BML MUNJAL UNIVERSITY™

FROM HERE TO THE WORLD

SCHOOL OF ENGINEERING & TECHNOLOGY

COURSE FILE

Program: Computer Science Engineering
Course Code: CSE3022
Course Title: Digital Image Processing
Module Semester: 5th Sem
Session: 2024-2025

Index

S. No.	Topics
1.	Course Details: Course-Code; Course Title; Semester/Term/Module; Year
2.	Vision, Mission of the University
3.	Graduate Attributes of the BMU Students
4.	Vision, Mission of the School
5.	PEOs and POs & PSOs of the Program
6	Course Description and its objectives
7	Course Outcomes and CO-PO Mapping
8	Course Syllabus: (including Course Content with Module-wise teaching hours allocated; Readings, Activities, Teaching Strategy, and Module mapped to COs, Text Book(s), Reference Books, Other learning resources)
9	Detailed Session wise Plan
10	Weekly Timetable
11	Registered Students List
12	Details of Internal Assessments; weightages, due dates, mapping to CO
13	Mid Semester Question papers with sample solutions
14	Sample Evaluated Internal Submissions and Identification of weak students.
15	Reflections from the Mid-term semester feedback received, and interventions made to enhance the student learning and continuous improvement in teaching and learning strategies.

16	Interventions made for slow performers and advanced learners, highlighting initiatives taken for student improvements (retest, resubmissions etc.)
17	End Semester Question papers with sample solutions
18	Detail of Marks in all components up to the End Semester
19	Attendance Report
20	Final record of Results (including the grades)
21	Analyzing Direct Feedback received on Course Outcomes
22	CO Attainment Measurement Analysis
23	Interventions made for slow performers and advanced learners, highlighting initiatives taken for student improvements (retest, resubmissions etc.)
24	End Semester Question papers with sample solutions
25	Feedback (class committee or otherwise) and corrective actions (if any)
26	Faculty Course Review (if any, like Use of Innovative Pedagogies; Technology; Experiential Learning; Integration with the Vision and Mission of the University; Feedback; Course Outcome attainment for the next run of the course)
27	Any other additional information

1.   Course Details

- Course Code: CSE3022
- Course Title: Digital Image Processing
- **Module/Semester: 5th Sem**
- Session: 2024-2025

2. Vision, Mission of the University

Vision

BML Munjal University seeks to nurture ethical leaders who are skilled, knowledgeable and have the life skills required for leading their organizations to success. The university shall seek the advancement and dissemination of practically oriented knowledge benchmarked with the best global standards.

Mission

BML Munjal University aims to be a leading university for the quality and impact of its teaching, research and linkages with major stakeholders. The focus of the university is to find creative solutions to problems through application of knowledge. The university aims to create a talented community of students and faculty who excel in teaching, learning and research, in a creative and stimulating environment. The university will collaborate with other institutions for development of science, technology and arts in the global context.

3. Graduate Attributes

- Acquire and apply practical understanding of discipline knowledge.

- Demonstrate a sense of ethics and display excellence in both personal and professional life.

- Exhibit problem solving, critical thinking skills and investigative capability to address real world problems.

- Manifest leadership qualities and work effectively in teams across globally diverse environments.

- Be a lifelong learner with an entrepreneurial mindset to innovate in the constantly changing global scenario.

- Possess a strong sense of inquiry and design innovative solutions for positive societal impact.

- Be effective communicators and possess an empathetic outlook.

4. Vision, Mission of the School

Vision of School:

To be amongst the leading engineering schools of the country recognized globally for excellence in teaching and research with focus on experiential learning, innovation and entrepreneurship.

Mission of School:

* Providing high-quality learning experience to our students, preparing them to be global leaders, and contributing to the development of society through research, innovation, and entrepreneurship.
* Creating an inclusive and diverse learning environment that fosters creativity, critical thinking, and ethical values.

* Collaborating with industry, government, and other institutions to address complex societal challenges and promote sustainable development.

5. PEOs and POs & PSOs of the Program

Program Educational Objectives (PEO):

PEO 1: Identify real-life problems and develop creative and innovative hardware/software-based solutions.

PEO 2: Achieve professional development through self-learning to adapt to the technological changes in the ever changing field of computing.

PEO 3: Engage in life-long learning of computer engineering technologies, critical thinking and continuous ingenuity and apply them in real-life applications.

PEO 4: Accomplish leadership roles by imbibing ethics and professionalism with emphasis on sustainable development of the society.

Program Outcomes (PO):

PO1: Apply the foundational concepts of mathematics, science and computer engineering to find novel solutions for complex real-life engineering problems.

PO2: Identify, formulate, review literature and analyze complex computer engineering problems reaching substantiated conclusions and derive a coherent logic that can be implemented by computers.

PO3: Design analytical and computational models for solving complex engineering problems giving due consideration to issues related to public health and safety, cultural and societal constraints, and environmental concerns.

PO4: Use research-based knowledge, methods, tools and techniques for data collection, designing digital computing systems, analyzing and interpreting the results to provide substantiated conclusions.

PO5: Use appropriate tools to model complex computer engineering problems through identification of the limitations and creating solutions to predict the real-world phenomena.

PO6: Use appropriate contextual knowledge of computer engineering to review and assess societal, health, legal, cultural, safety and contemporary issues and rationalize the ensuing responsibilities towards the society.

PO7: Adopt computer engineering practices in congruence with societal need, understand the working practices and its impact on natural resources for sustainable development.

PO8: Use ethical principles to pursue excellence in developing computer engineering systems and behave appropriately to develop a reliable and trustworthy relationship with others.

PO9: Function effectively as a reliable and responsible individual, and as a member or leader in diverse computer engineering teams, and in multidisciplinary settings, thereby placing team goals ahead of individual interests.

PO10: Communicate effectively by capturing the desirable computer system requirements for preparation of specification documents, write clear and concise report such as laboratory files, research papers, thesis, and presentation materials.

PO11: Demonstrate knowledge of computer engineering and management principles for the completion of individual or group projects in multidisciplinary environments.

PO12: Recognize the evolving technological changes and engage as an independent and life-long learner

in both computing and non-computing fields.

Program Specific Outcomes (PSO):

PSO1: Identify applicable tools and techniques related to data science practice such as data collection, cleaning, analysis, modelling, evaluation and result interpretation and apply them for deriving hidden and meaningful patterns for appropriate actionable insights.

PSO2: Develop intelligent systems for various real-life domains like healthcare, transportation, finance etc. using Artificial Intelligence methodologies.

PSO3: Understand the foundational concepts and techniques to protect computing systems against constantly evolving cybersecurity threats and analyze security breaches and violations of cyber systems and networks to provide appropriate solutions.

PSO4: Design effective security systems to mitigate risks, threats and vulnerabilities for protecting the organizations against cyber threats.

6. Course Description and its objectives

wow it actually is working !!!!!!! """"""" ./...../././././.,.;;l;.[;[];@#$%^&*()_+{}":?>?<>>??":}{+_)(*^$@#@

7. Course Outcomes and CO-PO Mapping

Course Outcomes:

CO1: Understand fundamental concepts and principles of digital image processing.

CO2: Apply and demonstrate different image pre-processing and enhancement techniques in the spatial and frequency domains.

CO3: Analyze various state of art algorithms to process images for various applications.

CO4: Design framework to solve real-life and societal problems using appropriate methods, interpreting results, and reporting.

CO/PO Mapping:

Course Outcomes (CO)	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CO1	2	1				0	0	0	0	0	0	1	3	2	0	0
CO2	2	3		1	0	0	0	0	0	0	0	0	0	2	0	0
CO3		3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
CO4						2	0	1	2	2	0	0	0	3	2	0

8. Course Syllabus

Sr. No.	Content	CO	Sessions
1	Visual Perception • Image Sensing and Acquisition • Image Sampling and Quantization • Representing Digital Images • Spatial and Intensity Resolution	1	2
2	Gray-level transformations and processing in the spatial domain, Enhancement using arithmetic/logic operations, Image derivatives, filtering- smoothing, sharpening, convolution and correlation. Histogram processing – stretching, equalization, and matching. Image interpolation.	1,2,3	3
3	Fourier transformation and processing in the frequency domain – DFT, FFT, Inverse Fourier transformation, Filtering: smoothing and sharpening in the frequency domain, convolution.	1,2,3	3
4	Wavelet Transform and Multi-resolution Processing: Introduction to Wavelet Transform, Continuous and Discrete Wavelet Transform, Wavelet-based image processing techniques, Multi-resolution analysis, Applications of Wavelet Transform in image compression and denoising	1,2,3	3
5	Noise models, restoration in the spatial domain, periodic noise reduction using frequency domain filtering, and Inverse filtering.	1	4
6	Color models and transformations, Smoothing and sharpening, and segmentation.	1,2	2
7	Dilation • Erosion • Opening • Closing • Boundary extraction • Thinning.	1	5
8	Image compression fundamentals • Lossless compressions and Lossy compression Techniques.	1,3,4	5
9	Detection of discontinuities, Edge linking, and boundary detection, Thresholding, Region-based segmentation, Segmentation using morphology.	1,3	5
10	Introduction to Image Representation and Description: - Chain code, Polynomial approximation, Signatures, Skeletons; Regional description – Texture -- gray-level-cooccurrence matrix.	1	4

12

9. Learning Resources

Text Books:

✓ Rafael C. Gonzalez, Richard E. Woods; Digital Image Processing; 3rd Ed., Pearson, ISBN: 978-0131687288

Reference Links:

- https://www.coursera.org/learn/digital

10. Weekly Timetable

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:15-10:10	Digital Image Processing (CSE3022)		Digital Image Processing (CSE3022)	Digital Image Processing (CSE3022)	
10:15-11:10	Digital Image Processing (CSE3022)	Digital Image Processing (CSE3022)	Digital Image Processing (CSE3022)	Digital Image Processing (CSE3022)	
11:15-12:10			Digital Image Processing (CSE3022)		
12:15-13:10	Digital Image Processing (CSE3022)	Digital Image Processing (CSE3022)		Digital Image Processing (CSE3022)	
13:15-14:10	Digital Image Processing (CSE3022)	Digital Image Processing (CSE3022)			
14:15-15:10	Digital Image Processing (CSE3022)				
15:15-16:10					
16:15-17:10					
17:15-18:10					

11. Registered Students List

Sr.No	Student Name	Unique Id.
1	Kanika	220C2030054
2	SAGAR SINDHU	220C2030062
3	DIVYANSHU BANSAL	220C2030065
4	Ananya Aggarwal	220C2030068
5	Karan Sharma	220C2030070
6	Nihar Singla	220C2030071
7	Abhinav Vuddagiri	220C2030073
8	Aryan Pratap Singh	220C2030074
9	Dhruv Sharma	220C2030076
10	Aastha Singh	220C2030077
11	Siddhika Sinha	220C2030078
12	Saatvik Bhola	220C2030081
13	Sapare Aravind	220C2030086
14	Vishwajeet Tripathi	220C2030087
15	Gopala Krishna Nuthakki	220C2030091
16	Vemula Chetan Nihith	220C2030093
17	Punit Yadav	220C2030096
18	Sanskar Gupta	220C2030098
19	jatin nunach	220C2030099
20	Nirbhay	220C2030102
21	GUNEET CHAWLA	220C2030105
22	Raghvendra Singh Chouhan	220C2030108
23	Siddharth Singh	220C2030109
24	ANIL KUMAR	220C2030111
25	Aman Gupta	220C2030114
26	Daksh Verma	220C2030115
27	Ayushman Raghav	220C2030116
28	Pranav Raj	220C2030118
29	Aditya Rastogi	220C2030119
30	Nikhil Kumar Tomar	220C2030120
31	Bhuwan Dahiya	220C2030127
32	Piyush Garg	220C2030181
33	Bhavesh Choudhary	220C2030185
34	Purav Malik	220C2030210
35	Shaleen Chordia	220C2030223
36	Vishal Yadav	220C2030245
37	Peehu Khandelwal	220C2030247
38	Pryanshu Kumar	220C2030248
39	Paras Khola	220C2030249
40	Swapnadip Nandi	220C2030251
41	CHAITANYA KALRA	220C2030253
42	Shashank Gupta	220C2030256
43	Anirudh Shukla	220C2030257
44	Suryadeep .	220C2030258
45	Manan Khandelwal	220C2030267
46	Manav Saini	220C2030283
47	Himanshu Chaturvedi	220C2030284
48	Raghav Malik	220C2030285
49	Archie Khubnani	220C2030288
50	Manav	220C2030293
51	Shivam Purohit	220C2030305
52	Ritika Gupta	220C2030311
53	Ashish Ranjan	220C2030326
54	Siddhant Kalla	220C2030333

55	Batchu Ratna Lahari	220C2030002
56	Nishant Luhera	220C2030003
57	Vidyansh Raj Gupta	220C2030006
58	Monika	220C2030007
59	Nakshatra Mittal	220C2030008
60	Manavendra Singh	220C2030009
61	Raj Kumar Shrivas	220C2030010
62	Sanya Goel	220C2030011
63	Likhit Sagar Gajja	220C2030012
64	Sarthak Gupta	220C2030016
65	Jasmine Sindhu	220C2030017
66	Anirudh Dattu	220C2030018
67	Himanshu Mohanty	220C2030019
68	Rohan Dhingra	220C2030020
69	Akaash Gupta Vandanapu	220C2030022
70	Abhay Rajesh Shah	220C2030023
71	Lalit Kumar	220C2030024
72	Naman Sharma	220C2030025
73	ROHIT YADAV	220C2030026
74	Aryashrestha Sagar	220C2030027
75	Aryyan Ahlawat	220C2030028
76	BHAVUK	220C2030029
77	Rongali Aryan	220C2030030
78	Vikas Choudhary	220C2030032
79	Muskan Yadav	220C2030033
80	E Umesh	220C2030036
81	Mitnapure Prasad Sharad	220C2030038
82	Basireddy Nithishreddy	220C2030044
83	Chinmay Srivastava	220C2030045
84	Sheena Mittal	220C2030046
85	Akshay Katoch	220C2030047
86	Aakarsh Purwar	220C2030048
87	Akshaya Velumuri	220C2030049
88	Manasvi .	220C2030052
89	Mayank Pratap Singh	220C2030053
90	Aadit Arora	220C2030055
91	Pranav Kanumuri	220C2030058
92	Raghav Arora	220C2030060
93	YAMA LALITHA SAI MADHURI	220C2030067
94	Prashant Kumar	220C2030075
95	Rudra Gupta	220C2030083
96	Maitri Sharma	220C2030090
97	Archit Prasher	220C2030100
98	RAGHUVANSH SINGH PARMAR	220C2030110
99	Viresh Chauhan	220C2030112
100	Aditya Agarwal	220C2030170
101	Kartik Mehta	220C2030178
102	Daksh Goel	220C2030200
103	Akshay Korrapati	220C2030224
104	Ruchi Verma	220C2030242
105	Daksh	220C2030246
106	Vidhika Mangla	220C2030252
107	Bhumika	220C2030280
108	Bhawna	220C2030281
109	Govind Madhav Sharma	220C2030299
110	Ankur Singh	220C2030300
111	Ratul Pal	220C2030015
112	Vaibhav Arora	220C2030021

