 1 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Subhojit Dey | 2 | 2 | 2 | 1 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Suchismita Sengupta | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Sukanya Chaudhury | 2 | 2 | 1 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Sulagna Bhattacharya | 1 | 1 | 2 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sulagna Chakraborty | 2 | 2 | 1 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Suman Sardar | 1 | 2 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sumanta Banerjee | 2 | 2 | 1 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Supriyo sen | 2 | 2 | 2 | 1 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Suranjana Saha | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Swagata Das | 1 | 1 | 1 | 1 | 1 | 4 | 10 | 40.00 | 2 | N |
| Swaraj Dutta | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Swati Samai | 2 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Syed Sadain Abid Hussain | 1 | 2 | 2 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Talha Nehal | 2 | 2 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Tanmoy Kundu | 1 | 2 | 2 | 1 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Tapas Banik | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Urvashi Majithia | 2 | 1 | 2 | 1 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Uttla Aiswarya | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Vijay Agarwal | 2 | 2 | 1 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Vishal Kumar Mishra | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Vivek Gupta | 2 | 2 | 1 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
| Vivek Kumar | 1 | 2 | 2 | 1 | 1 | 6 | 10 | 60 | 3 | Y |
| ABHIK MUKHERJEE(L) | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
| ANINDITA CHANDRA(L) | 1 | 2 | 2 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
| ARNAB CHAKRABORTY(L) | 2 | 1 | 2 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
| BARNALI BISWAS(L) | 1 | 1 | 1 | 1 | 1 | 4 | 10 | 40 | 2 | N |
| DEBOLINA DEB(L) | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70 | 3 | Y |
| DIPTANU MAJUMDER(L) | 2 | 2 | 1 | 2 | 2 | 7 | 10 | 70 | 3 | Y |
| KUMARI ARCHANA(L) | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70 | 3 | Y |
| MD RAGHIB HUSSAIN(L) | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70 | 3 | Y |
| PRIYANKA GHOSH(L) | 1 | 2 | 2 | 2 | 2 | 7 | 10 | 70 | 3 | N |
| PUJA DUTTA(L) | 2 | 1 | 2 | 2 | 2 | 7 | 10 | 70 | 3 | Y |
| ROHIT NATH(L) | 1 | 2 | 1 | 2 | 1 | 6 | 10 | 60 | 3 | Y |
| SALYALI DAS(L) | 2 | 2 | 2 | 1 | 1 | 7 | 10 | 70 | 3 | Y |
| SASWATA BISWAS(L) | 2 | 2 | 1 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
| SOUVIK GHOSAL(L) | 2 | 2 | 2 | 1 | 1 | 8 | 10 | 80 | 3 | Y |
| SUDIPTA KUMAR MUKHERJEE(L) | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90 | 3 | Y |
| SUDIPTA SARKAR(L) | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90 | 3 | Y |
| TAPESH CHOWDHURY(L) | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50 | 2 | Y |
| UPAYAN DEY HAZRA(L) | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
|  |  |  |  |  |  |  |  | AVG | 2.92 |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Max Marks | 2 | 2 | 2 | 6 |  | % | SCORE OR GRADING BASED ON SCALE OF 3 | TARGET >=60% |
| Course outcome | CO3 | | | TOTAL OBTAINED | TOTAL MARKS ATTEMPTED |
| Name | T3-Q3 | T4-Q2 | T4-Q3 |
| Abhimanyu Raj | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Abhirup Dey | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Aditya Kamlesh Shah | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Akanksha Singh | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Akash Agarwal | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Alok Kumar | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Ananya Sahana | 2 | 1 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Aniket Daw | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Anirban Ghosh | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Aniruddha Datta | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Ankhi Debnath | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Anniksha Ghosh | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Anu Sarkar | 2 | 1 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Arghadeep Basu | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Aritra Manna | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Arka Das | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Arnab Kumar Das | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Arpan Chakraborty | 2 | 1 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Aruniva Nath | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Ashmita Saha | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Asmita Saha | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Atanu Jana | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Avijit Kumar | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Avik Pal | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Ayan Ghosh | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Babloo Kumar Shaw | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Baishali Roy | 1 | 2 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Bratati Chakraborty | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Debayan Chakraborty | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Deep Bhattacharjee | 1 | 2 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Dipanjan Datta Roy | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Dipanjan Ray Chaudhuri | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Donal Das | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Faiz Ali | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Hemant Kumar | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Himanshu Sharma | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Hitesh Shukla | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Indranil Kundu | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Indranil Paul | 2 | 1 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Ishita Biswas | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Jayank Das | 1 | 2 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Kalpataru Maity | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Koustav Bag | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Krishna Bindu Kumar | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Mainak Chakraborty | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Manish Kumar | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Manish Kumar Singh | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Manisha Adak | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Md. Kamaruzzaman | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Md. Rashid Feroze | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Md .Sajid Ali | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Md. Sharique Zafar | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Merry Paul | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Mohsina Parveen | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Monalisa Dandapat | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Nandita Mahajan | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Oindrila Choudhury | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Payal Saha | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Poulami Das | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Pourabi Roychowdhury | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Prashanta Paul | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Pratibha Maurya | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Priyanka Roy | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Puja Kumari Shaw | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Raghib Ahsan | 2 | 1 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Rahul Das | 1 | 2 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Rahul Sekhar Das | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Raihan Kabir | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Rajiv Kumar Singh | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Ranit Sen | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Ravi Kumar | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Renu Kumari | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Rituparno Dutta | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Rivu Ghosh | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Ronit Bhattacharyya | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Sagnik Biswas | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Saheli Saha | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Santodeb Dutta | 1 | 2 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Saptarshi Das | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Saptarshi Podder | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Sarthak Das Roy | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Sayan Ghosh | 1 | 1 | 1 | 3 | 6 | 50.00 | 2 | N |
| Sayantan Bhuin | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Sayantani Mukherjee | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Shaleen Basak | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Shibam Chatterjee | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Shilpa Chakraborty | 1 | 2 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Shivam Verma | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Shramana Bhowmik | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Shreyashi Roy | 2 | 1 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Shubhashree Roy | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Shweta Saha | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Siddhartha Majumdar | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Silpa Saha | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Sinthia Madhurima Panja | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Sk. Masud Ali | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Somnath Dey | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Soumya Guha | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Sreyasi Das | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Srijan Deb | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Subhankar Maity | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Subhojit Dey | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Suchismita Sengupta | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Sukanya Chaudhury | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Sulagna Bhattacharya | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Sulagna Chakraborty | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Suman Sardar | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Sumanta Banerjee | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Supriyo sen | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Suranjana Saha | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Swagata Das | 1 | 1 | 2 | 4 | 6 | 66.67 | 3 | Y |
| Swaraj Dutta | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Swati Samai | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Syed Sadain Abid Hussain | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Talha Nehal | 1 | 2 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Tanmoy Kundu | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Tapas Banik | 2 | 2 | 2 | 6 | 6 | 100.00 | 3 | Y |
| Urvashi Majithia | 2 | 1 | 2 | 5 | 6 | 83.33 | 3 | Y |
| Uttla Aiswarya | 2 | 2 | 1 | 5 | 6 | 83.33 | 3 | Y |
| Vijay Agarwal | 1 | 2 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Vishal Kumar Mishra | 2 | 1 | 1 | 4 | 6 | 66.67 | 3 | Y |
| Vivek Gupta | 1 | 2 | 1 | 4 | 6 | 66.6666667 | 3 | Y |
| Vivek Kumar | 2 | 1 | 1 | 4 | 6 | 66.6666667 | 3 | Y |
| ABHIK MUKHERJEE(L) | 2 | 2 | 1 | 5 | 6 | 83.3333333 | 3 | Y |
| ANINDITA CHANDRA(L) | 2 | 2 | 1 | 5 | 6 | 83.3333333 | 3 | Y |
| ARNAB CHAKRABORTY(L) | 2 | 2 | 2 | 6 | 6 | 100 | 3 | Y |
| BARNALI BISWAS(L) | 1 | 1 |  | 2 | 6 | 33.3333333 | 2 | N |
| DEBOLINA DEB(L) | 2 | 1 |  | 3 | 6 | 50 | 2 | N |
| DIPTANU MAJUMDER(L) | 1 | 2 | 2 | 5 | 6 | 83.3333333 | 3 | Y |
| KUMARI ARCHANA(L) | 1 | 1 | 2 | 4 | 6 | 66.6666667 | 3 | Y |
| MD RAGHIB HUSSAIN(L) | 2 | 2 | 2 | 6 | 6 | 100 | 3 | Y |
| PRIYANKA GHOSH(L) | 2 | 2 | 2 | 6 | 6 | 100 | 3 | Y |
| PUJA DUTTA(L) | 2 | 2 | 2 | 6 | 6 | 100 | 3 | Y |
| ROHIT NATH(L) | 1 | 2 | 2 | 5 | 6 | 83.3333333 | 3 | Y |
| SALYALI DAS(L) | 2 | 1 | 2 | 5 | 6 | 83.3333333 | 3 | Y |
| SASWATA BISWAS(L) | 1 | 1 | 1 | 3 | 6 | 50 | 2 | Y |
| SOUVIK GHOSAL(L) | 1 | 1 | 1 | 3 | 6 | 50 | 2 | Y |
| SUDIPTA KUMAR MUKHERJEE(L) | 1 | 1 | 1 | 3 | 6 | 50 | 2 | Y |
| SUDIPTA SARKAR(L) | 2 | 2 | 1 | 5 | 6 | 83.3333333 | 3 | Y |
| TAPESH CHOWDHURY(L) | 1 | 1 | 1 | 3 | 6 | 50 | 2 | Y |
| UPAYAN DEY HAZRA(L) | 1 | 1 | 1 | 3 | 6 | 50 | 2 | Y |
|  |  |  |  |  |  | AVG | 2.88 |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Max Marks | 2 | 2 | 2 | 2 | 2 | 10 |  | % | 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 | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Abhirup Dey | 2 | 2 | 2 | 1 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Aditya Kamlesh Shah | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Akanksha Singh | 2 | 2 | 2 | 1 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Akash Agarwal | 2 | 2 | 2 | 1 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Alok Kumar | 2 | 2 | 1 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Ananya Sahana | 2 | 1 | 1 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Aniket Daw | 1 | 1 | 1 | 2 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Anirban Ghosh | 1 | 1 | 1 | 2 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Aniruddha Datta | 1 | 1 | 1 | 2 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ankhi Debnath | 1 | 1 | 1 | 2 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Anniksha Ghosh | 1 | 1 | 1 | 2 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Anu Sarkar | 2 | 1 | 1 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Arghadeep Basu | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Aritra Manna | 1 | 1 | 1 | 1 | 2 | 6 | 10 | 60.00 | 3 | Y |
| Arka Das | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Arnab Kumar Das | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Arpan Chakraborty | 2 | 1 | 1 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Aruniva Nath | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Ashmita Saha | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Asmita Saha | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Atanu Jana | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Avijit Kumar | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Avik Pal | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Ayan Ghosh | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Babloo Kumar Shaw | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Baishali Roy | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Bratati Chakraborty | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Debayan Chakraborty | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50.00 | 2 | N |
