



## **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.

<b>16</b>	Interventions made for slow performers and advanced learners, highlighting initiatives taken for student improvements (retest, resubmissions etc.)
<b>17</b>	End Semester Question papers with sample solutions
<b>18</b>	Detail of Marks in all components up to the End Semester
<b>19</b>	Attendance Report
<b>20</b>	Final record of Results (including the grades)
<b>21</b>	Analyzing Direct Feedback received on Course Outcomes
<b>22</b>	CO Attainment Measurement Analysis
<b>23</b>	Interventions made for slow performers and advanced learners, highlighting initiatives taken for student improvements (retest, resubmissions etc.)
<b>24</b>	End Semester Question papers with sample solutions
<b>25</b>	Feedback (class committee or otherwise) and corrective actions (if any)
<b>26</b>	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)
<b>27</b>	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

There is a high demand of professionals knowing image processing and related field of studies, in the industry. There are tons of interesting applications which require capturing, storing and processing digital images – e.g. automatic face recognition from images, medical image processing, automated robotic movements, surveillance, document processing etc. With the popularity of social media and consumer electronic devices like smart phone, millions of images are being captured and shared on a daily basis on the internet. This has opened up the horizon of developing smart applications involving images for a better quality of service. In view of this, the Digital Image Processing course is designed to give the students an overview of what digital images are, and how they are captured and processed. The course contains hands-on sessions to be conducted using open-source tools. This will help the students to practice the theoretical concepts learned during lecture sessions. Upon successful completion of the course, the students should be able to write programs for capturing, manipulating, and processing digital images.

## 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

## 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	Attendance	Unique Id.	Grading	Student Name
1	80.56	220C2030054	C+	Kanika
2	80.56	220C2030062	B	SAGAR SINDHU
3	97.22	220C2030065	B	DIVYANSHU BANSAL
4	97.22	220C2030068	B	Ananya Aggarwal
5	83.33	220C2030070	C	Karan Sharma
6	86.11	220C2030071	B+	Nihar Singla
7	83.33	220C2030073	B	Abhinav Vuddagiri
8	77.78	220C2030074	B	Aryan Pratap Singh
9	75	220C2030076	B+	Dhruv Sharma
10	83.33	220C2030077	B+	Aastha Singh
11	88.89	220C2030078	B+	Siddhika Sinha
12	77.78	220C2030081	B+	Saatvik Bhola
13	94.44	220C2030086	C	Sapare Aravind
14	91.67	220C2030087	B+	Vishwajeet Tripathi
15	83.33	220C2030091	B+	Gopala Krishna Nuthakki
16	86.11	220C2030093	B+	Vemula Chetan Nihith
17	83.33	220C2030096	C	Punit Yadav
18	91.67	220C2030098	B	Sanskar Gupta
19	94.44	220C2030099	C	jatin nunach
20	97.22	220C2030102	B+	Nirbhay
21	77.78	220C2030105	C+	GUNEET CHAWLA
22	91.67	220C2030108	B	Raghvendra Singh Chouhan
23	83.33	220C2030109	B+	Siddharth Singh
24	83.33	220C2030111	B	ANIL KUMAR
25	94.44	220C2030114	A	Aman Gupta
26	80.56	220C2030115	C+	Daksh Verma
27	88.89	220C2030116	B	Ayushman Raghav
28	88.89	220C2030118	B+	Pranav Raj
29	86.11	220C2030119	B	Aditya Rastogi
30	91.67	220C2030120	A	Nikhil Kumar Tomar
31	86.11	220C2030127	B	Bhuwan Dahiya
32	91.67	220C2030181	B	Piyush Garg
33	94.44	220C2030185	B	Bhaves Choudhary
34	91.67	220C2030210	B	Purav Malik
35	91.67	220C2030223	B	Shaleen Chordia
36	91.67	220C2030245	C+	Vishal Yadav
37	86.11	220C2030247	C+	Peehu Khandelwal
38	88.89	220C2030248	A	Pryanshu Kumar
39	80.56	220C2030249	B	Paras Khola
40	100	220C2030251	B	Swapnadip Nandi
41	91.67	220C2030253	B	CHAITANYA KALRA
42	91.67	220C2030256	C	Shashank Gupta
43	80.56	220C2030257	C+	Anirudh Shukla
44	83.33	220C2030258	B+	Suryadeep .
45	86.11	220C2030267	B	Manan Khandelwal
46	91.67	220C2030283	B	Manav Saini
47	86.11	220C2030284	C+	Himanshu Chaturvedi
48	94.44	220C2030285	C+	Raghav Malik
49	86.11	220C2030288	B	Archie Khubnani
50	94.44	220C2030293	A	Manav
51	86.11	220C2030305	B+	Shivam Purohit

52	88.89	220C2030311	B	Ritika Gupta
53	88.89	220C2030326	A	Ashish Ranjan
54	88.89	220C2030333	B+	Siddhant Kalla
55	80.77	220C2030002	A	Batchu Ratna Lahari
56	76.92	220C2030003	A	Nishant Luhera
57	82.69	220C2030006	C+	Vidyansh Raj Gupta
58	90.38	220C2030007	B	Monika
59	65.38	220C2030008	C+	Nakshatra Mittal
60	94.23	220C2030009	A	Manavendra Singh
61	92.31	220C2030010	C	Raj Kumar Shrivias
62	88.46	220C2030011	B+	Sanya Goel
63	76.92	220C2030012	A	Likhith Sagar Gajja
64	80.77	220C2030016	A+	Sarthak Gupta
65	78.85	220C2030017	C+	Jasmine Sindhu
66	88.46	220C2030018	A+	Anirudh Dattu
67	84.62	220C2030019	C+	Himanshu Mohanty
68	82.69	220C2030020	C+	Rohan Dhingra
69	82.69	220C2030022	A	Akaash Gupta Vandanapu
70	84.62	220C2030023	A+	Abhay Rajesh Shah
71	82.69	220C2030024	B	Lalit Kumar
72	86.54	220C2030025	B+	Naman Sharma
73	86.54	220C2030026	C	ROHIT YADAV
74	84.62	220C2030027	B+	Aryashrestha Sagar
75	78.85	220C2030028	B	Aryyan Ahlawat
76	92.31	220C2030029	B	BHAVUK
77	80.77	220C2030030	B+	Rongali Aryan
78	78.85	220C2030032	B	Vikas Choudhary
79	90.38	220C2030033	C+	Muskan Yadav
80	78.85	220C2030036	B	E Umesh
81	84.62	220C2030038	B	Mitnapure Prasad Sharad
82	78.85	220C2030044	B	Basireddy Nithishreddy
83	90.38	220C2030045	B	Chinmay Srivastava
84	84.62	220C2030046	A	Sheena Mittal
85	82.69	220C2030047	B	Akshay Katoch
86	84.62	220C2030048	A+	Aakarsh Purwar
87	84.62	220C2030049	B	Akshaya Velumuri
88	86.54	220C2030052	A	Manasvi .
89	80.77	220C2030053	A	Mayank Pratap Singh
90	61.54	220C2030055	C	Aadit Arora
91	75	220C2030058	C+	Pranav Kanumuri
92	82.69	220C2030060	A+	Raghav Arora
93	86.54	220C2030067	B	YAMA LALITHA SAI MADHURI
94	82.69	220C2030075	C	Prashant Kumar
95	75	220C2030083	B	Rudra Gupta
96	84.62	220C2030090	B+	Maitri Sharma
97	94.23	220C2030100	B+	Archit Prasher
98	98.08	220C2030110	B+	RAGHUVANSH SINGH PARMAR
99	78.85	220C2030112	A+	Viresh Chauhan
100	86.54	220C2030170	B+	Aditya Agarwal
101	94.23	220C2030178	B+	Kartik Mehta
102	82.69	220C2030200	B+	Daksh Goel
103	75	220C2030224	B+	Akshay Korrapati
104	82.69	220C2030242	B	Ruchi Verma



105	92.31	220C2030246	B+	Daksh
106	90.38	220C2030252	B+	Vidhika Mangla
107	84.62	220C2030280	B+	Bhumika
108	86.54	220C2030281	B	Bhawna
109	78.85	220C2030299	C	Govind Madhav Sharma
110	80.77	220C2030300	C	Ankur Singh
111	81.25	220C2030015	B	Ratul Pal
112	81.25	220C2030021	F	Vaibhav Arora
113	81.25	220C2030031	B+	Nidamanuri Bhargava Srinivas
114	78.13	220C2030035	A	Garv Garg
115	75	220C2030072	B+	Saksham Pandla
116	84.38	220C2030107	A	Zahra Rakhshan
117	78.13	220C2030113	C+	Udit Chauhan
118	87.5	220C2030117	B+	Divas Sharma
119	84.38	220C2030121	B+	Anurag Godara
120	96.88	220C2030122	B	Gaurangi
121	84.38	220C2030123	A+	Siddhant Ashwary Tiwari
122	93.75	220C2030124	B+	Priyansh Arora
123	78.13	220C2030125	A	Ishika Kochhar
124	93.75	220C2030126	A+	Lakshya Gupta
125	87.5	220C2030128	C+	MOHAK GUPTA
126	78.13	220C2030129	B	Aditya Bansal
127	87.5	220C2030130	A	PAVAN THRINATH KALVAKOTA
128	93.75	220C2030131	B	Namrata DHINGRA
129	93.75	220C2030132	B	Jatin Kumar Phogat
130	87.5	220C2030133	B	Abhinav Sharma
131	90.63	220C2030134	B	Sohan Sen
132	87.5	220C2030136	C+	Krishnansh Garg
133	90.63	220C2030138	A+	Parag Garg
134	90.63	220C2030139	B	Yash Arora
135	84.38	220C2030140	B	Saurabh
136	81.25	220C2030141	B	Mridul Singh
137	81.25	220C2030143	B+	Utkarsh Tonk
138	78.13	220C2030145	B	RISHIT ABHILASH
139	78.13	220C2030147	C+	Shivanshi Goel
140	84.38	220C2030148	C+	Hardik Pandey
141	93.75	220C2030149	D	Anup Kumar
142	87.5	220C2030150	A+	Nishtha Jain
143	87.5	220C2030151	A+	Gagan Singhal
144	81.25	220C2030152	B+	Ayushi Singh
145	87.5	220C2030154	B	Phani Harshith Kotturu
146	78.13	220C2030155	B	Yogesh Sharma
147	90.63	220C2030157	B+	Shradha Aggarwal
148	81.25	220C2030159	B	Hemant kumar
149	87.5	220C2030160	C+	Divyansh verma
150	90.63	220C2030161	C+	Suraj
151	96.88	220C2030163	B	Nishant
152	96.88	220C2030164	B	Ankit Rathi
153	84.38	220C2030165	A	Bhomik Tomar
154	81.25	220C2030167	A	Vidushi Saxena
155	87.5	220C2030168	C+	Divyansh Verma
156	87.5	220C2030169	C	Chetan Sharma