113	Nidamanuri Bhargava Srinivas	220C2030031
114	Garv Garg	220C2030035
115	Saksham Pandla	220C2030072
116	Zahra Rakhshan	220C2030107
117	Udit Chauhan	220C2030113
118	Divas Sharma	220C2030117
119	Anurag Godara	220C2030121
120	Gaurangi	220C2030122
121	Siddhant Ashwary Tiwari	220C2030123
122	Priyansh Arora	220C2030124
123	Ishika Kochhar	220C2030125
124	Lakkshya Gupta	220C2030126
125	MOHAK GUPTA	220C2030128
126	Aditya Bansal	220C2030129
127	PAVAN THRINATH KALVAKOTA	220C2030130
128	Namrata DHINGRA	220C2030131
129	Jatin Kumar Phogat	220C2030132
130	Abhinav Sharma	220C2030133
131	Sohan Sen	220C2030134
132	Krishnansh Garg	220C2030136
133	Parag Garg	220C2030138
134	Yash Arora	220C2030139
135	Saurabh	220C2030140
136	Mridul Singh	220C2030141
137	Utkarsh Tonk	220C2030143
138	RISHIT ABHILASH	220C2030145
139	Shivanshi Goel	220C2030147
140	Hardik Pandey	220C2030148
141	Anup Kumar	220C2030149
142	Nishtha Jain	220C2030150
143	Gagan Singhal	220C2030151
144	Ayushi Singh	220C2030152
145	Phani Harshith Kotturu	220C2030154
146	Yogesh Sharma	220C2030155
147	Shradha Aggarwal	220C2030157
148	Hemant kumar	220C2030159
149	Divyansh verma	220C2030160
150	Suraj	220C2030161
151	Nishant	220C2030163
152	Ankit Rathi	220C2030164
153	Bhomik Tomar	220C2030165
154	Vidushi Saxena	220C2030167
155	Divyansh Verma	220C2030168
156	Chetan Sharma	220C2030169
157	Prakhar Kumar Srivastava	220C2030171
158	B Anirudh	220C2030174
159	Aranav Kumar	220C2030175
160	Ayush Sengar	220C2030176
161	Nikhil Kumar	220C2030177
162	Vedansh Kumawat	220C2030179
163	DAKSHI ARORA	220C2030180
164	Anushka mishra	220C2030213
165	Diya Rawal	220C2030228
166	Deepanshu Mehlawat	220C2030255
167	Kashish Dagar	220C2030259
168	Anant Singh	220C2030260
169	Anant Upadhiyay	220C2030261
170	Anusha Singh	220C2030263

171	Gourav Sharma	220C2030292
172	Payal Dabas	220C2030004
173	Yash Vardhan Kasana	220C2030005
174	Anika Sharma	220C2030014
175	Jatin Singh	220C2030037
176	Yash Sharma	220C2030051
177	Astha Rai	220C2030057
178	Meenakshi Kamakolanu	220C2030059
179	Jashan Kamboj	220C2030079
180	Suryansh Sharma	220C2030080
181	Mohit Kalwar	220C2030082
182	Kushagra Gangwar	220C2030089
183	Divyam Verma	220C2030142
184	Shubhangi Sinha	220C2030153
185	Ayush Gurjar	220C2030156
186	Shreya Gupta	220C2030184
187	Gautam Jain	220C2030186
188	Boppana Chaitanya	220C2030187
189	Sai Tejaswi Woonna	220C2030189
190	Vishwas Choudhary	220C2030190
191	Ananya Srivastava	220C2030191
192	Rithik Yadav	220C2030192
193	Shreyansh Tripathi	220C2030193
194	Vansh Tyagi	220C2030194
195	Yashveer Ahlawat	220C2030195
196	Rishabh .	220C2030196
197	Akshay Menon	220C2030197
198	Harshit Jain	220C2030198
199	Abhishek Sharma	220C2030199
200	Suryansh Dubey	220C2030201
201	Manish Kumar	220C2030202
202	Tanish Dhingra	220C2030203
203	Mukul Dev	220C2030204
204	Anshul Gadia	220C2030207
205	Akshay Parihar	220C2030208
206	Sai Ram Aditya Kasarla	220C2030209
207	Abhishek Dadhich	220C2030212
208	Ayush Chauhan	220C2030215
209	Sai Sri Mohnit Akula	220C2030216
210	Pulagam Sanjay Reddy	220C2030218
211	Aaditya Malhotra	220C2030219
212	Vinit Yaduvanshi	220C2030222
213	Khushi	220C2030225
214	Sejal Kumari	220C2030227
215	Uday Sushanth Malleboina	220C2030229
216	Robin Yadav	220C2030230
217	Sayantan .	220C2030231
218	Harshita Rupani	220C2030232
219	Himanshu	220C2030234
220	Mayank Garg	220C2030235
221	Bhargavi Sharma	220C2030237
222	Gautam Shukla	220C2030239
223	Vansh Gulati	220C2030241
224	Abhinav .	220C2030243
225	Harshit Saharan	220C2030262
226	Ashish Saharia	220C2030268
227	Priyanshu Garg	220C2030269
228	Radhika Bhati	220C2030270

229	Kushaal Adithya Kalluri	220C2030272
230	Sahil Merothia	220C2030273
231	Krish Sakhuja	220C2030274
232	Rohit	220C2030276
233	Deepanshu Aggarwal	220C2030279
234	Manav Sharma	220C2030001
235	Anmol Maheshwari	220C2030034
236	Rishi Mahajan	220C2030040
237	Rohit Rathi	220C2030050
238	Manan Lakhotia	220C2030063
239	Saransh Bhargava	220C2030069
240	Rishabh Sharma	220C2030085
241	Jayant	220C2030101
242	Lakshya Bindal	220C2030106
243	Akshit Gupta	220C2030144
244	Harsh Singh	220C2030172
245	Ritika Yadav	220C2030182
246	Vaasu	220C2030183
247	Apoorva Tyagi	220C2030188
248	Vansh Shukla	220C2030205
249	Priyanshi Srivastava	220C2030211
250	Shruti	220C2030217
251	Harsh Kumar	220C2030233
252	Vikram Mittal	220C2030250
253	Mishthi	220C2030254
254	Anshul Yadav	220C2030264
255	Udit Kumar	220C2030265
256	Vivek Sherawat	220C2030266
257	Aditya Tak	220C2030277
258	Anjali	220C2030278
259	Aakankshi	220C2030282
260	Sujal Yadav	220C2030287
261	Shivanshu -	220C2030289
262	Anurag Anand	220C2030290
263	Gaurish Bhatia	220C2030291
264	Sanjeev Kumar	220C2030294
265	Dishank Sharma	220C2030297
266	Umesh	220C2030301
267	Ashim Choudhary	220C2030302
268	Harsh	220C2030303
269	Keshav .	220C2030304
270	Ishika Panwar	220C2030306
271	K Sai Revanth Revanth	220C2030307
272	Vaibhav Chauhan	220C2030308
273	Man Mohit Yadav	220C2030309
274	Gaurav Chaudhary	220C2030310
275	Aayush Bhardwaj	220C2030312
276	Vineet Kumar	220C2030313
277	Deepanshi	220C2030314
278	Nishant Kasana	220C2030315
279	Umang Gupta	220C2030316
280	Utplaksh Mishra	220C2030317
281	Komal Sharma	220C2030318
282	Sunny Bishnoi	220C2030319
283	Kartik	220C2030320
284	Himanshu .	220C2030321
285	Vivek Sachdeva	220C2030322
286	Tanish Somani	220C2030323

287	Sugandha Choudhary	220C2030324
288	Tushar Tripathi	220C2030327
289	Charu Saini	220C2030328
290	Harshad Kaushal	220C2030329
291	Ashwikk Patel	220C2030330
292	Rahul Sharma	220C2030331
293	Harsh Sehrawat	220C2030332
294	Dipanshu Srivastava	220C2030334
295	Lakshay Nandwani	220C2030336

19. Attendance Report

Sr.No	Student Name	Unique Id.	Attendance
1	Kanika	220C2030054	80.56
2	SAGAR SINDHU	220C2030062	80.56
3	DIVYANSHU BANSAL	220C2030065	97.22
4	Ananya Aggarwal	220C2030068	97.22
5	Karan Sharma	220C2030070	83.33
6	Nihar Singla	220C2030071	86.11
7	Abhinav Vuddagiri	220C2030073	83.33
8	Aryan Pratap Singh	220C2030074	77.78
9	Dhruv Sharma	220C2030076	75
10	Aastha Singh	220C2030077	83.33
11	Siddhika Sinha	220C2030078	88.89
12	Saatvik Bhola	220C2030081	77.78
13	Sapare Aravind	220C2030086	94.44
14	Vishwajeet Tripathi	220C2030087	91.67
15	Gopala Krishna Nuthakki	220C2030091	83.33
16	Vemula Chetan Nihith	220C2030093	86.11
17	Punit Yadav	220C2030096	83.33
18	Sanskar Gupta	220C2030098	91.67
19	jatin nunach	220C2030099	94.44
20	Nirbhay	220C2030102	97.22
21	GUNEET CHAWLA	220C2030105	77.78
22	Raghvendra Singh Chouhan	220C2030108	91.67
23	Siddharth Singh	220C2030109	83.33
24	ANIL KUMAR	220C2030111	83.33
25	Aman Gupta	220C2030114	94.44
26	Daksh Verma	220C2030115	80.56
27	Ayushman Raghav	220C2030116	88.89
28	Pranav Raj	220C2030118	88.89
29	Aditya Rastogi	220C2030119	86.11
30	Nikhil Kumar Tomar	220C2030120	91.67
31	Bhuwan Dahiya	220C2030127	86.11
32	Piyush Garg	220C2030181	91.67
33	Bhavesh Choudhary	220C2030185	94.44
34	Purav Malik	220C2030210	91.67
35	Shaleen Chordia	220C2030223	91.67
36	Vishal Yadav	220C2030245	91.67
37	Peehu Khandelwal	220C2030247	86.11
38	Pryanshu Kumar	220C2030248	88.89
39	Paras Khola	220C2030249	80.56
40	Swapnadip Nandi	220C2030251	100
41	CHAITANYA KALRA	220C2030253	91.67
42	Shashank Gupta	220C2030256	91.67
43	Anirudh Shukla	220C2030257	80.56
44	Suryadeep .	220C2030258	83.33
45	Manan Khandelwal	220C2030267	86.11
46	Manav Saini	220C2030283	91.67
47	Himanshu Chaturvedi	220C2030284	86.11
48	Raghav Malik	220C2030285	94.44
49	Archie Khubnani	220C2030288	86.11
50	Manav	220C2030293	94.44
51	Shivam Purohit	220C2030305	86.11
52	Ritika Gupta	220C2030311	88.89
53	Ashish Ranjan	220C2030326	88.89
54	Siddhant Kalla	220C2030333	88.89

55	Batchu Ratna Lahari	220C2030002	80.77
56	Nishant Luhera	220C2030003	76.92
57	Vidyansh Raj Gupta	220C2030006	82.69
58	Monika	220C2030007	90.38
59	Nakshatra Mittal	220C2030008	65.38
60	Manavendra Singh	220C2030009	94.23
61	Raj Kumar Shrivas	220C2030010	92.31
62	Sanya Goel	220C2030011	88.46
63	Likhit Sagar Gajja	220C2030012	76.92
64	Sarthak Gupta	220C2030016	80.77
65	Jasmine Sindhu	220C2030017	78.85
66	Anirudh Dattu	220C2030018	88.46
67	Himanshu Mohanty	220C2030019	84.62
68	Rohan Dhingra	220C2030020	82.69
69	Akaash Gupta Vandanapu	220C2030022	82.69
70	Abhay Rajesh Shah	220C2030023	84.62
71	Lalit Kumar	220C2030024	82.69
72	Naman Sharma	220C2030025	86.54
73	ROHIT YADAV	220C2030026	86.54
74	Aryashrestha Sagar	220C2030027	84.62
75	Aryyan Ahlawat	220C2030028	78.85
76	BHAVUK	220C2030029	92.31
77	Rongali Aryan	220C2030030	80.77
78	Vikas Choudhary	220C2030032	78.85
79	Muskan Yadav	220C2030033	90.38
80	E Umesh	220C2030036	78.85
81	Mitnapure Prasad Sharad	220C2030038	84.62
82	Basireddy Nithishreddy	220C2030044	78.85
83	Chinmay Srivastava	220C2030045	90.38
84	Sheena Mittal	220C2030046	84.62
85	Akshay Katoch	220C2030047	82.69
86	Aakarsh Purwar	220C2030048	84.62
87	Akshaya Velumuri	220C2030049	84.62
88	Manasvi .	220C2030052	86.54
89	Mayank Pratap Singh	220C2030053	80.77
90	Aadit Arora	220C2030055	61.54
91	Pranav Kanumuri	220C2030058	75
92	Raghav Arora	220C2030060	82.69
93	YAMA LALITHA SAI MADHURI	220C2030067	86.54
94	Prashant Kumar	220C2030075	82.69
95	Rudra Gupta	220C2030083	75
96	Maitri Sharma	220C2030090	84.62
97	Archit Prasher	220C2030100	94.23
98	RAGHUVANSH SINGH PARMAR	220C2030110	98.08
99	Viresh Chauhan	220C2030112	78.85
100	Aditya Agarwal	220C2030170	86.54
101	Kartik Mehta	220C2030178	94.23
102	Daksh Goel	220C2030200	82.69
103	Akshay Korrapati	220C2030224	75
104	Ruchi Verma	220C2030242	82.69
105	Daksh	220C2030246	92.31
106	Vidhika Mangla	220C2030252	90.38
107	Bhumika	220C2030280	84.62
108	Bhawna	220C2030281	86.54
109	Govind Madhav Sharma	220C2030299	78.85
110	Ankur Singh	220C2030300	80.77
111	Ratul Pal	220C2030015	81.25
112	Vaibhav Arora	220C2030021	81.25