| Deep Bhattacharjee | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Dipanjan Datta Roy | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Dipanjan Ray Chaudhuri | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Donal Das | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Faiz Ali | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Hemant Kumar | 1 | 2 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Himanshu Sharma | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Hitesh Shukla | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Indranil Kundu | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Indranil Paul | 2 | 1 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Ishita Biswas | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Jayank Das | 1 | 2 | 1 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Kalpataru Maity | 2 | 2 | 1 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Koustav Bag | 1 | 1 | 2 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Krishna Bindu Kumar | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Mainak Chakraborty | 1 | 1 | 2 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Manish Kumar | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Manish Kumar Singh | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Manisha Adak | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Md. Kamaruzzaman | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Md. Rashid Feroze | 1 | 1 | 2 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Md .Sajid Ali | 2 | 2 | 1 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Md. Sharique Zafar | 1 | 1 | 2 | 2 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Merry Paul | 2 | 2 | 1 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Mohsina Parveen | 2 | 2 | 1 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Monalisa Dandapat | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Nandita Mahajan | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Oindrila Choudhury | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Payal Saha | 1 | 2 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Poulami Das | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Pourabi Roychowdhury | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Prashanta Paul | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Pratibha Maurya | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Priyanka Roy | 2 | 2 | 1 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Puja Kumari Shaw | 1 | 2 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Raghib Ahsan | 2 | 1 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Rahul Das | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Rahul Sekhar Das | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Raihan Kabir | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Rajiv Kumar Singh | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Ranit Sen | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Ravi Kumar | 1 | 2 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Renu Kumari | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Rituparno Dutta | 1 | 2 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Rivu Ghosh | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Ronit Bhattacharyya | 2 | 2 | 1 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Sagnik Biswas | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Saheli Saha | 2 | 2 | 1 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Santodeb Dutta | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Saptarshi Das | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Saptarshi Podder | 1 | 2 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Sarthak Das Roy | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Sayan Ghosh | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Sayantan Bhuin | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Sayantani Mukherjee | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Shaleen Basak | 1 | 2 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Shibam Chatterjee | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Shilpa Chakraborty | 1 | 2 | 1 | 1 | 1 | 6 | 10 | 60.00 | 3 | Y |
| Shivam Verma | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Shramana Bhowmik | 2 | 2 | 1 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Shreyashi Roy | 2 | 1 | 1 | 1 | 2 | 7 | 10 | 70.00 | 3 | Y |
| Shubhashree Roy | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Shweta Saha | 1 | 2 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Siddhartha Majumdar | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Silpa Saha | 1 | 2 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Sinthia Madhurima Panja | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Sk. Masud Ali | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Somnath Dey | 1 | 2 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Soumya Guha | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Sreyasi Das | 1 | 2 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Srijan Deb | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Subhankar Maity | 1 | 2 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Subhojit Dey | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Suchismita Sengupta | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Sukanya Chaudhury | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Sulagna Bhattacharya | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100.00 | 3 | Y |