157	84.38	220C2030171	B	Prakhar Kumar Srivastava
158	81.25	220C2030174	B	B Anirudh
159	84.38	220C2030175	C+	Aranav Kumar
160	87.5	220C2030176	B	Ayush Sengar
161	75	220C2030177	C+	Nikhil Kumar
162	81.25	220C2030179	B	Vedansh Kumawat
163	93.75	220C2030180	A	DAKSHI ARORA
164	81.25	220C2030213	B+	Anushka mishra
165	75	220C2030228	A	Diya Rawal
166	96.88	220C2030255	A	Deepanshu Mehlawat
167	84.38	220C2030259	C	Kashish Dagar
168	84.38	220C2030260	B	Anant Singh
169	78.13	220C2030261	C+	Anant Upadhiyay
170	93.75	220C2030263	C+	Anusha Singh
171	84.38	220C2030292	B	Gourav Sharma
172	90.16	220C2030004	B	Payal Dabas
173	90.16	220C2030005	C	Yash Vardhan Kasana
174	95.08	220C2030014	A+	Anika Sharma
175	86.89	220C2030037	C	Jatin Singh
176	90.16	220C2030051	B	Yash Sharma
177	88.52	220C2030057	B	Astha Rai
178	96.72	220C2030059	A+	Meenakshi Kamakolanu
179	93.44	220C2030079	C+	Jashan Kamboj
180	88.52	220C2030080	C+	Suryansh Sharma
181	91.8	220C2030082	B+	Mohit Kalwar
182	91.8	220C2030089	B	Kushagra Gangwar
183	86.89	220C2030142	C+	Divyam Verma
184	91.8	220C2030153	B+	Shubhangi Sinha
185	96.72	220C2030156	B+	Ayush Gurjar
186	98.36	220C2030184	A+	Shreya Gupta
187	90.16	220C2030186	B	Gautam Jain
188	81.97	220C2030187	A	Boppana Chaitanya
189	96.72	220C2030189	A+	Sai Tejaswi Woonna
190	93.44	220C2030190	B	Vishwas Choudhary
191	81.97	220C2030191	B	Ananya Srivastava
192	93.44	220C2030192	B	Rithik Yadav
193	93.44	220C2030193	C+	Shreyansh Tripathi
194	95.08	220C2030194	C+	Vansh Tyagi
195	78.69	220C2030195	C+	Yashveer Ahlawat
196	83.61	220C2030196	B	Rishabh .
197	91.8	220C2030197	B	Akshay Menon
198	91.8	220C2030198	A	Harshit Jain
199	93.44	220C2030199	B+	Abhishek Sharma
200	81.97	220C2030201	C	Suryansh Dubey
201	86.89	220C2030202	C	Manish Kumar
202	83.61	220C2030203	C+	Tanish Dhingra
203	86.89	220C2030204	B	Mukul Dev
204	91.8	220C2030207	C+	Anshul Gadia
205	93.44	220C2030208	C	Akshay Parihar
206	88.52	220C2030209	B+	Sai Ram Aditya Kasarla
207	91.8	220C2030212	C+	Abhishek Dadhich
208	83.61	220C2030215	B	Ayush Chauhan
209	90.16	220C2030216	A+	Sai Sri Mohnit Akula

210	96.72	220C2030218	A+	Pulagam Sanjay Reddy
211	93.44	220C2030219	B	Aaditya Malhotra
212	86.89	220C2030222	B	Vinit Yaduvanshi
213	96.72	220C2030225	B+	Khushi
214	91.8	220C2030227	A	Sejal Kumari
215	100	220C2030229	A+	Uday Sushanth Malleboina
216	96.72	220C2030230	B+	Robin Yadav
217	95.08	220C2030231	A+	Sayantan .
218	85.25	220C2030232	C+	Harshita Rupani
219	96.72	220C2030234	B	Himanshu
220	95.08	220C2030235	B+	Mayank Garg
221	93.44	220C2030237	B+	Bhargavi Sharma
222	81.97	220C2030239	C+	Gautam Shukla
223	95.08	220C2030241	B	Vansh Gulati
224	96.72	220C2030243	C+	Abhinav .
225	77.05	220C2030262	B	Harshit Saharan
226	96.72	220C2030268	B	Ashish Saharia
227	95.08	220C2030269	C+	Priyanshu Garg
228	91.8	220C2030270	A+	Radhika Bhati
229	95.08	220C2030272	A+	Kushaal Adithya Kalluri
230	85.25	220C2030273	C+	Sahil Merothia
231	88.52	220C2030274	C	Krish Sakhuja
232	93.44	220C2030276	B	Rohit
233	93.44	220C2030279	A+	Deepanshu Aggarwal
234	75.41	220C2030001	C	Manav Sharma
235	78.69	220C2030034	B	Anmol Maheshwari
236	86.89	220C2030040	C+	Rishi Mahajan
237	77.05	220C2030050	B	Rohit Rathi
238	80.33	220C2030063	B+	Manan Lakhotia
239	86.89	220C2030069	B+	Saransh Bhargava
240	80.33	220C2030085	C+	Rishabh Sharma
241	77.05	220C2030101	C	Jayant
242	90.16	220C2030106	B	Lakshya Bindal
243	88.52	220C2030144	B+	Akshit Gupta
244	77.05	220C2030172	C	Harsh Singh
245	95.08	220C2030182	B+	Ritika Yadav
246	78.69	220C2030183	C+	Vaasu
247	75.41	220C2030188	C	Apoorva Tyagi
248	75.41	220C2030205	B	Vansh Shukla
249	86.89	220C2030211	B+	Priyanshi Srivastava
250	88.52	220C2030217	B	Shruti
251	90.16	220C2030233	B	Harsh Kumar
252	75.41	220C2030250	A	Vikram Mittal
253	93.44	220C2030254	B+	Mishthi
254	88.52	220C2030264	B	Anshul Yadav
255	81.97	220C2030265	B	Udit Kumar
256	88.52	220C2030266	B+	Vivek Sherawat
257	86.89	220C2030277	A+	Aditya Tak
258	80.33	220C2030278	C+	Anjali
259	81.97	220C2030282	B	Aakankshi
260	91.8	220C2030287	B	Sujal Yadav
261	91.8	220C2030289	B+	Shivanshu -
262	81.97	220C2030290	B+	Anurag Anand
263	77.05	220C2030291	C	Gaurish Bhatia
264	86.89	220C2030294	B	Sanjeev Kumar

265	75.41	220C2030297	C	Dishank Sharma
266	88.52	220C2030301	B+	Umesh
267	95.08	220C2030302	B	Ashim Choudhary
268	85.25	220C2030303	C+	Harsh
269	85.25	220C2030304	B	Keshav .
270	88.52	220C2030306	B	Ishika Panwar
271	80.33	220C2030307	B+	K Sai Revanth Revanth
272	80.33	220C2030308	B	Vaibhav Chauhan
273	96.72	220C2030309	B	Man Mohit Yadav
274	78.69	220C2030310	C+	Gaurav Chaudhary
275	86.89	220C2030312	B+	Aayush Bhardwaj
276	90.16	220C2030313	B+	Vineet Kumar
277	90.16	220C2030314	A	Deepanshi
278	75.41	220C2030315	C+	Nishant Kasana
279	95.08	220C2030316	B	Umang Gupta
280	77.05	220C2030317	B+	Utplaksh Mishra
281	81.97	220C2030318	B+	Komal Sharma
282	81.97	220C2030319	B	Sunny Bishnoi
283	86.89	220C2030320	C	Kartik
284	90.16	220C2030321	A	Himanshu .
285	91.8	220C2030322	A	Vivek Sachdeva
286	78.69	220C2030323	B	Tanish Somani
287	83.61	220C2030324	C	Sugandha Choudhary
288	80.33	220C2030327	C+	Tushar Tripathi
289	88.52	220C2030328	B	Charu Saini
290	85.25	220C2030329	C+	Harshad Kaushal
291	91.8	220C2030330	B+	Ashwikk Patel
292	78.69	220C2030331	B+	Rahul Sharma
293	83.61	220C2030332	B	Harsh Sehwawat
294	83.61	220C2030334	A	Dipanshu Srivastava
295	91.8	220C2030336	A	Lakshay Nandwani