113	Nidamanuri Bhargava Srinivas	220C2030031	81.25
114	Garv Garg	220C2030035	78.13
115	Saksham Pandla	220C2030072	75
116	Zahra Rakhshan	220C2030107	84.38
117	Udit Chauhan	220C2030113	78.13
118	Divas Sharma	220C2030117	87.5
119	Anurag Godara	220C2030121	84.38
120	Gaurangi	220C2030122	96.88
121	Siddhant Ashwary Tiwari	220C2030123	84.38
122	Priyansh Arora	220C2030124	93.75
123	Ishika Kochhar	220C2030125	78.13
124	Lakkshya Gupta	220C2030126	93.75
125	MOHAK GUPTA	220C2030128	87.5
126	Aditya Bansal	220C2030129	78.13
127	PAVAN THRINATH KALVAKOTA	220C2030130	87.5
128	Namrata DHINGRA	220C2030131	93.75
129	Jatin Kumar Phogat	220C2030132	93.75
130	Abhinav Sharma	220C2030133	87.5
131	Sohan Sen	220C2030134	90.63
132	Krishnansh Garg	220C2030136	87.5
133	Parag Garg	220C2030138	90.63
134	Yash Arora	220C2030139	90.63
135	Saurabh	220C2030140	84.38
136	Mridul Singh	220C2030141	81.25
137	Utkarsh Tonk	220C2030143	81.25
138	RISHIT ABHILASH	220C2030145	78.13
139	Shivanshi Goel	220C2030147	78.13
140	Hardik Pandey	220C2030148	84.38
141	Anup Kumar	220C2030149	93.75
142	Nishtha Jain	220C2030150	87.5
143	Gagan Singhal	220C2030151	87.5
144	Ayushi Singh	220C2030152	81.25
145	Phani Harshith Kotturu	220C2030154	87.5
146	Yogesh Sharma	220C2030155	78.13
147	Shradha Aggarwal	220C2030157	90.63
148	Hemant kumar	220C2030159	81.25
149	Divyansh verma	220C2030160	87.5
150	Suraj	220C2030161	90.63
151	Nishant	220C2030163	96.88
152	Ankit Rathi	220C2030164	96.88
153	Bhomik Tomar	220C2030165	84.38
154	Vidushi Saxena	220C2030167	81.25
155	Divyansh Verma	220C2030168	87.5
156	Chetan Sharma	220C2030169	87.5
157	Prakhar Kumar Srivastava	220C2030171	84.38
158	B Anirudh	220C2030174	81.25
159	Aranav Kumar	220C2030175	84.38
160	Ayush Sengar	220C2030176	87.5
161	Nikhil Kumar	220C2030177	75
162	Vedansh Kumawat	220C2030179	81.25
163	DAKSHI ARORA	220C2030180	93.75
164	Anushka mishra	220C2030213	81.25
165	Diya Rawal	220C2030228	75
166	Deepanshu Mehlawat	220C2030255	96.88
167	Kashish Dagar	220C2030259	84.38
168	Anant Singh	220C2030260	84.38
169	Anant Upadhiyay	220C2030261	78.13
170	Anusha Singh	220C2030263	93.75

171	Gourav Sharma	220C2030292	84.38
172	Payal Dabas	220C2030004	90.16
173	Yash Vardhan Kasana	220C2030005	90.16
174	Anika Sharma	220C2030014	95.08
175	Jatin Singh	220C2030037	86.89
176	Yash Sharma	220C2030051	90.16
177	Astha Rai	220C2030057	88.52
178	Meenakshi Kamakolanu	220C2030059	96.72
179	Jashan Kamboj	220C2030079	93.44
180	Suryansh Sharma	220C2030080	88.52
181	Mohit Kalwar	220C2030082	91.8
182	Kushagra Gangwar	220C2030089	91.8
183	Divyam Verma	220C2030142	86.89
184	Shubhangi Sinha	220C2030153	91.8
185	Ayush Gurjar	220C2030156	96.72
186	Shreya Gupta	220C2030184	98.36
187	Gautam Jain	220C2030186	90.16
188	Boppana Chaitanya	220C2030187	81.97
189	Sai Tejaswi Woonna	220C2030189	96.72
190	Vishwas Choudhary	220C2030190	93.44
191	Ananya Srivastava	220C2030191	81.97
192	Rithik Yadav	220C2030192	93.44
193	Shreyansh Tripathi	220C2030193	93.44
194	Vansh Tyagi	220C2030194	95.08
195	Yashveer Ahlawat	220C2030195	78.69
196	Rishabh .	220C2030196	83.61
197	Akshay Menon	220C2030197	91.8
198	Harshit Jain	220C2030198	91.8
199	Abhishek Sharma	220C2030199	93.44
200	Suryansh Dubey	220C2030201	81.97
201	Manish Kumar	220C2030202	86.89
202	Tanish Dhingra	220C2030203	83.61
203	Mukul Dev	220C2030204	86.89
204	Anshul Gadia	220C2030207	91.8
205	Akshay Parihar	220C2030208	93.44
206	Sai Ram Aditya Kasarla	220C2030209	88.52
207	Abhishek Dadhich	220C2030212	91.8
208	Ayush Chauhan	220C2030215	83.61
209	Sai Sri Mohnit Akula	220C2030216	90.16
210	Pulagam Sanjay Reddy	220C2030218	96.72
211	Aaditya Malhotra	220C2030219	93.44
212	Vinit Yaduvanshi	220C2030222	86.89
213	Khushi	220C2030225	96.72
214	Sejal Kumari	220C2030227	91.8
215	Uday Sushanth Malleboina	220C2030229	100
216	Robin Yadav	220C2030230	96.72
217	Sayantan .	220C2030231	95.08
218	Harshita Rupani	220C2030232	85.25
219	Himanshu	220C2030234	96.72
220	Mayank Garg	220C2030235	95.08
221	Bhargavi Sharma	220C2030237	93.44
222	Gautam Shukla	220C2030239	81.97
223	Vansh Gulati	220C2030241	95.08
224	Abhinav .	220C2030243	96.72
225	Harshit Saharan	220C2030262	77.05
226	Ashish Saharia	220C2030268	96.72
227	Priyanshu Garg	220C2030269	95.08
228	Radhika Bhati	220C2030270	91.8

229	Kushaal Adithya Kalluri	220C2030272	95.08
230	Sahil Merothia	220C2030273	85.25
231	Krish Sakhuja	220C2030274	88.52
232	Rohit	220C2030276	93.44
233	Deepanshu Aggarwal	220C2030279	93.44
234	Manav Sharma	220C2030001	75.41
235	Anmol Maheshwari	220C2030034	78.69
236	Rishi Mahajan	220C2030040	86.89
237	Rohit Rathi	220C2030050	77.05
238	Manan Lakhotia	220C2030063	80.33
239	Saransh Bhargava	220C2030069	86.89
240	Rishabh Sharma	220C2030085	80.33
241	Jayant	220C2030101	77.05
242	Lakshya Bindal	220C2030106	90.16
243	Akshit Gupta	220C2030144	88.52
244	Harsh Singh	220C2030172	77.05
245	Ritika Yadav	220C2030182	95.08
246	Vaasu	220C2030183	78.69
247	Apoorva Tyagi	220C2030188	75.41
248	Vansh Shukla	220C2030205	75.41
249	Priyanshi Srivastava	220C2030211	86.89
250	Shruti	220C2030217	88.52
251	Harsh Kumar	220C2030233	90.16
252	Vikram Mittal	220C2030250	75.41
253	Mishthi	220C2030254	93.44
254	Anshul Yadav	220C2030264	88.52
255	Udit Kumar	220C2030265	81.97
256	Vivek Sherawat	220C2030266	88.52
257	Aditya Tak	220C2030277	86.89
258	Anjali	220C2030278	80.33
259	Aakankshi	220C2030282	81.97
260	Sujal Yadav	220C2030287	91.8
261	Shivanshu -	220C2030289	91.8
262	Anurag Anand	220C2030290	81.97
263	Gaurish Bhatia	220C2030291	77.05
264	Sanjeev Kumar	220C2030294	86.89
265	Dishank Sharma	220C2030297	75.41
266	Umesh	220C2030301	88.52
267	Ashim Choudhary	220C2030302	95.08
268	Harsh	220C2030303	85.25
269	Keshav .	220C2030304	85.25
270	Ishika Panwar	220C2030306	88.52
271	K Sai Revanth Revanth	220C2030307	80.33
272	Vaibhav Chauhan	220C2030308	80.33
273	Man Mohit Yadav	220C2030309	96.72
274	Gaurav Chaudhary	220C2030310	78.69
275	Aayush Bhardwaj	220C2030312	86.89
276	Vineet Kumar	220C2030313	90.16
277	Deepanshi	220C2030314	90.16
278	Nishant Kasana	220C2030315	75.41
279	Umang Gupta	220C2030316	95.08
280	Utplaksh Mishra	220C2030317	77.05
281	Komal Sharma	220C2030318	81.97
282	Sunny Bishnoi	220C2030319	81.97
283	Kartik	220C2030320	86.89
284	Himanshu .	220C2030321	90.16
285	Vivek Sachdeva	220C2030322	91.8
286	Tanish Somani	220C2030323	78.69

287	Sugandha Choudhary	220C2030324	83.61
288	Tushar Tripathi	220C2030327	80.33
289	Charu Saini	220C2030328	88.52
290	Harshad Kaushal	220C2030329	85.25
291	Ashwikk Patel	220C2030330	91.8
292	Rahul Sharma	220C2030331	78.69
293	Harsh Sehrawat	220C2030332	83.61
294	Dipanshu Srivastava	220C2030334	83.61
295	Lakshay Nandwani	220C2030336	91.8

18, 20 Detail of Marks in all components up to the End Semester

Sr.No	Student Name	Unique Id.	Grading	Synopsis-1 Out of (10)	Mid Term Exam-1 Out of (30)	Quiz Offline NON ERP-1 Out of (20)	End Term Presentation-1 Out of (40)	TOTAL Marks(100.0) Out of (100)
1	Kanika	220C2030054	C+	7	18	7	28	60
2	SAGAR SINDHU	220C2030062	B	8.5	22	9	29	68.5
3	DIVYANSHU BANSAL	220C2030065	B	7.5	22	12	26	67.5
4	Ananya Aggarwal	220C2030068	B	7.5	19	11	30	67.5
5	Karan Sharma	220C2030070	C	6	16	13	22	57
6	Nihar Singla	220C2030071	B+	7.5	23	12	28	70.5
7	Abhinav Vuddagiri	220C2030073	B	7.5	18	14	26	65.5
8	Aryan Pratap Singh	220C2030074	B	8	21	10	29	68
9	Dhruv Sharma	220C2030076	B+	8	21	13	29	71
10	Aastha Singh	220C2030077	B+	8	21	12	29	70
11	Siddhika Sinha	220C2030078	B+	8	23	11	31	73
12	Saatvik Bhola	220C2030081	B+	8.5	21	12	31	72.5
13	Sapare Aravind	220C2030086	C	7.5	17	6	26	56.5
14	Vishwajeet Tripathi	220C2030087	B+	9	20	16	27	72
15	Gopala Krishna Nuthakki	220C2030091	B+	8.5	19	19	26	72.5
16	Vemula Chetan Nihith	220C2030093	B+	8.5	19	16	26	69.5
17	Punit Yadav	220C2030096	C	6.5	21	6	25	58.5
18	Sanskar Gupta	220C2030098	B	9	22	11	27	69
19	jatin nunach	220C2030099	C	7	19	5	26	57
20	Nirbhay	220C2030102	B+	7.5	22	11	29	69.5
21	GUNEET CHAWLA	220C2030105	C+	8	19	11	25	63
22	Raghvendra Singh Chouhan	220C2030108	B	7.5	20	14	27	68.5
23	Siddharth Singh	220C2030109	B+	8.5	21	13	29	71.5
24	ANIL KUMAR	220C2030111	B	7	19	13	25	64
25	Aman Gupta	220C2030114	A	8.5	21	14	31	74.5
26	Daksh Verma	220C2030115	C+	7	18	8	28	61
27	Ayushman Raghav	220C2030116	B	7	21	10	29	67
28	Pranav Raj	220C2030118	B+	8.5	21	11	30	70.5
29	Aditya Rastogi	220C2030119	B	7.5	19	11	29	66.5
30	Nikhil Kumar Tomar	220C2030120	A	9	21	17	28	75
31	Bhuwan Dahiya	220C2030127	B	7.5	20	13	28	68.5
32	Piyush Garg	220C2030181	B	7.5	22	11	26	66.5
33	Bhavesh Choudhary	220C2030185	B	8.5	22	7	29	66.5
34	Purav Malik	220C2030210	B	6.5	19	11	28	64.5
35	Shaleen Chordia	220C2030223	B	7	20	11	28	66
36	Vishal Yadav	220C2030245	C+	8	18	13	24	63
37	Peehu Khandelwal	220C2030247	C+	7.5	19	6	29	61.5

