K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai-22
(Autonomous College Affiliated to University of Mumbai)
Subject Code: ITC701   Subject Name: Artificial Intelligence & Data Science-II
Date: 01/12/2022

Nov – Dec 2022 B. Tech Program: Information Technology Examination: LY Semester: VII Course Code: ITC701 and Course Name: Artificial Intelligence & Data Science-II Duration: 2.5 Hours Max. Marks: 60				

Instructions:
(1)All questions are compulsory.
(2)Draw neat diagrams wherever applicable.
(3)Assume suitable data, if necessary.

		Max. Marks	CO	BT level
Q 1	Solve any six questions out of eight:	12		
i)	Explain unstructured Data with example.	2	CO1	U
ii)	Explain key factors of data visualization.	2	CO2	U
iii)	Discuss in brief Area Chart.	2	CO2	U
iv)	Discuss the advantages of Google Chart.	2	CO3	U
v)	Explain d3.js library.	2	CO3	U
vi)	Discuss Cognitive Computing.	2	CO4	U
vii)	Discuss applications of soft computing.	2	CO5	U
viii)	Discuss content-based recommendation systems.	2	CO6	U
Q.2	Solve any four questions out of six.	16		
i)	Demonstrate Google chart API in Airline industry.	4	CO3	A
ii)	Investigate the shortcomings of hard computing approach, tackled using soft computing approach.	4	CO5	C
iii)	Explain design of a Cognitive System.	4	CO4	U
iv)	Formulate collaborative filtering-based recommendation system for the recommendation of books as per the choice given by the user.	4	CO6	C
v)	Discuss spatial data applications in AI and DS.	4	CO1	U
vi)	Differentiate between static charts and dynamic charts with suitable example.	4	CO2	An
Q.3	Solve any two questions out of three.	16		
i)	Demonstrate chart animations for the Covid-19 application case study.	8	CO3	A

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ii)	Formulate and discuss fuzzy membership functions for washing machine case study.	8	CO5	C
iii)	Explain the process of applying advanced analytics to cognitive computing.	8	CO4	U
Q.4	Solve any two questions out of three.	16		
i)	Design and explain time series forecasting for suitable case study in detail.	8	CO6	C
ii)	Discuss using audio and video data in AI&DS applications with the help of suitable case study.	8	CO1	U
iii)	Examine the ways to add sematic information in the web page. Comment on at least four ways with the help of suitable charts.	8	CO2	An

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