## 19. Attendance Report

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

54	88.89	220C2030333	B+	Siddhant Kalla
55	80.77	220C2030002	A	Batchu Ratna Lahari
56	76.92	220C2030003	A	Nishant Luhera
57	82.69	220C2030006	C+	Vidyansh Raj Gupta
58	90.38	220C2030007	B	Monika
59	65.38	220C2030008	C+	Nakshatra Mittal
60	94.23	220C2030009	A	Manavendra Singh
61	92.31	220C2030010	C	Raj Kumar Shrivias
62	88.46	220C2030011	B+	Sanya Goel
63	76.92	220C2030012	A	Likhith Sagar Gajja
64	80.77	220C2030016	A+	Sarthak Gupta
65	78.85	220C2030017	C+	Jasmine Sindhu
66	88.46	220C2030018	A+	Anirudh Dattu
67	84.62	220C2030019	C+	Himanshu Mohanty
68	82.69	220C2030020	C+	Rohan Dhingra
69	82.69	220C2030022	A	Akaash Gupta Vandanapu
70	84.62	220C2030023	A+	Abhay Rajesh Shah
71	82.69	220C2030024	B	Lalit Kumar
72	86.54	220C2030025	B+	Naman Sharma
73	86.54	220C2030026	C	ROHIT YADAV
74	84.62	220C2030027	B+	Aryashrestha Sagar
75	78.85	220C2030028	B	Aryyan Ahlawat
76	92.31	220C2030029	B	BHAVUK
77	80.77	220C2030030	B+	Rongali Aryan
78	78.85	220C2030032	B	Vikas Choudhary
79	90.38	220C2030033	C+	Muskan Yadav
80	78.85	220C2030036	B	E Umesh
81	84.62	220C2030038	B	Mitnapure Prasad Sharad
82	78.85	220C2030044	B	Basireddy Nithishreddy
83	90.38	220C2030045	B	Chinmay Srivastava
84	84.62	220C2030046	A	Sheena Mittal
85	82.69	220C2030047	B	Akshay Katoch
86	84.62	220C2030048	A+	Aakarsh Purwar
87	84.62	220C2030049	B	Akshaya Velumuri
88	86.54	220C2030052	A	Manasvi .
89	80.77	220C2030053	A	Mayank Pratap Singh
90	61.54	220C2030055	C	Aadit Arora
91	75	220C2030058	C+	Pranav Kanumuri
92	82.69	220C2030060	A+	Raghav Arora
93	86.54	220C2030067	B	YAMA LALITHA SAI MADHURI
94	82.69	220C2030075	C	Prashant Kumar
95	75	220C2030083	B	Rudra Gupta
96	84.62	220C2030090	B+	Maitri Sharma
97	94.23	220C2030100	B+	Archit Prasher
98	98.08	220C2030110	B+	RAGHUVANSH SINGH PARMAR
99	78.85	220C2030112	A+	Viresh Chauhan
100	86.54	220C2030170	B+	Aditya Agarwal
101	94.23	220C2030178	B+	Kartik Mehta
102	82.69	220C2030200	B+	Daksh Goel
103	75	220C2030224	B+	Akshay Korrapati
104	82.69	220C2030242	B	Ruchi Verma
105	92.31	220C2030246	B+	Daksh
106	90.38	220C2030252	B+	Vidhika Mangla
107	84.62	220C2030280	B+	Bhumika

108	86.54	220C2030281	B	Bhawna
109	78.85	220C2030299	C	Govind Madhav Sharma
110	80.77	220C2030300	C	Ankur Singh
111	81.25	220C2030015	B	Ratul Pal
112	81.25	220C2030021	F	Vaibhav Arora
113	81.25	220C2030031	B+	Nidamanuri Bhargava Srinivas
114	78.13	220C2030035	A	Garv Garg
115	75	220C2030072	B+	Saksham Pandla
116	84.38	220C2030107	A	Zahra Rakhshan
117	78.13	220C2030113	C+	Udit Chauhan
118	87.5	220C2030117	B+	Divas Sharma
119	84.38	220C2030121	B+	Anurag Godara
120	96.88	220C2030122	B	Gaurangi
121	84.38	220C2030123	A+	Siddhant Ashwary Tiwari
122	93.75	220C2030124	B+	Priyansh Arora
123	78.13	220C2030125	A	Ishika Kochhar
124	93.75	220C2030126	A+	Lakshya Gupta
125	87.5	220C2030128	C+	MOHAK GUPTA
126	78.13	220C2030129	B	Aditya Bansal
127	87.5	220C2030130	A	PAVAN THRINATH KALVAKOTA
128	93.75	220C2030131	B	Namrata DHINGRA
129	93.75	220C2030132	B	Jatin Kumar Phogat
130	87.5	220C2030133	B	Abhinav Sharma
131	90.63	220C2030134	B	Sohan Sen
132	87.5	220C2030136	C+	Krishnansh Garg
133	90.63	220C2030138	A+	Parag Garg
134	90.63	220C2030139	B	Yash Arora
135	84.38	220C2030140	B	Saurabh
136	81.25	220C2030141	B	Mridul Singh
137	81.25	220C2030143	B+	Utkarsh Tonk
138	78.13	220C2030145	B	RISHIT ABHILASH
139	78.13	220C2030147	C+	Shivanshi Goel
140	84.38	220C2030148	C+	Hardik Pandey
141	93.75	220C2030149	D	Anup Kumar
142	87.5	220C2030150	A+	Nishtha Jain
143	87.5	220C2030151	A+	Gagan Singhal
144	81.25	220C2030152	B+	Ayushi Singh
145	87.5	220C2030154	B	Phani Harshith Kotturu
146	78.13	220C2030155	B	Yogesh Sharma
147	90.63	220C2030157	B+	Shradha Aggarwal
148	81.25	220C2030159	B	Hemant kumar
149	87.5	220C2030160	C+	Divyansh verma
150	90.63	220C2030161	C+	Suraj
151	96.88	220C2030163	B	Nishant
152	96.88	220C2030164	B	Ankit Rathi
153	84.38	220C2030165	A	Bhomik Tomar
154	81.25	220C2030167	A	Vidushi Saxena
155	87.5	220C2030168	C+	Divyansh Verma
156	87.5	220C2030169	C	Chetan Sharma
157	84.38	220C2030171	B	Prakhar Kumar Srivastava
158	81.25	220C2030174	B	B Anirudh
159	84.38	220C2030175	C+	Aranav Kumar
160	87.5	220C2030176	B	Ayush Sengar
161	75	220C2030177	C+	Nikhil Kumar

162	81.25	220C2030179	B	Vedansh Kumawat
163	93.75	220C2030180	A	DAKSHI ARORA
164	81.25	220C2030213	B+	Anushka mishra
165	75	220C2030228	A	Diya Rawal
166	96.88	220C2030255	A	Deepanshu Mehlawat
167	84.38	220C2030259	C	Kashish Dagar
168	84.38	220C2030260	B	Anant Singh
169	78.13	220C2030261	C+	Anant Upadhiyay
170	93.75	220C2030263	C+	Anusha Singh
171	84.38	220C2030292	B	Gourav Sharma
172	90.16	220C2030004	B	Payal Dabas
173	90.16	220C2030005	C	Yash Vardhan Kasana
174	95.08	220C2030014	A+	Anika Sharma
175	86.89	220C2030037	C	Jatin Singh
176	90.16	220C2030051	B	Yash Sharma
177	88.52	220C2030057	B	Astha Rai
178	96.72	220C2030059	A+	Meenakshi Kamakolanu
179	93.44	220C2030079	C+	Jashan Kamboj
180	88.52	220C2030080	C+	Suryansh Sharma
181	91.8	220C2030082	B+	Mohit Kalwar
182	91.8	220C2030089	B	Kushagra Gangwar
183	86.89	220C2030142	C+	Divyam Verma
184	91.8	220C2030153	B+	Shubhangi Sinha
185	96.72	220C2030156	B+	Ayush Gurjar
186	98.36	220C2030184	A+	Shreya Gupta
187	90.16	220C2030186	B	Gautam Jain
188	81.97	220C2030187	A	Boppana Chaitanya
189	96.72	220C2030189	A+	Sai Tejaswi Woonna
190	93.44	220C2030190	B	Vishwas Choudhary
191	81.97	220C2030191	B	Ananya Srivastava
192	93.44	220C2030192	B	Rithik Yadav
193	93.44	220C2030193	C+	Shreyansh Tripathi
194	95.08	220C2030194	C+	Vansh Tyagi
195	78.69	220C2030195	C+	Yashveer Ahlawat
196	83.61	220C2030196	B	Rishabh .
197	91.8	220C2030197	B	Akshay Menon
198	91.8	220C2030198	A	Harshit Jain
199	93.44	220C2030199	B+	Abhishek Sharma
200	81.97	220C2030201	C	Suryansh Dubey
201	86.89	220C2030202	C	Manish Kumar
202	83.61	220C2030203	C+	Tanish Dhingra
203	86.89	220C2030204	B	Mukul Dev
204	91.8	220C2030207	C+	Anshul Gadia
205	93.44	220C2030208	C	Akshay Parihar
206	88.52	220C2030209	B+	Sai Ram Aditya Kasarla
207	91.8	220C2030212	C+	Abhishek Dadhich
208	83.61	220C2030215	B	Ayush Chauhan
209	90.16	220C2030216	A+	Sai Sri Mohnit Akula
210	96.72	220C2030218	A+	Pulagam Sanjay Reddy
211	93.44	220C2030219	B	Aaditya Malhotra
212	86.89	220C2030222	B	Vinit Yaduvanshi
213	96.72	220C2030225	B+	Khushi
214	91.8	220C2030227	A	Sejal Kumari
215	100	220C2030229	A+	Uday Sushanth Malleboina
216	96.72	220C2030230	B+	Robin Yadav
217	95.08	220C2030231	A+	Sayantan .
218	85.25	220C2030232	C+	Harshita Rupani