| Sulagna Chakraborty | 1 | 2 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Suman Sardar | 2 | 1 | 2 | 2 | 2 | 9 | 10 | 90.00 | 3 | Y |
| Sumanta Banerjee | 1 | 2 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Supriyo sen | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Suranjana Saha | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90.00 | 3 | Y |
| Swagata Das | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Swaraj Dutta | 2 | 2 | 2 | 1 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Swati Samai | 1 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Syed Sadain Abid Hussain | 2 | 1 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Talha Nehal | 1 | 2 | 2 | 1 | 1 | 7 | 10 | 70.00 | 3 | Y |
| Tanmoy Kundu | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Tapas Banik | 2 | 2 | 2 | 1 | 1 | 8 | 10 | 80.00 | 3 | Y |
| Urvashi Majithia | 2 | 1 | 2 | 1 | 2 | 8 | 10 | 80.00 | 3 | Y |
| Uttla Aiswarya | 2 | 2 | 1 |  | 2 | 7 | 10 | 70.00 | 3 | Y |
| Vijay Agarwal | 1 | 2 | 1 |  | 2 | 6 | 10 | 60.00 | 3 | Y |
| Vishal Kumar Mishra | 2 | 1 | 1 |  | 1 | 5 | 10 | 50.00 | 2 | N |
| Vivek Gupta | 1 | 2 | 1 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
| Vivek Kumar | 2 | 1 | 1 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
| ABHIK MUKHERJEE(L) | 2 | 2 | 1 | 2 | 1 | 8 | 10 | 80 | 3 | Y |
| ANINDITA CHANDRA(L) | 2 | 2 | 1 | 2 | 1 | 8 | 10 | 80 | 3 | Y |
| ARNAB CHAKRABORTY(L) | 2 | 2 | 2 | 2 | 1 | 9 | 10 | 90 | 3 | Y |
| BARNALI BISWAS(L) | 1 | 1 |  | 2 | 1 | 5 | 10 | 50 | 2 | N |
| DEBOLINA DEB(L) | 2 | 1 |  | 2 | 1 | 6 | 10 | 60 | 3 | Y |
| DIPTANU MAJUMDER(L) | 1 | 2 | 2 | 2 | 2 | 9 | 10 | 90 | 3 | Y |
| KUMARI ARCHANA(L) | 2 | 1 | 2 | 2 | 1 | 8 | 10 | 80 | 3 | Y |
| MD RAGHIB HUSSAIN(L) | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100 | 3 | Y |
| PRIYANKA GHOSH(L) | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100 | 3 | Y |
| PUJA DUTTA(L) | 2 | 2 | 2 | 2 | 2 | 10 | 10 | 100 | 3 | Y |
| ROHIT NATH(L) | 1 | 2 | 2 | 1 | 1 | 7 | 10 | 70 | 3 | Y |
| SALYALI DAS(L) | 2 | 1 | 2 | 1 | 1 | 7 | 10 | 70 | 3 | Y |
| SASWATA BISWAS(L) | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50 | 2 | Y |
| SOUVIK GHOSAL(L) | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50 | 2 | Y |
| SUDIPTA KUMAR MUKHERJEE(L) | 2 | 1 | 1 | 1 | 2 | 7 | 10 | 70 | 3 | Y |
| SUDIPTA SARKAR(L) | 2 | 2 | 1 | 2 | 1 | 8 | 10 | 80 | 3 | Y |
| TAPESH CHOWDHURY(L) | 1 | 1 | 2 | 2 | 1 | 7 | 10 | 70 | 3 | Y |
| UPAYAN DEY HAZRA(L) | 1 | 1 | 1 | 1 | 1 | 5 | 10 | 50 | 2 | Y |
|  |  |  |  |  |  |  |  | AVG | 2.95 |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Max Marks | 2 | 2 | 4 |  | % | SCORE OR GRADING BASED ON SCALE OF 3 | TARGET >=60% |
| Course outcome | CO5 | | TOTAL OBTAINED | TOTAL MARKS ATTEMPTED |
| Name | T3-Q5 | T4-Q5 |
| Abhimanyu Raj | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Abhirup Dey | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Aditya Kamlesh Shah | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Akanksha Singh | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Akash Agarwal | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Alok Kumar | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Ananya Sahana | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Aniket Daw | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Anirban Ghosh | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Aniruddha Datta | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Ankhi Debnath | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Anniksha Ghosh | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Anu Sarkar | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Arghadeep Basu | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Aritra Manna | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Arka Das | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Arnab Kumar Das | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Arpan Chakraborty | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Aruniva Nath | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Ashmita Saha | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Asmita Saha | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Atanu Jana | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Avijit Kumar | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Avik Pal | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Ayan Ghosh | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Babloo Kumar Shaw | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Baishali Roy | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Bratati Chakraborty | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Debayan Chakraborty | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Deep Bhattacharjee | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Dipanjan