38	Pryanshu Kumar	220C2030248	A	8	22	13	31	74
39	Paras Khola	220C2030249	B	7.5	20	11	28	66.5
40	Swapnadip Nandi	220C2030251	B	8	19	11	28	66
41	CHAITANYA KALRA	220C2030253	B	6.5	19	8	30	63.5
42	Shashank Gupta	220C2030256	C	6	17	9	23	55
43	Anirudh Shukla	220C2030257	C+	7	20	7	28	62
44	Suryadeep .	220C2030258	B+	8.5	21	9	31	69.5
45	Manan Khandelwal	220C2030267	B	8.5	22	7	29	66.5
46	Manav Saini	220C2030283	B	7.5	20	11	27	65.5
47	Himanshu Chaturvedi	220C2030284	C+	6.5	21	7	25	59.5
48	Raghav Malik	220C2030285	C+	6.5	15	11	28	60.5
49	Archie Khubnani	220C2030288	B	7	20	13	29	69
50	Manav	220C2030293	A	8.5	23	12	30	73.5
51	Shivam Purohit	220C2030305	B+	8	22	11	30	71
52	Ritika Gupta	220C2030311	B	7	20	11	29	67
53	Ashish Ranjan	220C2030326	A	7.5	23	13	30	73.5
54	Siddhant Kalla	220C2030333	B+	8	22	10	31	71
55	Batchu Ratna Lahari	220C2030002	A	9	24	9	34	76
56	Nishant Luhera	220C2030003	A	9	24	8	35	76
57	Vidyansh Raj Gupta	220C2030006	C+	5	17	11	29	62
58	Monika	220C2030007	B	7.5	20	11	28	66.5
59	Nakshatra Mittal	220C2030008	C+	7	19	11	28	65
60	Manavendra Singh	220C2030009	A	9	24	11	30	74
61	Raj Kumar Shrivas	220C2030010	C	6	18	8	23	55
62	Sanya Goel	220C2030011	B+	8	22	13	30	73
63	Likhit Sagar Gajja	220C2030012	A	6.5	22	16	30	74.5
64	Sarthak Gupta	220C2030016	A+	8.5	23	15	30	76.5
65	Jasmine Sindhu	220C2030017	C+	8	17	6	30	61
66	Anirudh Dattu	220C2030018	A+	9	24	17	34	84
67	Himanshu Mohanty	220C2030019	C+	8	20	8	25	61
68	Rohan Dhingra	220C2030020	C+	7	19	9	28	63
69	Akaash Gupta Vandanapu	220C2030022	A	9	22	13	30	74
70	Abhay Rajesh Shah	220C2030023	A+	9	24	13	32	78
71	Lalit Kumar	220C2030024	B	5	20	13	26	64
72	Naman Sharma	220C2030025	B+	8.5	23	11	30	72.5
73	ROHIT YADAV	220C2030026	C	6	18	10	23	57
74	Aryashrestha Sagar	220C2030027	B+	8	24	9	30	71
75	Aryyan Ahlawat	220C2030028	B	8	18	11	30	67
76	BHAVUK	220C2030029	B	7.5	21	6	32	66.5
77	Rongali Aryan	220C2030030	B+	9	22	9	30	70
78	Vikas Choudhary	220C2030032	B	8	20	12	24	64
79	Muskan Yadav	220C2030033	C+	7.5	19	10	24	60.5
80	E Umesh	220C2030036	B	7	20	13	26	66
81	Mitnapure Prasad Sharad	220C2030038	B	8.5	19	9	29	65.5
82	Basireddy Nithishreddy	220C2030044	B	7	20	13	26	66

83	Chinmay Srivastava	220C2030045	B	8	23	11	26	68
84	Sheena Mittal	220C2030046	A	8.5	24	13	29	74.5
85	Akshay Katoch	220C2030047	B	7.5	18	11	30	66.5
86	Aakarsh Purwar	220C2030048	A+	9	24	14	31	78
87	Akshaya Velumuri	220C2030049	B	7.5	19	13	24	63.5
88	Manasvi .	220C2030052	A	8.5	23	13	29	73.5
89	Mayank Pratap Singh	220C2030053	A	8	24	13	30	75
90	Aadit Arora	220C2030055	C	7.5	19	11	24	61.5
91	Pranav Kanumuri	220C2030058	C+	9	20	5	26	60
92	Raghav Arora	220C2030060	A+	9	22	13	33	77
93	YAMA LALITHA SAI MADHURI	220C2030067	B	7.5	19	13	24	63.5
94	Prashant Kumar	220C2030075	C	6	18	12	23	59
95	Rudra Gupta	220C2030083	B	8	17	14	30	69
96	Maitri Sharma	220C2030090	B+	8	24	9	32	73
97	Archit Prasher	220C2030100	B+	7.5	23	11	29	70.5
98	RAGHUVANSH SINGH PARMAR	220C2030110	B+	8	23	14	26	71
99	Viresh Chauhan	220C2030112	A+	9	24	17	35	85
100	Aditya Agarwal	220C2030170	B+	8.5	23	13	28	72.5
101	Kartik Mehta	220C2030178	B+	9.5	21	13	27	70.5
102	Daksh Goel	220C2030200	B+	9	23	8	32	72
103	Akshay Korrapati	220C2030224	B+	6.5	22	12	30	70.5
104	Ruchi Verma	220C2030242	B	7.5	20	8	29	64.5
105	Daksh	220C2030246	B+	7	22	12	29	70
106	Vidhika Mangla	220C2030252	B+	8	24	10	30	72
107	Bhumika	220C2030280	B+	9	21	11	32	73
108	Bhawna	220C2030281	B	9	21	5	32	67
109	Govind Madhav Sharma	220C2030299	C	8	20	5	25	58
110	Ankur Singh	220C2030300	C	8	20	7	24	59
111	Ratul Pal	220C2030015	B	9	22	8	30	69
112	Vaibhav Arora	220C2030021	F	0	16	1	0	17
113	Nidamanuri Bhargava Srinivas	220C2030031	B+	9	24	8	32	73
114	Garv Garg	220C2030035	A	9	24	9	33	75
115	Saksham Pandla	220C2030072	B+	7	23	10	31	71
116	Zahra Rakhshan	220C2030107	A	9	22	12	31	74
117	Udit Chauhan	220C2030113	C+	6	18	10	28	62
118	Divas Sharma	220C2030117	B+	8	22	11	30	71
119	Anurag Godara	220C2030121	B+	7.5	23	10	30	70.5
120	Gaurangi	220C2030122	B	7	21	9	29	66
121	Siddhant Ashwary Tiwari	220C2030123	A+	9	24	12	33	78
122	Priyansh Arora	220C2030124	B+	7	24	12	27	70
123	Ishika Kochhar	220C2030125	A	7	23	15	31	76
124	Lakkshya Gupta	220C2030126	A+	9	23	15	32	79
125	MOHAK GUPTA	220C2030128	C+	7.5	24	7	24	62.5
126	Aditya Bansal	220C2030129	B	6.5	18	7	32	63.5
127	PAVAN THRINATH KALVAKOTA	220C2030130	A	9	23	12	32	76
128	Namrata DHINGRA	220C2030131	B	8	22	6	29	65

129	Jatin Kumar Phogat	220C2030132	B	5	20	13	27	65
130	Abhinav Sharma	220C2030133	B	7	21	8	31	67
131	Sohan Sen	220C2030134	B	6.5	21	7	29	63.5
132	Krishnansh Garg	220C2030136	C+	5.5	21	9	27	62.5
133	Parag Garg	220C2030138	A+	8.5	23	13	33	77.5
134	Yash Arora	220C2030139	B	7	24	11	27	69
135	Saurabh	220C2030140	B	7.5	22	13	24	66.5
136	Mridul Singh	220C2030141	B	7	21	9	31	68
137	Utkarsh Tonk	220C2030143	B+	8	25	11	29	73
138	RISHIT ABHILASH	220C2030145	B	8	22	7	29	66
139	Shivanshi Goel	220C2030147	C+	5.5	21	8	27	61.5
140	Hardik Pandey	220C2030148	C+	7	21	3	29	60
141	Anup Kumar	220C2030149	D	0	20	3	26	49
142	Nishtha Jain	220C2030150	A+	8	26	16	29	79
143	Gagan Singhal	220C2030151	A+	8	24	14	32	78
144	Ayushi Singh	220C2030152	B+	8	24	8	32	72
145	Phani Harshith Kotturu	220C2030154	B	7.5	24	10	24	65.5
146	Yogesh Sharma	220C2030155	B	7	21	11	29	68
147	Shradha Aggarwal	220C2030157	B+	7.5	23	11	30	71.5
148	Hemant kumar	220C2030159	B	5	18	10	31	64
149	Divyansh verma	220C2030160	C+	6	22	7	26	61
150	Suraj	220C2030161	C+	6.5	22	8	26	62.5
151	Nishant	220C2030163	B	4.5	24	9	29	66.5
152	Ankit Rathi	220C2030164	B	4.5	24	9	29	66.5
153	Bhomik Tomar	220C2030165	A	9	24	10	33	76
154	Vidushi Saxena	220C2030167	A	9	22	12	31	74
155	Divyansh Verma	220C2030168	C+	4.5	18	8	31	61.5
156	Chetan Sharma	220C2030169	C	8	21	6	24	59
157	Prakhar Kumar Srivastava	220C2030171	B	6.5	22	9	27	64.5
158	B Anirudh	220C2030174	B	8	22	8	31	69
159	Aranav Kumar	220C2030175	C+	6.5	23	8	24	61.5
160	Ayush Sengar	220C2030176	B	7.5	23	8	28	66.5
161	Nikhil Kumar	220C2030177	C+	6.5	23	8	24	61.5
162	Vedansh Kumawat	220C2030179	B	8	23	10	28	69
163	DAKSHI ARORA	220C2030180	A	8.5	23	10	33	74.5
164	Anushka mishra	220C2030213	B+	7	24	13	29	73
165	Diya Rawal	220C2030228	A	7	24	15	29	75
166	Deepanshu Mehlawat	220C2030255	A	7.5	24	11	31	73.5
167	Kashish Dagar	220C2030259	C	5.5	18	9	24	56.5
168	Anant Singh	220C2030260	B	7	21	9	29	66
169	Anant Upadhiyay	220C2030261	C+	6.5	21	3	29	59.5
170	Anusha Singh	220C2030263	C+	8	17	11	27	63
171	Gourav Sharma	220C2030292	B	8	23	8	28	67
172	Payal Dabas	220C2030004	B	8	23	5	30	66
173	Yash Vardhan Kasana	220C2030005	C	5	22	8	24	59
174	Anika Sharma	220C2030014	A+	9	26	10	32	77
175	Jatin Singh	220C2030037	C	5	21	7	24	57
176	Yash Sharma	220C2030051	B	6	22	9	28	65
177	Astha Rai	220C2030057	B	6	23	9	28	66
178	Meenakshi Kamakolanu	220C2030059	A+	9	25	12	32	78

179	Jashan Kamboj	220C2030079	C+	6	21	11	24	62
180	Suryansh Sharma	220C2030080	C+	6	20	10	26	62
181	Mohit Kalwar	220C2030082	B+	6	21	15	31	73
182	Kushagra Gangwar	220C2030089	B	6	23	12	28	69
183	Divyam Verma	220C2030142	C+	5	22	12	24	63
184	Shubhangi Sinha	220C2030153	B+	7	22	13	30	72
185	Ayush Gurjar	220C2030156	B+	6	23	11	30	70
186	Shreya Gupta	220C2030184	A+	9	26	13	32	80
187	Gautam Jain	220C2030186	B	6	18	13	28	65
188	Boppana Chaitanya	220C2030187	A	8	25	11	31	75
189	Sai Tejaswi Woonna	220C2030189	A+	8	25	17	32	82
190	Vishwas Choudhary	220C2030190	B	7	23	9	28	67
191	Ananya Srivastava	220C2030191	B	7	19	9	30	65
192	Rithik Yadav	220C2030192	B	7	22	9	29	67
193	Shreyansh Tripathi	220C2030193	C+	7	21	7	28	63
194	Vansh Tyagi	220C2030194	C+	6	21	7	28	62
195	Yashveer Ahlawat	220C2030195	C+	6	21	8	28	63
196	Rishabh .	220C2030196	B	7	20	10	30	67
197	Akshay Menon	220C2030197	B	7	21	10	28	66
198	Harshit Jain	220C2030198	A	6	23	15	30	74
199	Abhishek Sharma	220C2030199	B+	8	25	8	32	73
200	Suryansh Dubey	220C2030201	C	5	18	9	26	58
201	Manish Kumar	220C2030202	C	6	18	10	23	57
202	Tanish Dhingra	220C2030203	C+	6	18	15	23	62
203	Mukul Dev	220C2030204	B	7	21	9	30	67
204	Anshul Gadia	220C2030207	C+	7	21	7	28	63
205	Akshay Parihar	220C2030208	C	5	18	10	26	59
206	Sai Ram Aditya Kasarla	220C2030209	B+	8	23	11	31	73
207	Abhishek Dadhich	220C2030212	C+	7	19	10	25	61
208	Ayush Chauhan	220C2030215	B	7	23	10	28	68
209	Sai Sri Mohnit Akula	220C2030216	A+	8	25	13	32	78
210	Pulagam Sanjay Reddy	220C2030218	A+	8	25	13	32	78
211	Aaditya Malhotra	220C2030219	B	6	21	9	31	67
212	Vinit Yaduvanshi	220C2030222	B	7	22	7	30	66
213	Khushi	220C2030225	B+	8	23	10	30	71
214	Sejal Kumari	220C2030227	A	8	25	10	32	75
215	Uday Sushanth Malleboina	220C2030229	A+	8	25	13	32	78
216	Robin Yadav	220C2030230	B+	7	22	11	31	71
217	Sayantan .	220C2030231	A+	8	25	13	32	78
218	Harshita Rupani	220C2030232	C+	7	19	7	30	63
219	Himanshu	220C2030234	B	6	23	9	30	68
220	Mayank Garg	220C2030235	B+	7	22	10	31	70
221	Bhargavi Sharma	220C2030237	B+	8	23	10	31	72
222	Gautam Shukla	220C2030239	C+	6	18	9	27	60
223	Vansh Gulati	220C2030241	B	7	18	12	27	64
224	Abhinav .	220C2030243	C+	7	18	11	27	63

