


Name:															
Enrolment No:															
UPES End Semester Examination, December 2024															
Course: Application Domains of AI Program: BCA Course Code: CSAI3016		Semester: V Time : 03 hrs. Max. Marks: 100													
Instructions: Please attempt according to the provided time and given weightage															
SECTION A (5Qx4M=20Marks)															
S. No.		Marks	CO												
Q 1	List and explain three common applications of AI in daily life.	4	CO1												
Q 2	How is AI transforming the banking and securities industry?	4	CO2												
Q 3	How does AI improve the targeting of advertisements in media?	4	CO3												
Q 4	Discuss how AI contributes to advancements in diagnostics.	4	CO4												
Q 5	How can AI assist students in career planning?	4	CO5												
SECTION B (4Qx10M= 40 Marks)															
Q 6	What are the benefits of AI-powered Chabot's for customer support in banks?	10	CO4												
Q 7	a) How is AI transforming the education sector? b) Explain the use of AI in finance with examples.	10	CO1, CO5												
Q 8	How have smartphones and social media changed media consumption habits? OR a) Discuss how social media platforms use AI to enhance user engagement. b) How does AI improve the targeting of advertisements in media?	10	CO3												
Q 9	A KNN model is used to classify new data points into one of two classes, A or B. The labelled dataset contains the following data points:	10	CO4												
	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Point</th> <th>x-coordinate</th> <th>y-coordinate</th> <th>Class</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> <td>3</td> <td>A</td> </tr> <tr> <td>2</td> <td>4</td> <td>5</td> <td>A</td> </tr> </tbody> </table>			Point	x-coordinate	y-coordinate	Class	1	2	3	A	2	4	5	A
Point	x-coordinate			y-coordinate	Class										
1	2			3	A										
2	4	5	A												

		3	5	6	B		
		4	6	8	B		
		5	7	7	B		

Classify a new data point, P with coordinates (6, 5), using KNN with $k=3$.

SECTION-C
(2Qx20M=40 Marks)

Q 10	<p>a) Explain how video publishers leverage big data for audience engagement. How is AI used to analyze media trends and audience preferences?</p> <p>b) Define computer vision and discuss its importance. Explain how computer vision is used in medical imaging.</p>	20	CO3
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Q 11	<p>You are given a dataset with two features, $X1$ and $X2$, represented by the following points:</p> <table border="1"> <thead> <tr> <th>Data Point</th> <th>X1</th> <th>X2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>5</td> <td>6</td> <td>8</td> </tr> </tbody> </table> <p>Identify the Principal Components using PCA algorithm.</p> <p align="center">OR</p> <p>a) How can AI contribute to the governance of education programs?</p> <p>b) Discuss the benefits of using AI for education program management and oversight.</p>	Data Point	X1	X2	1	2	3	2	3	4	3	4	5	4	5	6	5	6	8	20	CO5
Data Point	X1	X2																			
1	2	3																			
2	3	4																			
3	4	5																			
4	5	6																			
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