219	96.72	220C2030234	B	Himanshu
220	95.08	220C2030235	B+	Mayank Garg
221	93.44	220C2030237	B+	Bhargavi Sharma
222	81.97	220C2030239	C+	Gautam Shukla
223	95.08	220C2030241	B	Vansh Gulati
224	96.72	220C2030243	C+	Abhinav .
225	77.05	220C2030262	B	Harshit Saharan
226	96.72	220C2030268	B	Ashish Saharia
227	95.08	220C2030269	C+	Priyanshu Garg
228	91.8	220C2030270	A+	Radhika Bhati
229	95.08	220C2030272	A+	Kushaal Adithya Kalluri
230	85.25	220C2030273	C+	Sahil Merothia
231	88.52	220C2030274	C	Krish Sakhuja
232	93.44	220C2030276	B	Rohit
233	93.44	220C2030279	A+	Deepanshu Aggarwal
234	75.41	220C2030001	C	Manav Sharma
235	78.69	220C2030034	B	Anmol Maheshwari
236	86.89	220C2030040	C+	Rishi Mahajan
237	77.05	220C2030050	B	Rohit Rathi
238	80.33	220C2030063	B+	Manan Lakhotia
239	86.89	220C2030069	B+	Saransh Bhargava
240	80.33	220C2030085	C+	Rishabh Sharma
241	77.05	220C2030101	C	Jayant
242	90.16	220C2030106	B	Lakshya Bindal
243	88.52	220C2030144	B+	Akshit Gupta
244	77.05	220C2030172	C	Harsh Singh
245	95.08	220C2030182	B+	Ritika Yadav
246	78.69	220C2030183	C+	Vaasu
247	75.41	220C2030188	C	Apoorva Tyagi
248	75.41	220C2030205	B	Vansh Shukla
249	86.89	220C2030211	B+	Priyanshi Srivastava
250	88.52	220C2030217	B	Shruti
251	90.16	220C2030233	B	Harsh Kumar
252	75.41	220C2030250	A	Vikram Mittal
253	93.44	220C2030254	B+	Mishthi
254	88.52	220C2030264	B	Anshul Yadav
255	81.97	220C2030265	B	Udit Kumar
256	88.52	220C2030266	B+	Vivek Sherawat
257	86.89	220C2030277	A+	Aditya Tak
258	80.33	220C2030278	C+	Anjali
259	81.97	220C2030282	B	Aakankshi
260	91.8	220C2030287	B	Sujal Yadav
261	91.8	220C2030289	B+	Shivanshu -
262	81.97	220C2030290	B+	Anurag Anand
263	77.05	220C2030291	C	Gaurish Bhatia
264	86.89	220C2030294	B	Sanjeev Kumar
265	75.41	220C2030297	C	Dishank Sharma
266	88.52	220C2030301	B+	Umesh
267	95.08	220C2030302	B	Ashim Choudhary
268	85.25	220C2030303	C+	Harsh
269	85.25	220C2030304	B	Keshav .
270	88.52	220C2030306	B	Ishika Panwar
271	80.33	220C2030307	B+	K Sai Revanth Revanth
272	80.33	220C2030308	B	Vaibhav Chauhan
273	96.72	220C2030309	B	Man Mohit Yadav
274	78.69	220C2030310	C+	Gaurav Chaudhary
275	86.89	220C2030312	B+	Aayush Bhardwaj
276	90.16	220C2030313	B+	Vineet Kumar

277	90.16	220C2030314	A	Deepanshi
278	75.41	220C2030315	C+	Nishant Kasana
279	95.08	220C2030316	B	Umang Gupta
280	77.05	220C2030317	B+	Utplaksh Mishra
281	81.97	220C2030318	B+	Komal Sharma
282	81.97	220C2030319	B	Sunny Bishnoi
283	86.89	220C2030320	C	Kartik
284	90.16	220C2030321	A	Himanshu .
285	91.8	220C2030322	A	Vivek Sachdeva
286	78.69	220C2030323	B	Tanish Somani
287	83.61	220C2030324	C	Sugandha Choudhary
288	80.33	220C2030327	C+	Tushar Tripathi
289	88.52	220C2030328	B	Charu Saini
290	85.25	220C2030329	C+	Harshad Kaushal
291	91.8	220C2030330	B+	Ashwikk Patel
292	78.69	220C2030331	B+	Rahul Sharma
293	83.61	220C2030332	B	Harsh Sehwat
294	83.61	220C2030334	A	Dipanshu Srivastava
295	91.8	220C2030336	A	Lakshay Nandwani

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

Sr.No	Unique Id.	Student Name	Attendance	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	220C2030054	Kanika	80.56	C+	7	18	7	28	60
2	220C2030062	SAGAR SINDHU	80.56	B	8.5	22	9	29	68.5
3	220C2030065	DIVYANSHU BANSAL	97.22	B	7.5	22	12	26	67.5
4	220C2030068	Ananya Aggarwal	97.22	B	7.5	19	11	30	67.5
5	220C2030070	Karan Sharma	83.33	C	6	16	13	22	57
6	220C2030071	Nihar Singla	86.11	B+	7.5	23	12	28	70.5
7	220C2030073	Abhinav Vuddagiri	83.33	B	7.5	18	14	26	65.5
8	220C2030074	Aryan Pratap Singh	77.78	B	8	21	10	29	68
9	220C2030076	Dhruv Sharma	75	B+	8	21	13	29	71
10	220C2030077	Aastha Singh	83.33	B+	8	21	12	29	70
11	220C2030078	Siddhika Sinha	88.89	B+	8	23	11	31	73
12	220C2030081	Saatvik Bhola	77.78	B+	8.5	21	12	31	72.5
13	220C2030086	Sapare Aravind	94.44	C	7.5	17	6	26	56.5
14	220C2030087	Vishwajeet Tripathi	91.67	B+	9	20	16	27	72
15	220C2030091	Gopala Krishna Nuthakki	83.33	B+	8.5	19	19	26	72.5
16	220C2030093	Vemula Chetan Nihith	86.11	B+	8.5	19	16	26	69.5
17	220C2030096	Punit Yadav	83.33	C	6.5	21	6	25	58.5
18	220C2030098	Sanskar Gupta	91.67	B	9	22	11	27	69
19	220C2030099	jatin nunach	94.44	C	7	19	5	26	57
20	220C2030102	Nirbhay	97.22	B+	7.5	22	11	29	69.5
21	220C2030105	GUNEET CHAWLA	77.78	C+	8	19	11	25	63
22	220C2030108	Raghvendra Singh Chouhan	91.67	B	7.5	20	14	27	68.5
23	220C2030109	Siddharth Singh	83.33	B+	8.5	21	13	29	71.5
24	220C2030111	ANIL KUMAR	83.33	B	7	19	13	25	64
25	220C2030114	Aman Gupta	94.44	A	8.5	21	14	31	74.5
26	220C2030115	Daksh Verma	80.56	C+	7	18	8	28	61
27	220C2030116	Ayushman Raghav	88.89	B	7	21	10	29	67
28	220C2030118	Pranav Raj	88.89	B+	8.5	21	11	30	70.5
29	220C2030119	Aditya Rastogi	86.11	B	7.5	19	11	29	66.5
30	220C2030120	Nikhil Kumar Tomar	91.67	A	9	21	17	28	75
31	220C2030127	Bhuwan Dahiya	86.11	B	7.5	20	13	28	68.5
32	220C2030181	Piyush Garg	91.67	B	7.5	22	11	26	66.5