225	Harshit Saharan	220C2030262	B	7	18	13	27	65
226	Ashish Saharia	220C2030268	B	8	20	7	30	65
227	Priyanshu Garg	220C2030269	C+	6	21	11	24	62
228	Radhika Bhati	220C2030270	A+	9	25	10	33	77
229	Kushaal Adithya Kalluri	220C2030272	A+	8	26	13	33	80
230	Sahil Merothia	220C2030273	C+	6	20	9	25	60
231	Krish Sakhuja	220C2030274	C	6	18	6	28	58
232	Rohit	220C2030276	B	9	20	10	30	69
233	Deepanshu Aggarwal	220C2030279	A+	9	25	10	33	77
234	Manav Sharma	220C2030001	C	5	18	10	23	56
235	Anmol Maheshwari	220C2030034	B	8	21	10	30	69
236	Rishi Mahajan	220C2030040	C+	7	21	8	27	63
237	Rohit Rathi	220C2030050	B	8	21	9	28	66
238	Manan Lakhotia	220C2030063	B+	8	21	13	30	72
239	Saransh Bhargava	220C2030069	B+	8	23	10	31	72
240	Rishabh Sharma	220C2030085	C+	7	20	9	26	62
241	Jayant	220C2030101	C	6	18	9	23	56
242	Lakshya Bindal	220C2030106	B	6	21	10	30	67
243	Akshit Gupta	220C2030144	B+	8	21	13	28	70
244	Harsh Singh	220C2030172	C	5	18	13	20	56
245	Ritika Yadav	220C2030182	B+	7	22	13	29	71
246	Vaasu	220C2030183	C+	6	18	13	23	60
247	Apoorva Tyagi	220C2030188	C	5	18	10	20	53
248	Vansh Shukla	220C2030205	B	6	21	10	30	67
249	Priyanshi Srivastava	220C2030211	B+	7	23	10	30	70
250	Shruti	220C2030217	B	7	21	10	28	66
251	Harsh Kumar	220C2030233	B	6	21	10	29	66
252	Vikram Mittal	220C2030250	A	7	23	15	29	74
253	Mishthi	220C2030254	B+	8	23	10	32	73
254	Anshul Yadav	220C2030264	B	7	22	10	29	68
255	Udit Kumar	220C2030265	B	7	22	12	27	68
256	Vivek Sherawat	220C2030266	B+	6	21	14	31	72
257	Aditya Tak	220C2030277	A+	9	26	10	34	79
258	Anjali	220C2030278	C+	6	19	11	27	63
259	Aakankshi	220C2030282	B	8	21	9	28	66
260	Sujal Yadav	220C2030287	B	6	21	9	30	66
261	Shivanshu -	220C2030289	B+	8	22	11	31	72
262	Anurag Anand	220C2030290	B+	8	23	11	30	72
263	Gaurish Bhatia	220C2030291	C	6	17	11	22	56
264	Sanjeev Kumar	220C2030294	B	7	19	11	27	64
265	Dishank Sharma	220C2030297	C	6	17	12	22	57
266	Umesh	220C2030301	B+	7	23	12	29	71
267	Ashim Choudhary	220C2030302	B	6	21	10	30	67
268	Harsh	220C2030303	C+	7	18	12	24	61
269	Keshav .	220C2030304	B	7	22	14	26	69
270	Ishika Panwar	220C2030306	B	7	22	9	28	66
271	K Sai Revanth Revanth	220C2030307	B+	8	23	9	30	70
272	Vaibhav Chauhan	220C2030308	B	7	21	9	27	64
273	Man Mohit Yadav	220C2030309	B	7	19	11	27	64
274	Gaurav Chaudhary	220C2030310	C+	7	20	9	26	62

32

275	Aayush Bhardwaj	220C2030312	B+	7	22	12	29	70
276	Vineet Kumar	220C2030313	B+	8	21	15	29	73
277	Deepanshi	220C2030314	A	8	22	14	31	75
278	Nishant Kasana	220C2030315	C+	6	18	13	25	62
279	Umang Gupta	220C2030316	B	6	21	13	29	69
280	Utplaksh Mishra	220C2030317	B+	6	21	13	30	70
281	Komal Sharma	220C2030318	B+	7	22	14	28	71
282	Sunny Bishnoi	220C2030319	B	6	19	12	27	64
283	Kartik	220C2030320	C	7	17	10	23	57
284	Himanshu .	220C2030321	A	8	22	13	31	74
285	Vivek Sachdeva	220C2030322	A	8	22	15	30	75
286	Tanish Somani	220C2030323	B	7	22	11	29	69
287	Sugandha Choudhary	220C2030324	C	6	17	6	24	53
288	Tushar Tripathi	220C2030327	C+	5	22	6	27	60
289	Charu Saini	220C2030328	B	7	22	11	28	68
290	Harshad Kaushal	220C2030329	C+	7	18	8	29	62
291	Ashwikk Patel	220C2030330	B+	8	22	13	30	73
292	Rahul Sharma	220C2030331	B+	6	21	13	31	71
293	Harsh Sehrawat	220C2030332	B	7	18	13	29	67
294	Dipanshu Srivastava	220C2030334	A	7	23	14	30	74
295	Lakshay Nandwani	220C2030336	A	8	23	11	32	74

12. CO Attainment Analysis

CO Attainment Summary

Course Outcomes	CO1	CO2	CO3	CO4
Weights	12.00%	12.00%	13.00%	13.00%
No. of students scored greater than 3	27	252	125	47
Percentage of students scored greater than 3	9.15%	85.42%	42.37%	15.93%
Attainment Level	1	3	2	1
Overall Course Attainment	1.7500			

Percentage of Students Scored ≥ 3

CO4 — 15.93%
CO3 — 42.37%
CO2 — 85.42%
CO1 — 9.15%

Percentage (%)
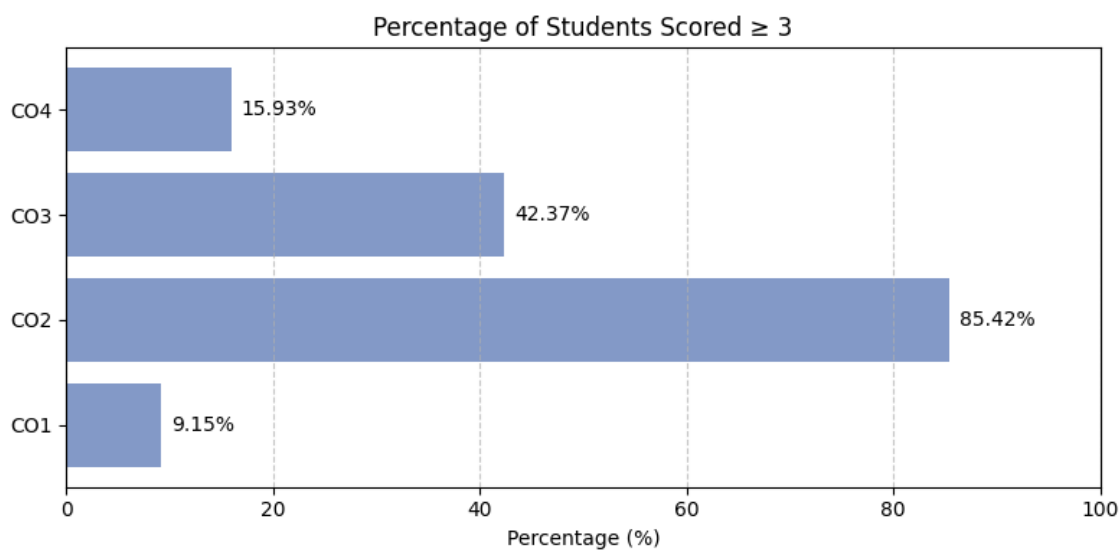
Program Attainment

Program Outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
Program Attainment	2.47	2.56	2.42	2.85	0.00	2.16	0.00	2.16	2.16	2.16	0.00	2.09	2.09	2.34	2.16	0.00

Program Attainment

PSO4 - 0.00
PSO3 - 2.16
PSO2 - 2.34
PSO1 - 2.09
PO12 - 2.09
PO11 - 0.00
PO10 - 2.16
PO9 - 2.16
PO8 - 2.16
PO7 - 0.00
PO6 - 2.16
PO5 - 0.00
PO4 - 2.85
PO3 - 2.42
PO2 - 2.56
PO1 - 2.47

Attainment
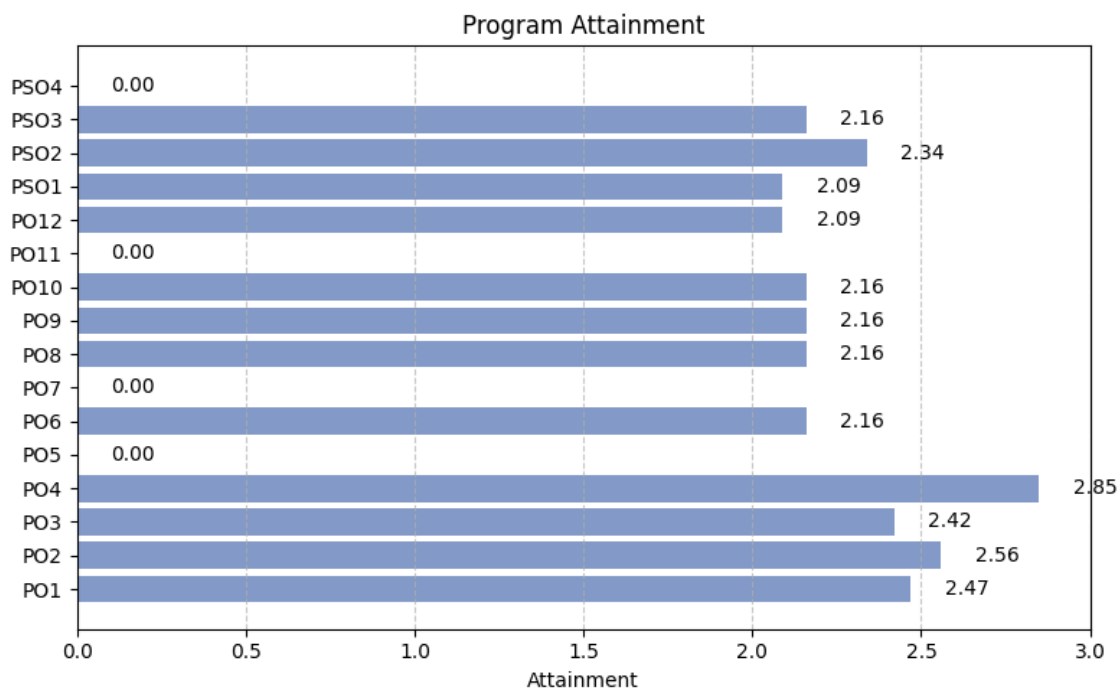
Student-wise CO Achievement

NAME	CO1 Score	CO2 Score	CO3 Score	CO4 Score
Kanika	2	2	2	2
SAGAR SINDHU	2	3	3	2
DIVYANSHU BANSAL	2	3	2	2
Ananya Aggarwal	2	3	2	2
Karan Sharma	2	2	2	2
Nihar Singla	2	3	3	2
Abhinav Vuddagiri	2	3	2	2
Aryan Pratap Singh	2	3	2	2
Dhruv Sharma	2	3	3	2
Aastha Singh	2	3	3	2
Siddhika Sinha	2	3	3	2
Saatvik Bhola	2	3	3	2
Sapare Aravind	2	2	2	2
Vishwajeet Tripathi	2	3	3	2
Gopala Krishna Nuthakki	2	3	3	2
Vemula Chetan Nihith	2	3	3	2
Punit Yadav	2	2	2	2
Sanskar Gupta	2	3	3	2
jatin nunach	2	2	2	2
Nirbhay	2	3	3	2
GUNEET CHAWLA	2	3	2	2
Raghvendra Singh Chouhan	2	3	2	2
Siddharth Singh	2	3	3	2
ANIL KUMAR	2	3	2	2
Aman Gupta	2	3	3	3
Daksh Verma	2	2	2	2
Ayushman Raghav	2	3	2	2
Pranav Raj	2	3	3	2
Aditya Rastogi	2	3	2	2
Nikhil Kumar Tomar	2	3	3	3
Bhuwan Dahiya	2	3	2	2
Piyush Garg	2	3	2	2
Bhavesh Choudhary	2	3	2	2
Purav Malik	2	3	2	2
Shaleen Chordia	2	3	2	2
Vishal Yadav	2	3	2	2
Peehu Khandelwal	2	2	2	2
Pryanshu Kumar	2	3	3	3
Paras Khola	2	3	2	2
Swapnadip Nandi	2	3	2	2
CHAITANYA KALRA	2	3	2	2
Shashank Gupta	2	2	2	2
Anirudh Shukla	2	3	2	2
Suryadeep .	2	3	3	2
Manan Khandelwal	2	3	2	2
Manav Saini	2	3	2	2
Himanshu Chaturvedi	2	2	2	2
Raghav Malik	2	2	2	2

Archie Khubnani	2	3	2	2
Manav	2	3	3	2
Shivam Purohit	2	3	3	2
Ritika Gupta	2	3	2	2
Ashish Ranjan	2	3	3	2
Siddhant Kalla	2	3	3	2
Batchu Ratna Lahari	2	3	3	3
Nishant Luhera	2	3	3	3
Vidyansh Raj Gupta	2	3	2	2
Monika	2	3	2	2
Nakshatra Mittal	2	3	2	2
Manavendra Singh	2	3	3	3
Raj Kumar Shrivas	2	2	2	2
Sanya Goel	2	3	3	2
Likhit Sagar Gajja	3	3	3	2
Sarthak Gupta	3	3	3	3
Jasmine Sindhu	2	2	2	2
Anirudh Dattu	3	3	3	3
Himanshu Mohanty	2	2	2	2
Rohan Dhingra	2	3	2	2
Akaash Gupta Vandanapu	2	3	3	3
Abhay Rajesh Shah	3	3	3	3
Lalit Kumar	2	3	2	2
Naman Sharma	2	3	3	2
ROHIT YADAV	2	2	2	2
Aryashrestha Sagar	2	3	3	2
Aryyan Ahlawat	2	3	2	2
BHAVUK	2	3	2	2
Rongali Aryan	2	3	3	2
Vikas Choudhary	2	3	2	2
Muskan Yadav	2	2	2	2
E Umesh	2	3	2	2
Mitnapure Prasad Sharad	2	3	2	2
Basireddy Nithishreddy	2	3	2	2
Chinmay Srivastava	2	3	2	2
Sheena Mittal	2	3	3	3
Akshay Katoch	2	3	2	2
Aakarsh Purwar	3	3	3	3
Akshaya Velumuri	2	3	2	2
Manasvi .	2	3	3	2
Mayank Pratap Singh	2	3	3	3
Aadit Arora	2	3	2	2
Pranav Kanumuri	2	2	2	2
Raghav Arora	3	3	3	3
YAMA LALITHA SAI MADHURI	2	3	2	2
Prashant Kumar	2	2	2	2
Rudra Gupta	2	3	3	2
Maitri Sharma	2	3	3	2
Archit Prasher	2	3	3	2
RAGHUVANSH SINGH PARMAR	2	3	3	2
Viresh Chauhan	3	3	3	3