Datta Roy | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Dipanjan Ray Chaudhuri | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Donal Das | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Faiz Ali | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Hemant Kumar | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Himanshu Sharma | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Hitesh Shukla | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Indranil Kundu | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Indranil Paul | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Ishita Biswas | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Jayank Das | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Kalpataru Maity | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Koustav Bag | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Krishna Bindu Kumar | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Mainak Chakraborty | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Manish Kumar | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Manish Kumar Singh | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Manisha Adak | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Md. Kamaruzzaman | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Md. Rashid Feroze | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Md .Sajid Ali | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Md. Sharique Zafar | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Merry Paul | 2 | 11 | 13 | 4 | 325.00 | 3 | Y |
| Mohsina Parveen | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Monalisa Dandapat | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Nandita Mahajan | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Oindrila Choudhury | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Payal Saha | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Poulami Das | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Pourabi Roychowdhury | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Prashanta Paul | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Pratibha Maurya | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Priyanka Roy | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Puja Kumari Shaw | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Raghib Ahsan | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Rahul Das | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Rahul Sekhar Das | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Raihan Kabir | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Rajiv Kumar Singh | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Ranit Sen | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Ravi Kumar | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Renu Kumari | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Rituparno Dutta | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Rivu Ghosh | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Ronit Bhattacharyya | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Sagnik Biswas | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Saheli Saha | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Santodeb Dutta | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Saptarshi Das | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Saptarshi Podder | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Sarthak Das Roy | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Sayan Ghosh | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Sayantan Bhuin | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Sayantani Mukherjee | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Shaleen Basak | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Shibam Chatterjee | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Shilpa Chakraborty | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Shivam Verma | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Shramana Bhowmik | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Shreyashi Roy | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Shubhashree Roy | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Shweta Saha | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Siddhartha Majumdar | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Silpa Saha | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Sinthia Madhurima Panja | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Sk. Masud Ali | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Somnath Dey | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Soumya Guha | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Sreyasi Das | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Srijan Deb | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Subhankar Maity | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Subhojit Dey | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Suchismita Sengupta | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Sukanya Chaudhury | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Sulagna Bhattacharya | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Sulagna Chakraborty | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Suman Sardar | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Sumanta Banerjee | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Supriyo sen | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Suranjana Saha | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Swagata Das | 1 | 1 | 2 | 4 | 50.00 | 2 | N |