33	220C2030185	Bhaves Choudhary	94.44	B	8.5	22	7	29	66.5
34	220C2030210	Purav Malik	91.67	B	6.5	19	11	28	64.5
35	220C2030223	Shaleen Chordia	91.67	B	7	20	11	28	66
36	220C2030245	Vishal Yadav	91.67	C+	8	18	13	24	63
37	220C2030247	Peehu Khandelwal	86.11	C+	7.5	19	6	29	61.5
38	220C2030248	Pryanshu Kumar	88.89	A	8	22	13	31	74
39	220C2030249	Paras Khola	80.56	B	7.5	20	11	28	66.5
40	220C2030251	Swapnadip Nandi	100	B	8	19	11	28	66
41	220C2030253	CHAITANYA KALRA	91.67	B	6.5	19	8	30	63.5
42	220C2030256	Shashank Gupta	91.67	C	6	17	9	23	55
43	220C2030257	Anirudh Shukla	80.56	C+	7	20	7	28	62
44	220C2030258	Suryadeep .	83.33	B+	8.5	21	9	31	69.5
45	220C2030267	Manan Khandelwal	86.11	B	8.5	22	7	29	66.5
46	220C2030283	Manav Saini	91.67	B	7.5	20	11	27	65.5
47	220C2030284	Himanshu Chaturvedi	86.11	C+	6.5	21	7	25	59.5
48	220C2030285	Raghav Malik	94.44	C+	6.5	15	11	28	60.5
49	220C2030288	Archie Khubnani	86.11	B	7	20	13	29	69
50	220C2030293	Manav	94.44	A	8.5	23	12	30	73.5
51	220C2030305	Shivam Purohit	86.11	B+	8	22	11	30	71
52	220C2030311	Ritika Gupta	88.89	B	7	20	11	29	67
53	220C2030326	Ashish Ranjan	88.89	A	7.5	23	13	30	73.5
54	220C2030333	Siddhant Kalla	88.89	B+	8	22	10	31	71
55	220C2030002	Batchu Ratna Lahari	80.77	A	9	24	9	34	76
56	220C2030003	Nishant Luhera	76.92	A	9	24	8	35	76
57	220C2030006	Vidyansh Raj Gupta	82.69	C+	5	17	11	29	62
58	220C2030007	Monika	90.38	B	7.5	20	11	28	66.5
59	220C2030008	Nakshatra Mittal	65.38	C+	7	19	11	28	65
60	220C2030009	Manavendra Singh	94.23	A	9	24	11	30	74
61	220C2030010	Raj Kumar Shrivastava	92.31	C	6	18	8	23	55
62	220C2030011	Sanya Goel	88.46	B+	8	22	13	30	73
63	220C2030012	Likhit Sagar Gajja	76.92	A	6.5	22	16	30	74.5
64	220C2030016	Sarthak Gupta	80.77	A+	8.5	23	15	30	76.5
65	220C2030017	Jasmine Sindhu	78.85	C+	8	17	6	30	61
66	220C2030018	Anirudh Dattu	88.46	A+	9	24	17	34	84
67	220C2030019	Himanshu Mohanty	84.62	C+	8	20	8	25	61
68	220C2030020	Rohan Dhingra	82.69	C+	7	19	9	28	63

69	220C2030022	Akaash Gupta Vandanapu	82.69	A	9	22	13	30	74
70	220C2030023	Abhay Rajesh Shah	84.62	A+	9	24	13	32	78
71	220C2030024	Lalit Kumar	82.69	B	5	20	13	26	64
72	220C2030025	Naman Sharma	86.54	B+	8.5	23	11	30	72.5
73	220C2030026	ROHIT YADAV	86.54	C	6	18	10	23	57
74	220C2030027	Aryashrestha Sagar	84.62	B+	8	24	9	30	71
75	220C2030028	Aryyan Ahlawat	78.85	B	8	18	11	30	67
76	220C2030029	BHAVUK	92.31	B	7.5	21	6	32	66.5
77	220C2030030	Rongali Aryan	80.77	B+	9	22	9	30	70
78	220C2030032	Vikas Choudhary	78.85	B	8	20	12	24	64
79	220C2030033	Muskan Yadav	90.38	C+	7.5	19	10	24	60.5
80	220C2030036	E Umesh	78.85	B	7	20	13	26	66
81	220C2030038	Mitnapure Prasad Sharad	84.62	B	8.5	19	9	29	65.5
82	220C2030044	Basireddy Nithishreddy	78.85	B	7	20	13	26	66
83	220C2030045	Chinmay Srivastava	90.38	B	8	23	11	26	68
84	220C2030046	Sheena Mittal	84.62	A	8.5	24	13	29	74.5
85	220C2030047	Akshay Katoch	82.69	B	7.5	18	11	30	66.5
86	220C2030048	Aakarsh Purwar	84.62	A+	9	24	14	31	78
87	220C2030049	Akshaya Velumuri	84.62	B	7.5	19	13	24	63.5
88	220C2030052	Manasvi .	86.54	A	8.5	23	13	29	73.5
89	220C2030053	Mayank Pratap Singh	80.77	A	8	24	13	30	75
90	220C2030055	Aadit Arora	61.54	C	7.5	19	11	24	61.5
91	220C2030058	Pranav Kanumuri	75	C+	9	20	5	26	60
92	220C2030060	Raghav Arora	82.69	A+	9	22	13	33	77
93	220C2030067	YAMA LALITHA SAI MADHURI	86.54	B	7.5	19	13	24	63.5
94	220C2030075	Prashant Kumar	82.69	C	6	18	12	23	59
95	220C2030083	Rudra Gupta	75	B	8	17	14	30	69
96	220C2030090	Maitri Sharma	84.62	B+	8	24	9	32	73
97	220C2030100	Archit Prasher	94.23	B+	7.5	23	11	29	70.5
98	220C2030110	RAGHUVANSH SINGH PARMAR	98.08	B+	8	23	14	26	71
99	220C2030112	Viresh Chauhan	78.85	A+	9	24	17	35	85
100	220C2030170	Aditya Agarwal	86.54	B+	8.5	23	13	28	72.5
101	220C2030178	Kartik Mehta	94.23	B+	9.5	21	13	27	70.5
102	220C2030200	Daksh Goel	82.69	B+	9	23	8	32	72
103	220C2030224	Akshay Korrapati	75	B+	6.5	22	12	30	70.5
104	220C2030242	Ruchi Verma	82.69	B	7.5	20	8	29	64.5

105	220C2030246	Daksh	92.31	B+	7	22	12	29	70
106	220C2030252	Vidhika Mangla	90.38	B+	8	24	10	30	72
107	220C2030280	Bhumika	84.62	B+	9	21	11	32	73
108	220C2030281	Bhawna	86.54	B	9	21	5	32	67
109	220C2030299	Govind Madhav Sharma	78.85	C	8	20	5	25	58
110	220C2030300	Ankur Singh	80.77	C	8	20	7	24	59
111	220C2030015	Ratul Pal	81.25	B	9	22	8	30	69
112	220C2030021	Vaibhav Arora	81.25	F	0	16	1	0	17
113	220C2030031	Nidamanuri Bhargava Srinivas	81.25	B+	9	24	8	32	73
114	220C2030035	Garv Garg	78.13	A	9	24	9	33	75
115	220C2030072	Saksham Pandla	75	B+	7	23	10	31	71
116	220C2030107	Zahra Rakhshan	84.38	A	9	22	12	31	74
117	220C2030113	Udit Chauhan	78.13	C+	6	18	10	28	62
118	220C2030117	Divas Sharma	87.5	B+	8	22	11	30	71
119	220C2030121	Anurag Godara	84.38	B+	7.5	23	10	30	70.5
120	220C2030122	Gaurangi	96.88	B	7	21	9	29	66
121	220C2030123	Siddhant Ashwary Tiwari	84.38	A+	9	24	12	33	78
122	220C2030124	Priyansh Arora	93.75	B+	7	24	12	27	70
123	220C2030125	Ishika Kochhar	78.13	A	7	23	15	31	76
124	220C2030126	Lakshya Gupta	93.75	A+	9	23	15	32	79
125	220C2030128	MOHAK GUPTA	87.5	C+	7.5	24	7	24	62.5
126	220C2030129	Aditya Bansal	78.13	B	6.5	18	7	32	63.5
127	220C2030130	PAVAN THRINATH KALVAKOTA	87.5	A	9	23	12	32	76
128	220C2030131	Namrata DHINGRA	93.75	B	8	22	6	29	65
129	220C2030132	Jatin Kumar Phogat	93.75	B	5	20	13	27	65
130	220C2030133	Abhinav Sharma	87.5	B	7	21	8	31	67
131	220C2030134	Sohan Sen	90.63	B	6.5	21	7	29	63.5
132	220C2030136	Krishnansh Garg	87.5	C+	5.5	21	9	27	62.5
133	220C2030138	Parag Garg	90.63	A+	8.5	23	13	33	77.5
134	220C2030139	Yash Arora	90.63	B	7	24	11	27	69
135	220C2030140	Saurabh	84.38	B	7.5	22	13	24	66.5
136	220C2030141	Mridul Singh	81.25	B	7	21	9	31	68
137	220C2030143	Utkarsh Tonk	81.25	B+	8	25	11	29	73
138	220C2030145	RISHIT ABHILASH	78.13	B	8	22	7	29	66
139	220C2030147	Shivanshi Goel	78.13	C+	5.5	21	8	27	61.5
140	220C2030148	Hardik Pandey	84.38	C+	7	21	3	29	60