Aditya Agarwal	2	3	3	2
Kartik Mehta	2	3	3	2
Daksh Goel	2	3	3	2
Akshay Korrapati	2	3	3	2
Ruchi Verma	2	3	2	2
Daksh	2	3	3	2
Vidhika Mangla	2	3	3	2
Bhumika	2	3	3	3
Bhawna	2	3	3	2
Govind Madhav Sharma	2	2	2	2
Ankur Singh	2	2	2	2
Ratul Pal	2	3	3	2
Vaibhav Arora	1	1	1	1
Nidamanuri Bhargava Srinivas	2	3	3	3
Garv Garg	2	3	3	3
Saksham Pandla	2	3	3	2
Zahra Rakhshan	2	3	3	3
Udit Chauhan	2	3	2	2
Divas Sharma	2	3	3	2
Anurag Godara	2	3	3	2
Gaurangi	2	3	2	2
Siddhant Ashwary Tiwari	3	3	3	3
Priyansh Arora	2	3	2	2
Ishika Kochhar	3	3	3	3
Lakkshya Gupta	3	3	3	3
MOHAK GUPTA	2	3	2	2
Aditya Bansal	2	3	2	2
PAVAN THRINATH KALVAKOTA	2	3	3	3
Namrata DHINGRA	2	3	2	2
Jatin Kumar Phogat	2	3	2	2
Abhinav Sharma	2	3	2	2
Sohan Sen	2	3	2	2
Krishnansh Garg	2	3	2	2
Parag Garg	3	3	3	3
Yash Arora	2	3	2	2
Saurabh	2	3	2	2
Mridul Singh	2	3	2	2
Utkarsh Tonk	2	3	3	2
RISHIT ABHILASH	2	3	2	2
Shivanshi Goel	2	3	2	2
Hardik Pandey	2	2	2	2
Anup Kumar	2	2	2	2
Nishtha Jain	3	3	3	3
Gagan Singhal	3	3	3	3
Ayushi Singh	2	3	3	2
Phani Harshith Kotturu	2	3	2	2
Yogesh Sharma	2	3	2	2
Shradha Aggarwal	2	3	3	2
Hemant kumar	2	3	2	2
Divyansh verma	2	3	2	2
Suraj	2	3	2	2

Name				
Nishant	2	3	2	2
Ankit Rathi	2	3	2	2
Bhomik Tomar	2	3	3	3
Vidushi Saxena	2	3	3	3
Divyansh Verma	2	3	2	2
Chetan Sharma	2	2	2	2
Prakhar Kumar Srivastava	2	3	2	2
B Anirudh	2	3	3	2
Aranav Kumar	2	3	2	2
Ayush Sengar	2	3	2	2
Nikhil Kumar	2	3	2	2
Vedansh Kumawat	2	3	3	2
DAKSHI ARORA	2	3	3	3
Anushka mishra	2	3	3	2
Diya Rawal	3	3	3	2
Deepanshu Mehlawat	2	3	3	2
Kashish Dagar	2	2	2	2
Anant Singh	2	3	2	2
Anant Upadhiyay	2	2	2	2
Anusha Singh	2	3	2	2
Gourav Sharma	2	3	2	2
Payal Dabas	2	3	2	2
Yash Vardhan Kasana	2	2	2	2
Anika Sharma	3	3	3	3
Jatin Singh	2	2	2	2
Yash Sharma	2	3	2	2
Astha Rai	2	3	2	2
Meenakshi Kamakolanu	3	3	3	3
Jashan Kamboj	2	3	2	2
Suryansh Sharma	2	3	2	2
Mohit Kalwar	2	3	3	2
Kushagra Gangwar	2	3	2	2
Divyam Verma	2	3	2	2
Shubhangi Sinha	2	3	3	2
Ayush Gurjar	2	3	3	2
Shreya Gupta	3	3	3	3
Gautam Jain	2	3	2	2
Boppana Chaitanya	2	3	3	3
Sai Tejaswi Woonna	3	3	3	3
Vishwas Choudhary	2	3	2	2
Ananya Srivastava	2	3	2	2
Rithik Yadav	2	3	2	2
Shreyansh Tripathi	2	3	2	2
Vansh Tyagi	2	3	2	2
Yashveer Ahlawat	2	3	2	2
Rishabh .	2	3	2	2
Akshay Menon	2	3	2	2
Harshit Jain	3	3	3	2
Abhishek Sharma	2	3	3	2
Suryansh Dubey	2	2	2	2
Manish Kumar	2	2	2	2

Tanish Dhingra	2	3	2	2
Mukul Dev	2	3	2	2
Anshul Gadia	2	3	2	2
Akshay Parihar	2	2	2	2
Sai Ram Aditya Kasarla	2	3	3	2
Abhishek Dadhich	2	3	2	2
Ayush Chauhan	2	3	2	2
Sai Sri Mohnit Akula	3	3	3	3
Pulagam Sanjay Reddy	3	3	3	3
Aaditya Malhotra	2	3	2	2
Vinit Yaduvanshi	2	3	2	2
Khushi	2	3	3	2
Sejal Kumari	2	3	3	3
Uday Sushanth Malleboina	3	3	3	3
Robin Yadav	2	3	3	2
Sayantan .	3	3	3	3
Harshita Rupani	2	3	2	2
Himanshu	2	3	2	2
Mayank Garg	2	3	3	2
Bhargavi Sharma	2	3	3	2
Gautam Shukla	2	2	2	2
Vansh Gulati	2	3	2	2
Abhinav .	2	3	2	2
Harshit Saharan	2	3	2	2
Ashish Saharia	2	3	2	2
Priyanshu Garg	2	3	2	2
Radhika Bhati	3	3	3	3
Kushaal Adithya Kalluri	3	3	3	3
Sahil Merothia	2	2	2	2
Krish Sakhuja	2	2	2	2
Rohit	2	3	3	2
Deepanshu Aggarwal	3	3	3	3
Manav Sharma	2	2	2	2
Anmol Maheshwari	2	3	3	2
Rishi Mahajan	2	3	2	2
Rohit Rathi	2	3	2	2
Manan Lakhotia	2	3	3	2
Saransh Bhargava	2	3	3	2
Rishabh Sharma	2	3	2	2
Jayant	2	2	2	2
Lakshya Bindal	2	3	2	2
Akshit Gupta	2	3	3	2
Harsh Singh	2	2	2	2
Ritika Yadav	2	3	3	2
Vaasu	2	3	2	2
Apoorva Tyagi	2	2	2	2
Vansh Shukla	2	3	2	2
Priyanshi Srivastava	2	3	3	2
Shruti	2	3	2	2
Harsh Kumar	2	3	2	2
Vikram Mittal	2	3	3	2

Mishthi	2	3	3	2
Anshul Yadav	2	3	2	2
Udit Kumar	2	3	2	2
Vivek Sherawat	2	3	3	2
Aditya Tak	3	3	3	3
Anjali	2	3	2	2
Aakankshi	2	3	2	2
Sujal Yadav	2	3	2	2
Shivanshu -	2	3	3	2
Anurag Anand	2	3	3	2
Gaurish Bhatia	2	2	2	2
Sanjeev Kumar	2	3	2	2
Dishank Sharma	2	2	2	2
Umesh	2	3	3	2
Ashim Choudhary	2	3	2	2
Harsh	2	3	2	2
Keshav .	2	3	2	2
Ishika Panwar	2	3	2	2
K Sai Revanth Revanth	2	3	3	2
Vaibhav Chauhan	2	3	2	2
Man Mohit Yadav	2	3	2	2
Gaurav Chaudhary	2	3	2	2
Aayush Bhardwaj	2	3	3	2
Vineet Kumar	2	3	3	2
Deepanshi	2	3	3	3
Nishant Kasana	2	3	2	2
Umang Gupta	2	3	2	2
Utplaksh Mishra	2	3	3	2
Komal Sharma	2	3	3	2
Sunny Bishnoi	2	3	2	2
Kartik	2	2	2	2
Himanshu .	2	3	3	3
Vivek Sachdeva	2	3	3	3
Tanish Somani	2	3	2	2
Sugandha Choudhary	2	2	2	2
Tushar Tripathi	2	2	2	2
Charu Saini	2	3	2	2
Harshad Kaushal	2	2	2	2
Ashwikk Patel	2	3	3	2
Rahul Sharma	2	3	3	2
Harsh Sehrawat	2	3	2	2
Dipanshu Srivastava	2	3	3	2
Lakshay Nandwani	2	3	3	3
Average	**2.09**	**2.85**	**2.42**	**2.16**

Course Outcome Attainment
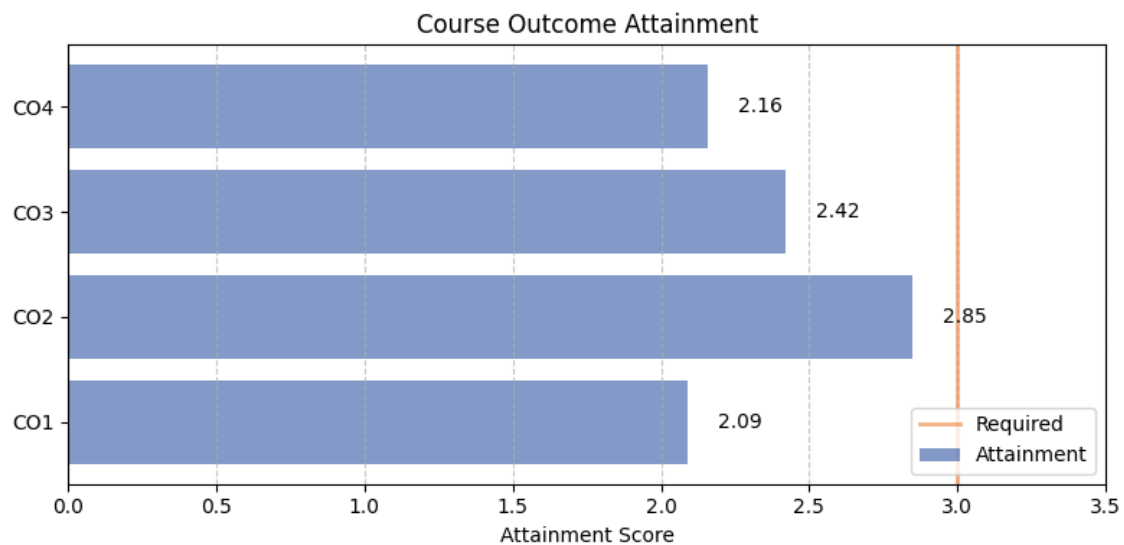
13. Student Learning Categories for Partial Semester

Learner Categories Summary for Partial Semester

Learner Category	Number of Students
Advanced Learners	0
Medium Learners	295
Low Performers	0

Student Learning Classification for Partial Semester

Student Name	Category
Kanika	Medium Learner
SAGAR SINDHU	Medium Learner
DIVYANSHU BANSAL	Medium Learner
Ananya Aggarwal	Medium Learner
Karan Sharma	Medium Learner
Nihar Singla	Medium Learner
Abhinav Vuddagiri	Medium Learner
Aryan Pratap Singh	Medium Learner
Dhruv Sharma	Medium Learner
Aastha Singh	Medium Learner
Siddhika Sinha	Medium Learner
Saatvik Bhola	Medium Learner
Sapare Aravind	Medium Learner
Vishwajeet Tripathi	Medium Learner
Gopala Krishna Nuthakki	Medium Learner
Vemula Chetan Nihith	Medium Learner
Punit Yadav	Medium Learner
Sanskar Gupta	Medium Learner
jatin nunach	Medium Learner
Nirbhay	Medium Learner
GUNEET CHAWLA	Medium Learner
Raghvendra Singh Chouhan	Medium Learner
Siddharth Singh	Medium Learner
ANIL KUMAR	Medium Learner
Aman Gupta	Medium Learner
Daksh Verma	Medium Learner
Ayushman Raghav	Medium Learner
Pranav Raj	Medium Learner
Aditya Rastogi	Medium Learner
Nikhil Kumar Tomar	Medium Learner
Bhuwan Dahiya	Medium Learner
Piyush Garg	Medium Learner
Bhavesh Choudhary	Medium Learner
Purav Malik	Medium Learner
Shaleen Chordia	Medium Learner
Vishal Yadav	Medium Learner
Peehu Khandelwal	Medium Learner
Pryanshu Kumar	Medium Learner
Paras Khola	Medium Learner
Swapnadip Nandi	Medium Learner
CHAITANYA KALRA	Medium Learner

Shashank Gupta	Medium Learner
Anirudh Shukla	Medium Learner
Suryadeep .	Medium Learner
Manan Khandelwal	Medium Learner
Manav Saini	Medium Learner
Himanshu Chaturvedi	Medium Learner
Raghav Malik	Medium Learner
Archie Khubnani	Medium Learner
Manav	Medium Learner
Shivam Purohit	Medium Learner
Ritika Gupta	Medium Learner
Ashish Ranjan	Medium Learner
Siddhant Kalla	Medium Learner
Batchu Ratna Lahari	Medium Learner
Nishant Luhera	Medium Learner
Vidyansh Raj Gupta	Medium Learner
Monika	Medium Learner
Nakshatra Mittal	Medium Learner
Manavendra Singh	Medium Learner
Raj Kumar Shrivas	Medium Learner
Sanya Goel	Medium Learner
Likhit Sagar Gajja	Medium Learner
Sarthak Gupta	Medium Learner
Jasmine Sindhu	Medium Learner
Anirudh Dattu	Medium Learner
Himanshu Mohanty	Medium Learner
Rohan Dhingra	Medium Learner
Akaash Gupta Vandanapu	Medium Learner
Abhay Rajesh Shah	Medium Learner
Lalit Kumar	Medium Learner
Naman Sharma	Medium Learner
ROHIT YADAV	Medium Learner
Aryashrestha Sagar	Medium Learner
Aryyan Ahlawat	Medium Learner
BHAVUK	Medium Learner
Rongali Aryan	Medium Learner
Vikas Choudhary	Medium Learner
Muskan Yadav	Medium Learner
E Umesh	Medium Learner
Mitnapure Prasad Sharad	Medium Learner
Basireddy Nithishreddy	Medium Learner
Chinmay Srivastava	Medium Learner
Sheena Mittal	Medium Learner
Akshay Katoch	Medium Learner
Aakarsh Purwar	Medium Learner
Akshaya Velumuri	Medium Learner
Manasvi .	Medium Learner
Mayank Pratap Singh	Medium Learner
Aadit Arora	Medium Learner
Pranav Kanumuri	Medium Learner
Raghav Arora	Medium Learner
YAMA LALITHA SAI MADHURI	Medium Learner
Prashant Kumar	Medium Learner
Rudra Gupta	Medium Learner
Maitri Sharma	Medium Learner
Archit Prasher	Medium Learner
RAGHUVANSH SINGH PARMAR	Medium Learner