| Swaraj Dutta | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Swati Samai | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Syed Sadain Abid Hussain | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Talha Nehal | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Tanmoy Kundu | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Tapas Banik | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Urvashi Majithia | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Uttla Aiswarya | 2 | 2 | 4 | 4 | 100.00 | 3 | Y |
| Vijay Agarwal | 1 | 2 | 3 | 4 | 75.00 | 3 | Y |
| Vishal Kumar Mishra | 2 | 1 | 3 | 4 | 75.00 | 3 | Y |
| Vivek Gupta | 1 | 2 | 3 | 4 | 75 | 3 | Y |
| Vivek Kumar | 2 | 1 | 3 | 4 | 75 | 3 | Y |
| ABHIK MUKHERJEE(L) | 2 | 1 | 3 | 4 | 75 | 3 | Y |
| ANINDITA CHANDRA(L) | 2 | 2 | 4 | 4 | 100 | 3 | Y |
| ARNAB CHAKRABORTY(L) | 2 | 2 | 4 | 4 | 100 | 3 | Y |
| BARNALI BISWAS(L) | 1 | 1 | 2 | 4 | 50 | 2 | N |
| DEBOLINA DEB(L) | 1 | 1 | 2 | 4 | 50 | 2 | N |
| DIPTANU MAJUMDER(L) | 1 | 2 | 3 | 4 | 75 | 3 | Y |
| KUMARI ARCHANA(L) | 1 | 1 | 2 | 4 | 50 | 2 | N |
| MD RAGHIB HUSSAIN(L) | 2 | 2 | 4 | 4 | 100 | 3 | Y |
| PRIYANKA GHOSH(L) | 2 | 2 | 4 | 4 | 100 | 3 | N |
| PUJA DUTTA(L) | 2 | 2 | 4 | 4 | 100 | 3 | Y |
| ROHIT NATH(L) | 1 | 2 | 3 | 4 | 75 | 3 | Y |
| SALYALI DAS(L) | 1 | 1 | 2 | 4 | 50 | 2 | Y |
| SASWATA BISWAS(L) | 1 | 1 | 2 | 4 | 50 | 2 | Y |
| SOUVIK GHOSAL(L) | 1 | 1 | 2 | 4 | 50 | 2 | Y |
| SUDIPTA KUMAR MUKHERJEE(L) | 1 | 1 | 2 | 4 | 50 | 2 | Y |
| SUDIPTA SARKAR(L) | 2 | 2 | 4 | 4 | 100 | 3 | Y |
| TAPESH CHOWDHURY(L) | 1 | 1 | 2 | 4 | 50 | 2 | Y |
| UPAYAN DEY HAZRA(L) | 1 | 1 | 2 | 4 | 50 | 2 | Y |
|  |  |  |  |  | AVG | 2.69 |  |

**CO attainment for a course EC792:**

Target: 60% students must achieve 60% and above

Total number of student for the batch 2012-2016 in first year=141

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Course outcome | Avg. grading on scale of 3 | Distribution % | | |
| 3 | 2 | 1 |
| CO1 | 2.97 | 137/141=97.1% | 4/141=2.83% | 0/141=0% |
| CO2 | 2.92 | 130/141=92.19% | 11/141=7.80% | 0/141=0% |
| CO3 | 2.88 | 125/141=88.6% | 16/141=11.3% | 0/141=0% |
| CO4 | 2.95 | 134/141=95.0% | 7/141=95.0% | 0/141=0% |
| CO5 | 2.69 | 98/141=69.5% | 29/120=30.4% | 0/141=0% |

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

CO achieved if percentage (%) of students is greater than or equal to 60

|  |  |  |
| --- | --- | --- |
| Course outcomes | % of students achieved CO | CO result (achieved) (Y/N) |
| CO1 | 97.1% | Y |
| CO2 | 92.1% | Y |
| CO3 | 88.6% | Y |
| CO4 | 95.0% | Y |
| CO5 | 69.5% | Y |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CO** | **Statement** | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| EC-692.1 | Ability to analyze sampled Sinusoidal signal, various sequences and different arithmetic operations, convolution properties of convolution, circular convolution ,differentiation between linear and circular convolutions, sectioned convolution. | 3 | 3 | 2 | 3 | 3 | - | - | - | 2 | 2 | - | 2 |
| EC692.2 | Understand and analyzing z-transform of various sequences - verification of the properties. | 3 | 3 | 2 | 3 | 3 | - | - | - | 2 | 2 | - | 2 |
| EC 692.3 | Acquired knowledge of Twiddle factors, DFT, FFT, and IDFT | 3 | 3 | 2 | 3 | 3 | - | - | - | 2 | 2 | - | 2 |
| EC692.4 | Ability to design of Butterworth Filter design with different set of design parameters, using  Rectangular, Hamming, Hamming, Bartlett windows and comparisons of these designs.  . | 3 | 3 | 2 | 3 | 3 | - | - | - | 2 | 2 | - | 2 |
| EC692.5 | Acquired knowledge of Hardware Laboratory using either 5416 or 6713 Processor: | 3 | 3 | 2 | 3 | 3 | - | - | - | 2 | 2 | - | 2 |
| EC692 | | 3 | 3 | 2 | 3 | 3 | - | - | - | 2 | 2 | - | 2 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| EC692 | 3 | 3 | 2 | 3 | 3 | - | - | - | 2 | 2 | - | 2 |

Result of attainment of POs (CIE)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Course | COs | CO Attainment | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| EC692 | CO1 | 97.10% | 97.10% | 97.10% | 64.73% | 97.10% | 97.10% | - | - | - | 64.73% | 64.73% | - | 64.73% |
|  | CO2 | 92.10% | 92.10% | 92.10% | 61.40% | 92.10% | 92.10% | - | - | - | 61.40% | 61.40% | - | 61.40% |
|  | CO3 | 88.60% | 88.60% | 88.60% | 59.07% | 88.60% | 88.60% | - | - | - | 59.07% | 59.07% | - | 59.07% |
|  | CO4 | 95.00% | 95.00% | 95.00% | 63.33% | 95.00% | 95.00% | - | - | - | 63.33% | 63.33% | - | 63.33% |
|  | CO5 | 69.50% | 69.50% | 69.50% | 46.33% | 69.50% | 69.50% | - | - | - | 46.33% | 46.33% | - | 46.33% |
| AVG |  |  | 88.46% | 88.46% | 59% | 88.46% | 88.46% | - | - | - | 59% | 59% | - | 59% |