141	220C2030149	Anup Kumar	93.75	D	0	20	3	26	49
142	220C2030150	Nishtha Jain	87.5	A+	8	26	16	29	79
143	220C2030151	Gagan Singhal	87.5	A+	8	24	14	32	78
144	220C2030152	Ayushi Singh	81.25	B+	8	24	8	32	72
145	220C2030154	Phani Harshith Kotturu	87.5	B	7.5	24	10	24	65.5
146	220C2030155	Yogesh Sharma	78.13	B	7	21	11	29	68
147	220C2030157	Shradha Aggarwal	90.63	B+	7.5	23	11	30	71.5
148	220C2030159	Hemant kumar	81.25	B	5	18	10	31	64
149	220C2030160	Divyansh verma	87.5	C+	6	22	7	26	61
150	220C2030161	Suraj	90.63	C+	6.5	22	8	26	62.5
151	220C2030163	Nishant	96.88	B	4.5	24	9	29	66.5
152	220C2030164	Ankit Rathi	96.88	B	4.5	24	9	29	66.5
153	220C2030165	Bhomik Tomar	84.38	A	9	24	10	33	76
154	220C2030167	Vidushi Saxena	81.25	A	9	22	12	31	74
155	220C2030168	Divyansh Verma	87.5	C+	4.5	18	8	31	61.5
156	220C2030169	Chetan Sharma	87.5	C	8	21	6	24	59
157	220C2030171	Prakhar Kumar Srivastava	84.38	B	6.5	22	9	27	64.5
158	220C2030174	B Anirudh	81.25	B	8	22	8	31	69
159	220C2030175	Aranav Kumar	84.38	C+	6.5	23	8	24	61.5
160	220C2030176	Ayush Sengar	87.5	B	7.5	23	8	28	66.5
161	220C2030177	Nikhil Kumar	75	C+	6.5	23	8	24	61.5
162	220C2030179	Vedansh Kumawat	81.25	B	8	23	10	28	69
163	220C2030180	DAKSHI ARORA	93.75	A	8.5	23	10	33	74.5
164	220C2030213	Anushka mishra	81.25	B+	7	24	13	29	73
165	220C2030228	Diya Rawal	75	A	7	24	15	29	75
166	220C2030255	Deepanshu Mehlawat	96.88	A	7.5	24	11	31	73.5
167	220C2030259	Kashish Dagar	84.38	C	5.5	18	9	24	56.5
168	220C2030260	Anant Singh	84.38	B	7	21	9	29	66
169	220C2030261	Anant Upadhiyay	78.13	C+	6.5	21	3	29	59.5
170	220C2030263	Anusha Singh	93.75	C+	8	17	11	27	63
171	220C2030292	Gourav Sharma	84.38	B	8	23	8	28	67
172	220C2030004	Payal Dabas	90.16	B	8	23	5	30	66
173	220C2030005	Yash Vardhan Kasana	90.16	C	5	22	8	24	59
174	220C2030014	Anika Sharma	95.08	A+	9	26	10	32	77
175	220C2030037	Jatin Singh	86.89	C	5	21	7	24	57
176	220C2030051	Yash Sharma	90.16	B	6	22	9	28	65
177	220C2030057	Astha Rai	88.52	B	6	23	9	28	66
178	220C2030059	Meenakshi Kamakolanu	96.72	A+	9	25	12	32	78

179	220C2030079	Jashan Kamboj	93.44	C+	6	21	11	24	62
180	220C2030080	Suryansh Sharma	88.52	C+	6	20	10	26	62
181	220C2030082	Mohit Kalwar	91.8	B+	6	21	15	31	73
182	220C2030089	Kushagra Gangwar	91.8	B	6	23	12	28	69
183	220C2030142	Divyam Verma	86.89	C+	5	22	12	24	63
184	220C2030153	Shubhangi Sinha	91.8	B+	7	22	13	30	72
185	220C2030156	Ayush Gurjar	96.72	B+	6	23	11	30	70
186	220C2030184	Shreya Gupta	98.36	A+	9	26	13	32	80
187	220C2030186	Gautam Jain	90.16	B	6	18	13	28	65
188	220C2030187	Boppana Chaitanya	81.97	A	8	25	11	31	75
189	220C2030189	Sai Tejaswi Woonna	96.72	A+	8	25	17	32	82
190	220C2030190	Vishwas Choudhary	93.44	B	7	23	9	28	67
191	220C2030191	Ananya Srivastava	81.97	B	7	19	9	30	65
192	220C2030192	Rithik Yadav	93.44	B	7	22	9	29	67
193	220C2030193	Shreyansh Tripathi	93.44	C+	7	21	7	28	63
194	220C2030194	Vansh Tyagi	95.08	C+	6	21	7	28	62
195	220C2030195	Yashveer Ahlawat	78.69	C+	6	21	8	28	63
196	220C2030196	Rishabh .	83.61	B	7	20	10	30	67
197	220C2030197	Akshay Menon	91.8	B	7	21	10	28	66
198	220C2030198	Harshit Jain	91.8	A	6	23	15	30	74
199	220C2030199	Abhishek Sharma	93.44	B+	8	25	8	32	73
200	220C2030201	Suryansh Dubey	81.97	C	5	18	9	26	58
201	220C2030202	Manish Kumar	86.89	C	6	18	10	23	57
202	220C2030203	Tanish Dhingra	83.61	C+	6	18	15	23	62
203	220C2030204	Mukul Dev	86.89	B	7	21	9	30	67
204	220C2030207	Anshul Gadia	91.8	C+	7	21	7	28	63
205	220C2030208	Akshay Parihar	93.44	C	5	18	10	26	59
206	220C2030209	Sai Ram Aditya Kasarla	88.52	B+	8	23	11	31	73
207	220C2030212	Abhishek Dadhich	91.8	C+	7	19	10	25	61
208	220C2030215	Ayush Chauhan	83.61	B	7	23	10	28	68
209	220C2030216	Sai Sri Mohnit Akula	90.16	A+	8	25	13	32	78
210	220C2030218	Pulagam Sanjay Reddy	96.72	A+	8	25	13	32	78
211	220C2030219	Aaditya Malhotra	93.44	B	6	21	9	31	67
212	220C2030222	Vinit Yaduvanshi	86.89	B	7	22	7	30	66
213	220C2030225	Khushi	96.72	B+	8	23	10	30	71



214	220C2030227	Sejal Kumari	91.8	A	8	25	10	32	75
215	220C2030229	Uday Sushanth Malleboina	100	A+	8	25	13	32	78
216	220C2030230	Robin Yadav	96.72	B+	7	22	11	31	71
217	220C2030231	Sayantan .	95.08	A+	8	25	13	32	78
218	220C2030232	Harshita Rupani	85.25	C+	7	19	7	30	63
219	220C2030234	Himanshu	96.72	B	6	23	9	30	68
220	220C2030235	Mayank Garg	95.08	B+	7	22	10	31	70
221	220C2030237	Bhargavi Sharma	93.44	B+	8	23	10	31	72
222	220C2030239	Gautam Shukla	81.97	C+	6	18	9	27	60
223	220C2030241	Vansh Gulati	95.08	B	7	18	12	27	64
224	220C2030243	Abhinav .	96.72	C+	7	18	11	27	63
225	220C2030262	Harshit Saharan	77.05	B	7	18	13	27	65
226	220C2030268	Ashish Saharia	96.72	B	8	20	7	30	65
227	220C2030269	Priyanshu Garg	95.08	C+	6	21	11	24	62
228	220C2030270	Radhika Bhati	91.8	A+	9	25	10	33	77
229	220C2030272	Kushaal Adithya Kalluri	95.08	A+	8	26	13	33	80
230	220C2030273	Sahil Merothia	85.25	C+	6	20	9	25	60
231	220C2030274	Krish Sakhuja	88.52	C	6	18	6	28	58
232	220C2030276	Rohit	93.44	B	9	20	10	30	69
233	220C2030279	Deepanshu Aggarwal	93.44	A+	9	25	10	33	77
234	220C2030001	Manav Sharma	75.41	C	5	18	10	23	56
235	220C2030034	Anmol Maheshwari	78.69	B	8	21	10	30	69
236	220C2030040	Rishi Mahajan	86.89	C+	7	21	8	27	63
237	220C2030050	Rohit Rathi	77.05	B	8	21	9	28	66
238	220C2030063	Manan Lakhotia	80.33	B+	8	21	13	30	72
239	220C2030069	Saransh Bhargava	86.89	B+	8	23	10	31	72
240	220C2030085	Rishabh Sharma	80.33	C+	7	20	9	26	62
241	220C2030101	Jayant	77.05	C	6	18	9	23	56
242	220C2030106	Lakshya Bindal	90.16	B	6	21	10	30	67
243	220C2030144	Akshit Gupta	88.52	B+	8	21	13	28	70
244	220C2030172	Harsh Singh	77.05	C	5	18	13	20	56
245	220C2030182	Ritika Yadav	95.08	B+	7	22	13	29	71
246	220C2030183	Vaasu	78.69	C+	6	18	13	23	60
247	220C2030188	Apoorva Tyagi	75.41	C	5	18	10	20	53
248	220C2030205	Vansh Shukla	75.41	B	6	21	10	30	67
249	220C2030211	Priyanshi Srivastava	86.89	B+	7	23	10	30	70
250	220C2030217	Shruti	88.52	B	7	21	10	28	66
251	220C2030233	Harsh Kumar	90.16	B	6	21	10	29	66
252	220C2030250	Vikram Mittal	75.41	A	7	23	15	29	74
253	220C2030254	Mishthi	93.44	B+	8	23	10	32	73