Viresh Chauhan	Medium Learner
Aditya Agarwal	Medium Learner
Kartik Mehta	Medium Learner
Daksh Goel	Medium Learner
Akshay Korrapati	Medium Learner
Ruchi Verma	Medium Learner
Daksh	Medium Learner
Vidhika Mangla	Medium Learner
Bhumika	Medium Learner
Bhawna	Medium Learner
Govind Madhav Sharma	Medium Learner
Ankur Singh	Medium Learner
Ratul Pal	Medium Learner
Vaibhav Arora	Medium Learner
Nidamanuri Bhargava Srinivas	Medium Learner
Garv Garg	Medium Learner
Saksham Pandla	Medium Learner
Zahra Rakhshan	Medium Learner
Udit Chauhan	Medium Learner
Divas Sharma	Medium Learner
Anurag Godara	Medium Learner
Gaurangi	Medium Learner
Siddhant Ashwary Tiwari	Medium Learner
Priyansh Arora	Medium Learner
Ishika Kochhar	Medium Learner
Lakkshya Gupta	Medium Learner
MOHAK GUPTA	Medium Learner
Aditya Bansal	Medium Learner
PAVAN THRINATH KALVAKOTA	Medium Learner
Namrata DHINGRA	Medium Learner
Jatin Kumar Phogat	Medium Learner
Abhinav Sharma	Medium Learner
Sohan Sen	Medium Learner
Krishnansh Garg	Medium Learner
Parag Garg	Medium Learner
Yash Arora	Medium Learner
Saurabh	Medium Learner
Mridul Singh	Medium Learner
Utkarsh Tonk	Medium Learner
RISHIT ABHILASH	Medium Learner
Shivanshi Goel	Medium Learner
Hardik Pandey	Medium Learner
Anup Kumar	Medium Learner
Nishtha Jain	Medium Learner
Gagan Singhal	Medium Learner
Ayushi Singh	Medium Learner
Phani Harshith Kotturu	Medium Learner
Yogesh Sharma	Medium Learner
Shradha Aggarwal	Medium Learner
Hemant kumar	Medium Learner
Divyansh verma	Medium Learner
Suraj	Medium Learner
Nishant	Medium Learner
Ankit Rathi	Medium Learner
Bhomik Tomar	Medium Learner
Vidushi Saxena	Medium Learner
Divyansh Verma	Medium Learner

Chetan Sharma	Medium Learner
Prakhar Kumar Srivastava	Medium Learner
B Anirudh	Medium Learner
Aranav Kumar	Medium Learner
Ayush Sengar	Medium Learner
Nikhil Kumar	Medium Learner
Vedansh Kumawat	Medium Learner
DAKSHI ARORA	Medium Learner
Anushka mishra	Medium Learner
Diya Rawal	Medium Learner
Deepanshu Mehlawat	Medium Learner
Kashish Dagar	Medium Learner
Anant Singh	Medium Learner
Anant Upadhiyay	Medium Learner
Anusha Singh	Medium Learner
Gourav Sharma	Medium Learner
Payal Dabas	Medium Learner
Yash Vardhan Kasana	Medium Learner
Anika Sharma	Medium Learner
Jatin Singh	Medium Learner
Yash Sharma	Medium Learner
Astha Rai	Medium Learner
Meenakshi Kamakolanu	Medium Learner
Jashan Kamboj	Medium Learner
Suryansh Sharma	Medium Learner
Mohit Kalwar	Medium Learner
Kushagra Gangwar	Medium Learner
Divyam Verma	Medium Learner
Shubhangi Sinha	Medium Learner
Ayush Gurjar	Medium Learner
Shreya Gupta	Medium Learner
Gautam Jain	Medium Learner
Boppana Chaitanya	Medium Learner
Sai Tejaswi Woonna	Medium Learner
Vishwas Choudhary	Medium Learner
Ananya Srivastava	Medium Learner
Rithik Yadav	Medium Learner
Shreyansh Tripathi	Medium Learner
Vansh Tyagi	Medium Learner
Yashveer Ahlawat	Medium Learner
Rishabh .	Medium Learner
Akshay Menon	Medium Learner
Harshit Jain	Medium Learner
Abhishek Sharma	Medium Learner
Suryansh Dubey	Medium Learner
Manish Kumar	Medium Learner
Tanish Dhingra	Medium Learner
Mukul Dev	Medium Learner
Anshul Gadia	Medium Learner
Akshay Parihar	Medium Learner
Sai Ram Aditya Kasarla	Medium Learner
Abhishek Dadhich	Medium Learner
Ayush Chauhan	Medium Learner
Sai Sri Mohnit Akula	Medium Learner
Pulagam Sanjay Reddy	Medium Learner
Aaditya Malhotra	Medium Learner
Vinit Yaduvanshi	Medium Learner

Khushi	Medium Learner
Sejal Kumari	Medium Learner
Uday Sushanth Malleboina	Medium Learner
Robin Yadav	Medium Learner
Sayantan .	Medium Learner
Harshita Rupani	Medium Learner
Himanshu	Medium Learner
Mayank Garg	Medium Learner
Bhargavi Sharma	Medium Learner
Gautam Shukla	Medium Learner
Vansh Gulati	Medium Learner
Abhinav .	Medium Learner
Harshit Saharan	Medium Learner
Ashish Saharia	Medium Learner
Priyanshu Garg	Medium Learner
Radhika Bhati	Medium Learner
Kushaal Adithya Kalluri	Medium Learner
Sahil Merothia	Medium Learner
Krish Sakhuja	Medium Learner
Rohit	Medium Learner
Deepanshu Aggarwal	Medium Learner
Manav Sharma	Medium Learner
Anmol Maheshwari	Medium Learner
Rishi Mahajan	Medium Learner
Rohit Rathi	Medium Learner
Manan Lakhotia	Medium Learner
Saransh Bhargava	Medium Learner
Rishabh Sharma	Medium Learner
Jayant	Medium Learner
Lakshya Bindal	Medium Learner
Akshit Gupta	Medium Learner
Harsh Singh	Medium Learner
Ritika Yadav	Medium Learner
Vaasu	Medium Learner
Apoorva Tyagi	Medium Learner
Vansh Shukla	Medium Learner
Priyanshi Srivastava	Medium Learner
Shruti	Medium Learner
Harsh Kumar	Medium Learner
Vikram Mittal	Medium Learner
Mishthi	Medium Learner
Anshul Yadav	Medium Learner
Udit Kumar	Medium Learner
Vivek Sherawat	Medium Learner
Aditya Tak	Medium Learner
Anjali	Medium Learner
Aakankshi	Medium Learner
Sujal Yadav	Medium Learner
Shivanshu -	Medium Learner
Anurag Anand	Medium Learner
Gaurish Bhatia	Medium Learner
Sanjeev Kumar	Medium Learner
Dishank Sharma	Medium Learner
Umesh	Medium Learner
Ashim Choudhary	Medium Learner
Harsh	Medium Learner
Keshav .	Medium Learner

Ishika Panwar	Medium Learner
K Sai Revanth Revanth	Medium Learner
Vaibhav Chauhan	Medium Learner
Man Mohit Yadav	Medium Learner
Gaurav Chaudhary	Medium Learner
Aayush Bhardwaj	Medium Learner
Vineet Kumar	Medium Learner
Deepanshi	Medium Learner
Nishant Kasana	Medium Learner
Umang Gupta	Medium Learner
Utplaksh Mishra	Medium Learner
Komal Sharma	Medium Learner
Sunny Bishnoi	Medium Learner
Kartik	Medium Learner
Himanshu .	Medium Learner
Vivek Sachdeva	Medium Learner
Tanish Somani	Medium Learner
Sugandha Choudhary	Medium Learner
Tushar Tripathi	Medium Learner
Charu Saini	Medium Learner
Harshad Kaushal	Medium Learner
Ashwikk Patel	Medium Learner
Rahul Sharma	Medium Learner
Harsh Sehrawat	Medium Learner
Dipanshu Srivastava	Medium Learner
Lakshay Nandwani	Medium Learner

13. Student Learning Categories

Learner Categories Summary

Learner Category	Number of Students
Advanced Learners	0
Medium Learners	295
Slow Learners	0

Student Learning Classification

Student Name	Category
Kanika	Medium Learner
SAGAR SINDHU	Medium Learner
DIVYANSHU BANSAL	Medium Learner
Ananya Aggarwal	Medium Learner
Karan Sharma	Medium Learner
Nihar Singla	Medium Learner
Abhinav Vuddagiri	Medium Learner
Aryan Pratap Singh	Medium Learner
Dhruv Sharma	Medium Learner
Aastha Singh	Medium Learner
Siddhika Sinha	Medium Learner
Saatvik Bhola	Medium Learner
Sapare Aravind	Medium Learner
Vishwajeet Tripathi	Medium Learner
Gopala Krishna Nuthakki	Medium Learner
Vemula Chetan Nihith	Medium Learner
Punit Yadav	Medium Learner
Sanskar Gupta	Medium Learner
jatin nunach	Medium Learner
Nirbhay	Medium Learner
GUNEET CHAWLA	Medium Learner
Raghvendra Singh Chouhan	Medium Learner
Siddharth Singh	Medium Learner
ANIL KUMAR	Medium Learner
Aman Gupta	Medium Learner
Daksh Verma	Medium Learner
Ayushman Raghav	Medium Learner
Pranav Raj	Medium Learner
Aditya Rastogi	Medium Learner
Nikhil Kumar Tomar	Medium Learner
Bhuwan Dahiya	Medium Learner
Piyush Garg	Medium Learner
Bhavesh Choudhary	Medium Learner
Purav Malik	Medium Learner
Shaleen Chordia	Medium Learner
Vishal Yadav	Medium Learner
Peehu Khandelwal	Medium Learner
Pryanshu Kumar	Medium Learner
Paras Khola	Medium Learner
Swapnadip Nandi	Medium Learner
CHAITANYA KALRA	Medium Learner

Shashank Gupta	Medium Learner
Anirudh Shukla	Medium Learner
Suryadeep .	Medium Learner
Manan Khandelwal	Medium Learner
Manav Saini	Medium Learner
Himanshu Chaturvedi	Medium Learner
Raghav Malik	Medium Learner
Archie Khubnani	Medium Learner
Manav	Medium Learner
Shivam Purohit	Medium Learner
Ritika Gupta	Medium Learner
Ashish Ranjan	Medium Learner
Siddhant Kalla	Medium Learner
Batchu Ratna Lahari	Medium Learner
Nishant Luhera	Medium Learner
Vidyansh Raj Gupta	Medium Learner
Monika	Medium Learner
Nakshatra Mittal	Medium Learner
Manavendra Singh	Medium Learner
Raj Kumar Shrivas	Medium Learner
Sanya Goel	Medium Learner
Likhit Sagar Gajja	Medium Learner
Sarthak Gupta	Medium Learner
Jasmine Sindhu	Medium Learner
Anirudh Dattu	Medium Learner
Himanshu Mohanty	Medium Learner
Rohan Dhingra	Medium Learner
Akaash Gupta Vandanapu	Medium Learner
Abhay Rajesh Shah	Medium Learner
Lalit Kumar	Medium Learner
Naman Sharma	Medium Learner
ROHIT YADAV	Medium Learner
Aryashrestha Sagar	Medium Learner
Aryyan Ahlawat	Medium Learner
BHAVUK	Medium Learner
Rongali Aryan	Medium Learner
Vikas Choudhary	Medium Learner
Muskan Yadav	Medium Learner
E Umesh	Medium Learner
Mitnapure Prasad Sharad	Medium Learner
Basireddy Nithishreddy	Medium Learner
Chinmay Srivastava	Medium Learner
Sheena Mittal	Medium Learner
Akshay Katoch	Medium Learner
Aakarsh Purwar	Medium Learner
Akshaya Velumuri	Medium Learner
Manasvi .	Medium Learner
Mayank Pratap Singh	Medium Learner
Aadit Arora	Medium Learner
Pranav Kanumuri	Medium Learner
Raghav Arora	Medium Learner
YAMA LALITHA SAI MADHURI	Medium Learner
Prashant Kumar	Medium Learner
Rudra Gupta	Medium Learner
Maitri Sharma	Medium Learner
Archit Prasher	Medium Learner
RAGHUVANSH SINGH PARMAR	Medium Learner

Viresh Chauhan	Medium Learner
Aditya Agarwal	Medium Learner
Kartik Mehta	Medium Learner
Daksh Goel	Medium Learner
Akshay Korrapati	Medium Learner
Ruchi Verma	Medium Learner
Daksh	Medium Learner
Vidhika Mangla	Medium Learner
Bhumika	Medium Learner
Bhawna	Medium Learner
Govind Madhav Sharma	Medium Learner
Ankur Singh	Medium Learner
Ratul Pal	Medium Learner
Vaibhav Arora	Medium Learner
Nidamanuri Bhargava Srinivas	Medium Learner
Garv Garg	Medium Learner
Saksham Pandla	Medium Learner
Zahra Rakhshan	Medium Learner
Udit Chauhan	Medium Learner
Divas Sharma	Medium Learner
Anurag Godara	Medium Learner
Gaurangi	Medium Learner
Siddhant Ashwary Tiwari	Medium Learner
Priyansh Arora	Medium Learner
Ishika Kochhar	Medium Learner
Lakkshya Gupta	Medium Learner
MOHAK GUPTA	Medium Learner
Aditya Bansal	Medium Learner
PAVAN THRINATH KALVAKOTA	Medium Learner
Namrata DHINGRA	Medium Learner
Jatin Kumar Phogat	Medium Learner
Abhinav Sharma	Medium Learner
Sohan Sen	Medium Learner
Krishnansh Garg	Medium Learner
Parag Garg	Medium Learner
Yash Arora	Medium Learner
Saurabh	Medium Learner
Mridul Singh	Medium Learner
Utkarsh Tonk	Medium Learner
RISHIT ABHILASH	Medium Learner
Shivanshi Goel	Medium Learner
Hardik Pandey	Medium Learner
Anup Kumar	Medium Learner
Nishtha Jain	Medium Learner
Gagan Singhal	Medium Learner
Ayushi Singh	Medium Learner
Phani Harshith Kotturu	Medium Learner
Yogesh Sharma	Medium Learner
Shradha Aggarwal	Medium Learner
Hemant kumar	Medium Learner
Divyansh verma	Medium Learner
Suraj	Medium Learner
Nishant	Medium Learner
Ankit Rathi	Medium Learner
Bhomik Tomar	Medium Learner
Vidushi Saxena	Medium Learner
Divyansh Verma	Medium Learner

Chetan Sharma	Medium Learner
Prakhar Kumar Srivastava	Medium Learner
B Anirudh	Medium Learner
Aranav Kumar	Medium Learner
Ayush Sengar	Medium Learner
Nikhil Kumar	Medium Learner
Vedansh Kumawat	Medium Learner
DAKSHI ARORA	Medium Learner
Anushka mishra	Medium Learner
Diya Rawal	Medium Learner
Deepanshu Mehlawat	Medium Learner
Kashish Dagar	Medium Learner
Anant Singh	Medium Learner
Anant Upadhiyay	Medium Learner
Anusha Singh	Medium Learner
Gourav Sharma	Medium Learner
Payal Dabas	Medium Learner
Yash Vardhan Kasana	Medium Learner
Anika Sharma	Medium Learner
Jatin Singh	Medium Learner
Yash Sharma	Medium Learner
Astha Rai	Medium Learner
Meenakshi Kamakolanu	Medium Learner
Jashan Kamboj	Medium Learner
Suryansh Sharma	Medium Learner
Mohit Kalwar	Medium Learner
Kushagra Gangwar	Medium Learner
Divyam Verma	Medium Learner
Shubhangi Sinha	Medium Learner
Ayush Gurjar	Medium Learner
Shreya Gupta	Medium Learner
Gautam Jain	Medium Learner
Boppana Chaitanya	Medium Learner
Sai Tejaswi Woonna	Medium Learner
Vishwas Choudhary	Medium Learner
Ananya Srivastava	Medium Learner
Rithik Yadav	Medium Learner
Shreyansh Tripathi	Medium Learner
Vansh Tyagi	Medium Learner
Yashveer Ahlawat	Medium Learner
Rishabh .	Medium Learner
Akshay Menon	Medium Learner
Harshit Jain	Medium Learner
Abhishek Sharma	Medium Learner
Suryansh Dubey	Medium Learner
Manish Kumar	Medium Learner
Tanish Dhingra	Medium Learner
Mukul Dev	Medium Learner
Anshul Gadia	Medium Learner
Akshay Parihar	Medium Learner
Sai Ram Aditya Kasarla	Medium Learner
Abhishek Dadhich	Medium Learner
Ayush Chauhan	Medium Learner
Sai Sri Mohnit Akula	Medium Learner
Pulagam Sanjay Reddy	Medium Learner
Aaditya Malhotra	Medium Learner
Vinit Yaduvanshi	Medium Learner

Khushi	Medium Learner
Sejal Kumari	Medium Learner
Uday Sushanth Malleboina	Medium Learner
Robin Yadav	Medium Learner
Sayantan .	Medium Learner
Harshita Rupani	Medium Learner
Himanshu	Medium Learner
Mayank Garg	Medium Learner
Bhargavi Sharma	Medium Learner
Gautam Shukla	Medium Learner
Vansh Gulati	Medium Learner
Abhinav .	Medium Learner
Harshit Saharan	Medium Learner
Ashish Saharia	Medium Learner
Priyanshu Garg	Medium Learner
Radhika Bhati	Medium Learner
Kushaal Adithya Kalluri	Medium Learner
Sahil Merothia	Medium Learner
Krish Sakhuja	Medium Learner
Rohit	Medium Learner
Deepanshu Aggarwal	Medium Learner
Manav Sharma	Medium Learner
Anmol Maheshwari	Medium Learner
Rishi Mahajan	Medium Learner
Rohit Rathi	Medium Learner
Manan Lakhotia	Medium Learner
Saransh Bhargava	Medium Learner
Rishabh Sharma	Medium Learner
Jayant	Medium Learner
Lakshya Bindal	Medium Learner
Akshit Gupta	Medium Learner
Harsh Singh	Medium Learner
Ritika Yadav	Medium Learner
Vaasu	Medium Learner
Apoorva Tyagi	Medium Learner
Vansh Shukla	Medium Learner
Priyanshi Srivastava	Medium Learner
Shruti	Medium Learner
Harsh Kumar	Medium Learner
Vikram Mittal	Medium Learner
Mishthi	Medium Learner
Anshul Yadav	Medium Learner
Udit Kumar	Medium Learner
Vivek Sherawat	Medium Learner
Aditya Tak	Medium Learner
Anjali	Medium Learner
Aakankshi	Medium Learner
Sujal Yadav	Medium Learner
Shivanshu -	Medium Learner
Anurag Anand	Medium Learner
Gaurish Bhatia	Medium Learner
Sanjeev Kumar	Medium Learner
Dishank Sharma	Medium Learner
Umesh	Medium Learner
Ashim Choudhary	Medium Learner
Harsh	Medium Learner
Keshav .	Medium Learner

Ishika Panwar	Medium Learner
K Sai Revanth Revanth	Medium Learner
Vaibhav Chauhan	Medium Learner
Man Mohit Yadav	Medium Learner
Gaurav Chaudhary	Medium Learner
Aayush Bhardwaj	Medium Learner
Vineet Kumar	Medium Learner
Deepanshi	Medium Learner
Nishant Kasana	Medium Learner
Umang Gupta	Medium Learner
Utplaksh Mishra	Medium Learner
Komal Sharma	Medium Learner
Sunny Bishnoi	Medium Learner
Kartik	Medium Learner
Himanshu .	Medium Learner
Vivek Sachdeva	Medium Learner
Tanish Somani	Medium Learner
Sugandha Choudhary	Medium Learner
Tushar Tripathi	Medium Learner
Charu Saini	Medium Learner
Harshad Kaushal	Medium Learner
Ashwikk Patel	Medium Learner
Rahul Sharma	Medium Learner
Harsh Sehrawat	Medium Learner
Dipanshu Srivastava	Medium Learner
Lakshay Nandwani	Medium Learner

14. Actions taken for weak students

- NA

15. Student Feedback

Quantitative Feedback:

Average Rating: 4.20/5

Qualitative Feedback:

na

16. Faculty Course Review

na

DIP Quiz -2022 Batch Nov 2024

B *I* U 🔗 X̶

Form description

This form is automatically collecting emails from all respondents. Change settings

All Questions are compulsory

Description (optional)

Choose the correct statement: 🖼️   ⦿ Multiple choice ▾

B *I* U 🔗 X̶

○ Statement 1: Erosion shrinks the connected sets of 1s of a binary image   ✕

○ Statement 2: Dilation shrinks the connected sets of 1s of a binary image   ✕

○ Statement 3: Dilation expands the connected sets of 1s of a binary image.   ✕

○ Statement 4: Erosion expands the connected sets of 1s of a binary image.   ✕

○ Statement 1 and 2   ✕

○ Statement 1 and 3   ✓   ✕

○ Statement 2 and 4   ✕

○ Add option or add "Other"

☑ Answer key (2 points)   📋   🗑️   Required ⬤   ⋮

In the following picture which one is the correct match between the figure and operation

Multiple choice
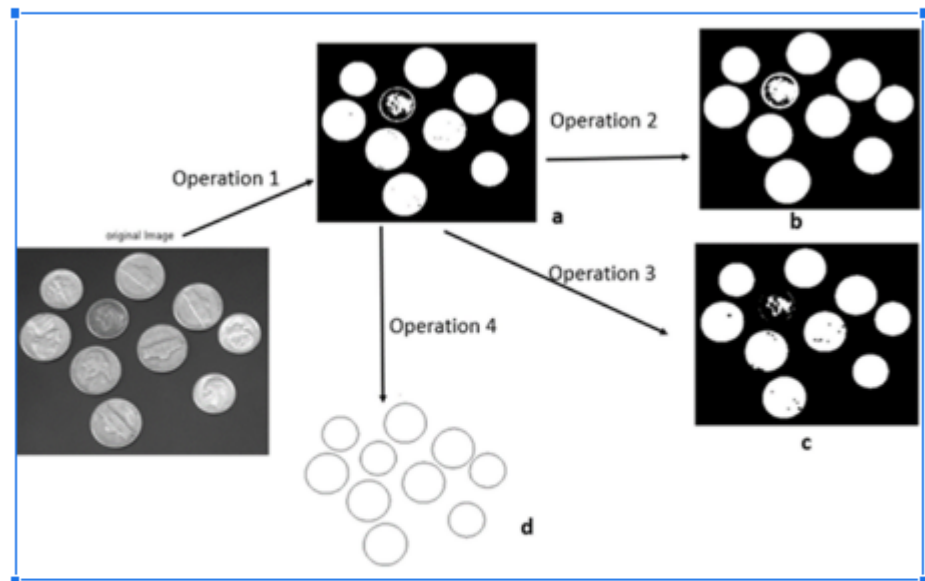
○ Operation 1: Segmentation, Operation2: Dilation, Operation 3: Erosion, Operation 4: ... ✓ ✕

○ Operation 1: Segmentation, Operation2: Erosion, Operation 3: Dilation, Operation 4: Region... ✕

○ Operation 1: Region/Hole Filling, Operation2: Dilation, Operation 3: Erosion, Operation 4: S... ✕

○ Operation 1: Region/Hole Filling, Operation2: Erosion, Operation 3: Dilation, Operation 4: S... ✕

The original image is shown in extreme left of the Figure. Match the correct Operation with that of the correct Output Image obtained after applying an operation. That is, what output will be produced when operation given in column 2 will be performed on Original image. Match the correct option.

☐ ◉ Multiple choice ▾

	Operation		Output Image
Original Image	A.	Closing	1
	B.	Erosion	2
	C.	Opening	3
	D.	Dilation	4

○ A- 3, B-1, C-4, D-2 ✓ ✕

○ A- 2, B-1, C-4, D-3 ✕

○ A- 1, B-2, C-3, D-4 ✕

○ A- 3, B-4, C-1, D-2 ✕

Question ☐ ◉ Multiple choice ▾

Principle sources of noise arise during image

a. destruction

b. degradation

c. restoration

d. acquisition

○ a ✕

○ b ✕

○ c ✕

○ d ✓ ✕

In the following figure, original image (top left) was operated using filter. Choose the correct statement

Multiple choice

- ○ A: Low pass filter of radius =30, B= Low pass filter of radius =15 and C=Low pass filter of r... ✕
- ○ A: High pass filter of radius =5, B=High pass filter of radius =15 and C=High pass filter of r... ✕
- ○ A: Low pass filter of radius =5, B= Low pass filter of radius =15 and C=Low pass filt... ✓ ✕
- ○ A: High pass filter of radius =30, B=High pass filter of radius =15 and C=High pass filter of ... ✕

Following are the factors that affects the suitability of the histogram for guiding the choice of the threshold. Choose the incorrect option

Multiple choice

B *I* U ⊝ ⏇

- ○ the separation between peaks; ✕
- ○ the noise content in the image; ✕
- ○ the relative size of objects and background; ✕
- ○ the uniformity of the illumination and reflectance ✕
- ○ All of them are correct ✕
- ○ All of them are incorrect ✓ ✕
- ○ Add option or add "Other"

Which of the following shows three basic types of functions used frequently for image enhancement?

Multiple choice

B I U ⊖ ⊼

- ○ Linear, logarithmic and inverse law ✕
- ○ Power law, logarithmic and inverse law ✓ ✕
- ○ Linear, logarithmic and power law ✕
- ○ Linear, exponential and inverse law ✕
- ○ Add option or add "Other"

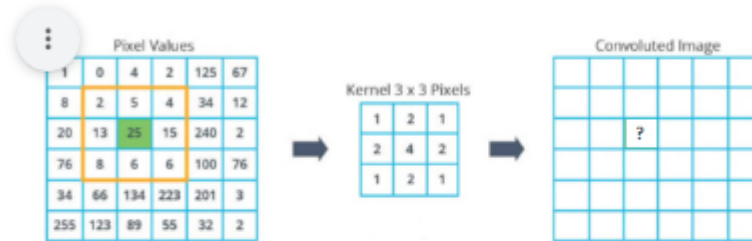Structuring elements runs over image's

Multiple choice

B I U ⊖ ⊼

- ○ rows ✕
- ○ coloumns ✕
- ○ Every element ✓ ✕
- ○ Edges ✕
- ○ Add option or add "Other"

Image patch (under orange square) was convolved with the 3 X 3 kernel shown below in the figure. What will be the resultant output (marked '?' in the image shown) in the convoluted image

B *I* U ⊖ ✗

Pixel Values

1	0	4	2	125	67
8	2	5	4	34	12
20	13	25	15	240	2
76	8	6	6	100	76
34	66	134	223	201	3
255	123	89	55	32	2

Kernel 3 x 3 Pixels

1	2	1
2	4	2
1	2	1

Convoluted Image

?

○ 190 ✗

○ 198 ✓ ✗

○ 185 ✗

○ 180 ✗

○ Add option or add "Other"

For the morphological operations, which of the following statement is true

Multiple choice

B *I* U ⊖ ✗

○ Opening of image A by element B includes the dilation of A by B followed by the erosion o... ✗

○ Closing of image A by element B includes the erosion of A by B followed by the dilation of ... ✗

○ Opening eliminate the small holes and fill the gaps. ✗

○ Closing breaks the narrow isthmuses and eliminates the thin protrusions. ✗

○ All statements are false ✓ ✗

○ All statements are true ✗

○ Add option or add "Other"

Using the morphological operations, the boundary extraction can be performed by:

⊡ ● Multiple choice ▾

○ Dilation of image by structuring element followed by subtraction of the result from the ori... ✕

○ Erosion of image by structuring element followed by addition of the result with the original... ✕

○ Erosion of image by structuring element followed by dilation of the result with the original ... ✕

○ Dilation of image by structuring element followed by erosion of the result with the original ... ✕

○ None of the options ✓ ✕

The difference between Sampling and Quantization: Chose the correct option

⊡ ● Multiple choice ▾

○ sampling rate determines the spatial resolution of the digitized image, while the qu... ✓ ✕

○ sampling rate determines   the number of grey levels in the digitized image, while the quan... ✕

○ Both determines the special resolution of the image ✕

○ No statement is correct ✕

The non linear spatial filters whose response is based on ordering of the pixels contained is called _____|

⊡ ● Multiple choice ▾

B *I* U̲ ⊐ ✗

○ Box filter ✕

○ Gaussian Filter ✕

○ Order-statistic filter ✓ ✕

○ Laplacian Filter ✕

Lets you have a *M X N* pixels image, where *M=N=128*. This image contains *L=8* gray level with the following distribution (see fig 1).

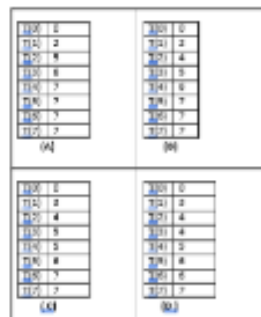**From Fig 2:** Find the gray scale transformation S=T(R) that yields a uniform Histogram.

Fig 1

gray levels r_k	n_k
0	1020
1	2040
2	5023
3	3201
4	1063
5	734
6	604
7	562
	16384

Fig 2

A

B ✓

C

D