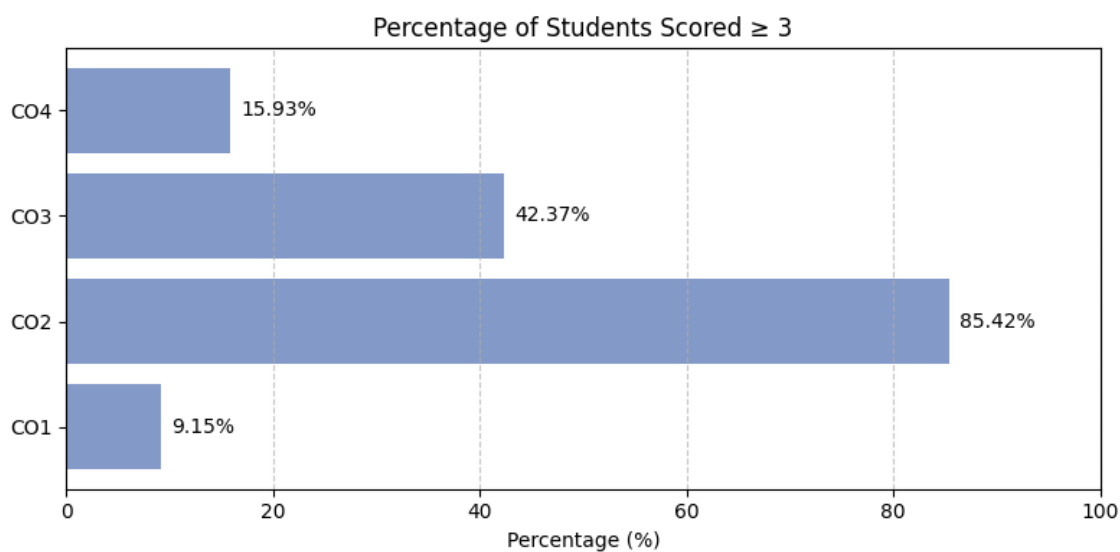
254	220C2030264	Anshul Yadav	88.52	B	7	22	10	29	68
255	220C2030265	Udit Kumar	81.97	B	7	22	12	27	68
256	220C2030266	Vivek Sherawat	88.52	B+	6	21	14	31	72
257	220C2030277	Aditya Tak	86.89	A+	9	26	10	34	79
258	220C2030278	Anjali	80.33	C+	6	19	11	27	63
259	220C2030282	Aakankshi	81.97	B	8	21	9	28	66
260	220C2030287	Sujal Yadav	91.8	B	6	21	9	30	66
261	220C2030289	Shivanshu -	91.8	B+	8	22	11	31	72
262	220C2030290	Anurag Anand	81.97	B+	8	23	11	30	72
263	220C2030291	Gaurish Bhatia	77.05	C	6	17	11	22	56
264	220C2030294	Sanjeev Kumar	86.89	B	7	19	11	27	64
265	220C2030297	Dishank Sharma	75.41	C	6	17	12	22	57
266	220C2030301	Umesh	88.52	B+	7	23	12	29	71
267	220C2030302	Ashim Choudhary	95.08	B	6	21	10	30	67
268	220C2030303	Harsh	85.25	C+	7	18	12	24	61
269	220C2030304	Keshav .	85.25	B	7	22	14	26	69
270	220C2030306	Ishika Panwar	88.52	B	7	22	9	28	66
271	220C2030307	K Sai Revanth Revanth	80.33	B+	8	23	9	30	70
272	220C2030308	Vaibhav Chauhan	80.33	B	7	21	9	27	64
273	220C2030309	Man Mohit Yadav	96.72	B	7	19	11	27	64
274	220C2030310	Gaurav Chaudhary	78.69	C+	7	20	9	26	62
275	220C2030312	Aayush Bhardwaj	86.89	B+	7	22	12	29	70
276	220C2030313	Vineet Kumar	90.16	B+	8	21	15	29	73
277	220C2030314	Deepanshi	90.16	A	8	22	14	31	75
278	220C2030315	Nishant Kasana	75.41	C+	6	18	13	25	62
279	220C2030316	Umang Gupta	95.08	B	6	21	13	29	69
280	220C2030317	Utplaksh Mishra	77.05	B+	6	21	13	30	70
281	220C2030318	Komal Sharma	81.97	B+	7	22	14	28	71
282	220C2030319	Sunny Bishnoi	81.97	B	6	19	12	27	64
283	220C2030320	Kartik	86.89	C	7	17	10	23	57
284	220C2030321	Himanshu .	90.16	A	8	22	13	31	74
285	220C2030322	Vivek Sachdeva	91.8	A	8	22	15	30	75
286	220C2030323	Tanish Somani	78.69	B	7	22	11	29	69
287	220C2030324	Sugandha Choudhary	83.61	C	6	17	6	24	53
288	220C2030327	Tushar Tripathi	80.33	C+	5	22	6	27	60
289	220C2030328	Charu Saini	88.52	B	7	22	11	28	68
290	220C2030329	Harshad Kaushal	85.25	C+	7	18	8	29	62
291	220C2030330	Ashwikk Patel	91.8	B+	8	22	13	30	73
292	220C2030331	Rahul Sharma	78.69	B+	6	21	13	31	71
293	220C2030332	Harsh Sehwari	83.61	B	7	18	13	29	67

294	220C2030334	Dipanshu Srivastava	83.61	A	7	23	14	30	74
295	220C2030336	Lakshay Nandwani	91.8	A	8	23	11	32	74

## 12. CO Attainment Analysis

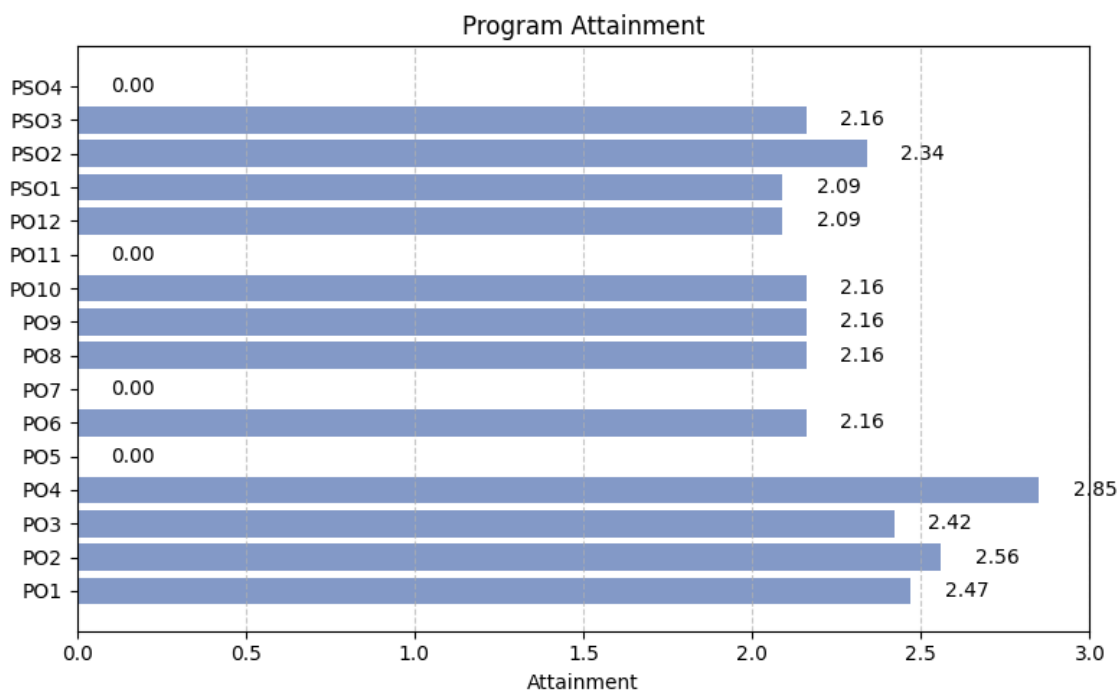
### CO Attainment Summary

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
<b>Overall Course Attainment</b>	<b>1.7500</b>			



### 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



**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
Bhaves 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 Shrivastava	2	2	2	2
Sanya Goel	2	3	3	2
Likhith 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

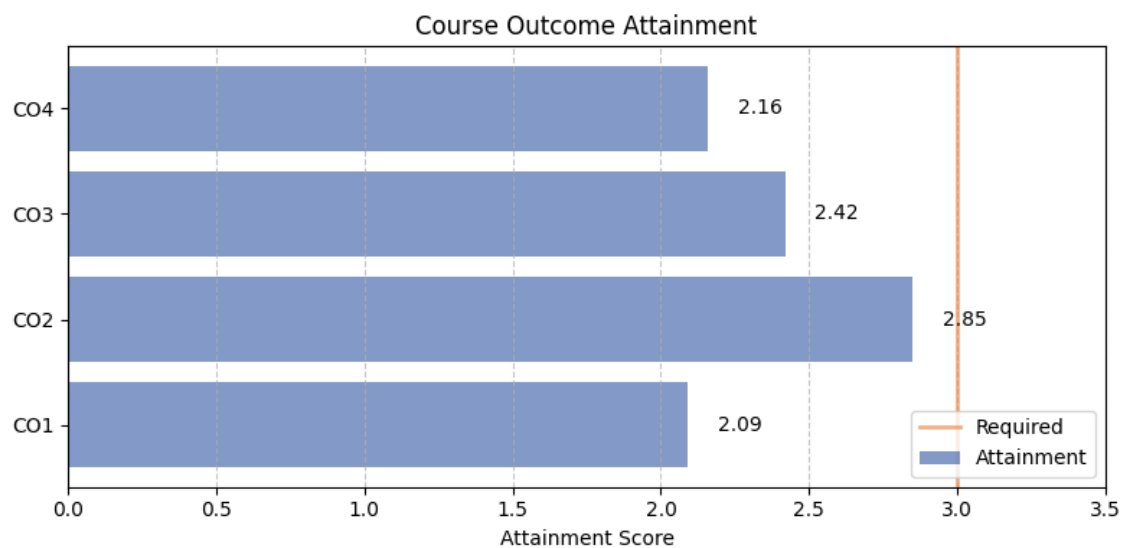
Aditya Agarwal	2	3	3	2
Kartik Mehta	2	3	3	2
Daksh Goel	2	3	3	2
Akshay Korrapati	2	3	3	2
Ruchi Verma	2	3	2	2
Daksh	2	3	3	2
Vidhika Mangla	2	3	3	2
Bhumika	2	3	3	3
Bhawna	2	3	3	2
Govind Madhav Sharma	2	2	2	2
Ankur Singh	2	2	2	2
Ratul Pal	2	3	3	2
Vaibhav Arora	1	1	1	1
Nidamanuri Bhargava Srinivas	2	3	3	3
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



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
Sarangsh 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
<b>Average</b>	<b>2.09</b>	<b>2.85</b>	<b>2.42</b>	<b>2.16</b>



## 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
Bhaves 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 Shrivias	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
Lakshya 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 Rath	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	24
Medium Learners	270
Slow Learners	1

### Student Learning Classification

Student Name	Category
Sarthak Gupta	Advanced Learner
Anirudh Dattu	Advanced Learner
Abhay Rajesh Shah	Advanced Learner
Aakarsh Purwar	Advanced Learner
Raghav Arora	Advanced Learner
Viresh Chauhan	Advanced Learner
Siddhant Ashwary Tiwari	Advanced Learner
Ishika Kochhar	Advanced Learner
Lakkshya Gupta	Advanced Learner
Parag Garg	Advanced Learner
Nishtha Jain	Advanced Learner
Gagan Singhal	Advanced Learner
Anika Sharma	Advanced Learner
Meenakshi Kamakolanu	Advanced Learner
Shreya Gupta	Advanced Learner
Sai Tejaswi Woonna	Advanced Learner
Sai Sri Mohnit Akula	Advanced Learner
Pulagam Sanjay Reddy	Advanced Learner
Uday Sushanth Malleboina	Advanced Learner
Sayantana .	Advanced Learner
Radhika Bhati	Advanced Learner
Kushaal Adithya Kalluri	Advanced Learner
Deepanshu Aggarwal	Advanced Learner
Aditya Tak	Advanced Learner
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
Bhaves 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 Shrivastava	Medium Learner
Sanya Goel	Medium Learner
Likhith Sagar Gajja	Medium Learner
Jasmine Sindhu	Medium Learner
Himanshu Mohanty	Medium Learner
Rohan Dhir	Medium Learner
Akash Gupta Vandanapu	Medium Learner
Lalit Kumar	Medium Learner
Naman Sharma	Medium Learner
ROHIT YADAV	Medium Learner
Aryashrestha Sagar	Medium Learner
Aryan 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
Akshaya Velumuri	Medium Learner
Manasvi .	Medium Learner
Mayank Pratap Singh	Medium Learner
Aadit Arora	Medium Learner
Pranav Kanumuri	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
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
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
Priyansh Arora	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
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
Ayushi Singh	Medium Learner

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Yogesh Sharma	Medium Learner
Shradha Aggarwal	Medium Learner
Hemant kumar	Medium Learner
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Suraj	Medium Learner
Nishant	Medium Learner
Ankit Rathi	Medium Learner
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Boppana Chaitanya	Medium Learner
Vishwas Choudhary	Medium Learner
Ananya Srivastava	Medium Learner
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Ayush Chauhan	Medium Learner
Aaditya Malhotra	Medium Learner
Vinit Yaduvanshi	Medium Learner
Khushi	Medium Learner
Sejal Kumari	Medium Learner
Robin Yadav	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
Sahil Merothia	Medium Learner
Krish Sakhuja	Medium Learner
Rohit	Medium Learner
Manav Sharma	Medium Learner
Anmol Maheshwari	Medium Learner
Rishi Mahajan	Medium Learner
Rohit Rath	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
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
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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 Sehwari	Medium Learner
Dipanshu Srivastava	Medium Learner
Lakshay Nandwani	Medium Learner
Vaibhav Arora	Slow 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

Section 1 of 2

## DIP Quiz -2022 Batch Nov 2024

**B** *I* U [Link](#) [Image](#)

Form description

This form is automatically collecting emails from all respondents. [Change settings](#)

Section 2 of 2

All Questions are compulsory

Description (optional)

Choose the correct statement:



☒ Multiple choice

**B** *I* U [Link](#) [Image](#)

- ☐ 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)



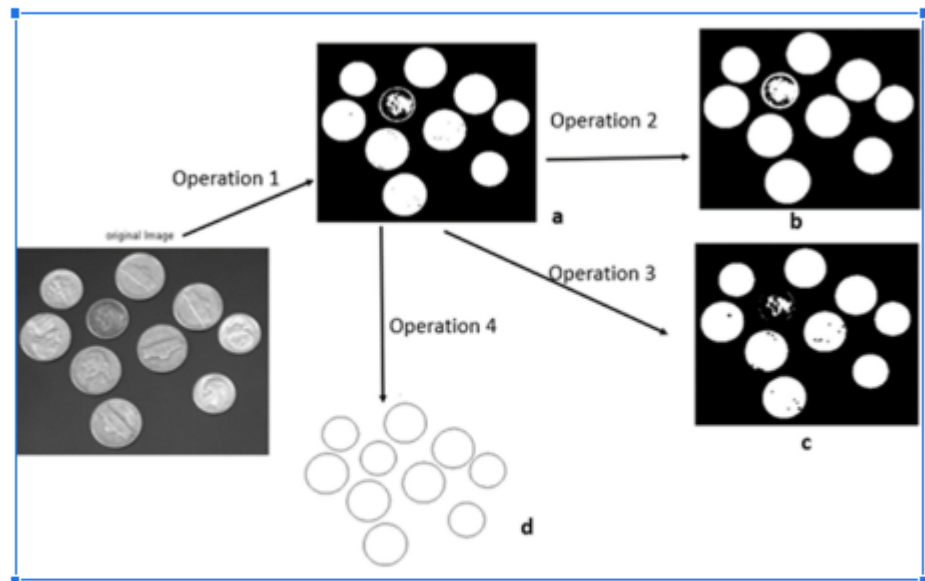
Required



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

Original Image

Operation	
A.	Closing
B.	Erosion
C.	Opening
D.	Dilation

1  
2  
3  
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 [G](#) [X](#)

- ☐ Linear, logarithmic and inverse law X
- ☐ Power law, logarithmic and inverse law ✓ X
- ☐ Linear, logarithmic and power law X
- ☐ Linear, exponential and inverse law X
- ☐ Add option or [add "Other"](#)

Structuring elements runs over image's



Multiple choice

**B** *I* U [G](#) [X](#)

- ☐ rows X
- ☐ columns X
- ☐ Every element ✓ X
- ☐ Edges X
- ☐ Add option or [add "Other"](#)

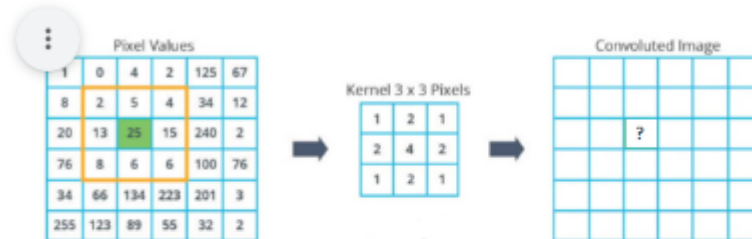


Image patch (under orange square) was convolved with the 3 X 3 kernel shown below in the figure. What will be the resultant output (marked "?" in the image shown) in the convolved image?



☒ Multiple choice

**B** *I* U



☐ 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... X
- ☐ Erosion of image by structuring element followed by addition of the result with the original... X
- ☐ Erosion of image by structuring element followed by dilation of the result with the original ... X
- ☐ Dilation of image by structuring element followed by erosion of the result with the original ... X
- ☐ None of the options ✓ X

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... ✓ X
- ☐ sampling rate determines the number of grey levels in the digitized image, while the quan... X
- ☐ Both determines the special resolution of the image X
- ☐ No statement is correct X

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



Multiple choice

**B** *I* U

- ☐ Box filter X
- ☐ Gaussian Filter X
- ☐ Order-statistic filter ✓ X
- ☐ Laplacian Filter X

Lets you have a  $M \times N$  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.

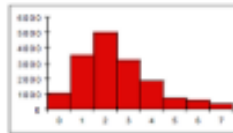


Multiple choice



Fig 1

gray levels $r_k$	$n_k$
0	1000
1	2500
2	5000
3	3000
4	1500
5	750
6	500
7	250
	18250



<table> <tr><td><math>r_0</math></td><td>0</td></tr> <tr><td><math>r_1</math></td><td>1</td></tr> <tr><td><math>r_2</math></td><td>2</td></tr> <tr><td><math>r_3</math></td><td>3</td></tr> <tr><td><math>r_4</math></td><td>4</td></tr> <tr><td><math>r_5</math></td><td>5</td></tr> <tr><td><math>r_6</math></td><td>6</td></tr> <tr><td><math>r_7</math></td><td>7</td></tr> </table> <p>(A)</p>	$r_0$	0	$r_1$	1	$r_2$	2	$r_3$	3	$r_4$	4	$r_5$	5	$r_6$	6	$r_7$	7	<table> <tr><td><math>r_0</math></td><td>0</td></tr> <tr><td><math>r_1</math></td><td>1</td></tr> <tr><td><math>r_2</math></td><td>2</td></tr> <tr><td><math>r_3</math></td><td>3</td></tr> <tr><td><math>r_4</math></td><td>4</td></tr> <tr><td><math>r_5</math></td><td>5</td></tr> <tr><td><math>r_6</math></td><td>6</td></tr> <tr><td><math>r_7</math></td><td>7</td></tr> </table> <p>(B)</p>	$r_0$	0	$r_1$	1	$r_2$	2	$r_3$	3	$r_4$	4	$r_5$	5	$r_6$	6	$r_7$	7
$r_0$	0																																
$r_1$	1																																
$r_2$	2																																
$r_3$	3																																
$r_4$	4																																
$r_5$	5																																
$r_6$	6																																
$r_7$	7																																
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Fig 2

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