Harcourt Butler Technical University
Kanpur

MID SEM

Branch	CSE/IT	Program	B.Tech
Course Name	Data Warehousing and Data Mining	Semester	VII
Course Code	EIT-463	Year	IV
Time: 1:00 Hr	Answer All Questions	Maximum Marks	15

Knowledge Level (KL)	K1:Remembering	K3:Applying	K5:Evaluating
	K2:Understanding	K4:Analyzing	K6:Creating

Note:.....

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Q.No	Questions	Marks	COs	KL
1	What is the difference between clustering and prediction?	3	CO3	K1
2	Write short notes on: a. K-nearest neighbor classifier b. Genetic algorithm	3	CO3	K2
3	Mention the time and space complexities of the following algorithms: a. Single link b. PAM c. Average Link d. CURE e. Complete Link f. DBSCAN	3	CO3	K4
4	Discuss k-means clustering algorithm in detail.	3	CO3	K2
5	Describe multilayer feed-forward Neural network in brief.	3	CO3	K1, K2

Course Outcomes	**CO1**	Understand importance of abstraction of Knowledge from unstructured sources at sufficient level. (Understand)
	CO2	Use of high level operational skills and real world case studies for knowledge discovery and data warehousing based principles. (Apply)
	CO3	Understand the areas of probability, statistics and machine learning algorithms which underpin the knowledge discovery enterprise. (Understand)
	CO4	Design data mining and data warehousing systems and solutions to meet user requirements and specifications. (Apply, Analyze)
	CO5	Compare and contrast OLAP and data mining as techniques for extracting knowledge from a data warehouse. (Evaluate)

	Harcourt Butler Technical University Kanpur			IInd MID SEM
Branch	CSE/IT			
Course Name	Software Testing	Program		B. Tech
Course Code	ECS 491	Semester		VII
Time: 1:00 Hr	Answer All Questions	Year		IV
Knowledge Level (KL)	K1: Remembering	K3: Applying	K5: Evaluating	Maximum Marks: 15
	K2: Understanding	K4: Analyzing	K6: Creating	

Note: Attempt All Questions

Q. No	Questions	Marks	COs	KL
1	What do you understand by the term integration testing? Which types of defects are uncovered during integration testing? What types of integration testing methods can be used to carry out integration testing of a large software product? Compare the merits and demits of these different integration testing strategies.	5	CO1	K1
2	What do you mean by regression testing? When is it carried out? Why regression testing is necessary? How are the regression test cases designed? How is regression testing performed?	5	CO4	K2
3	Explain acceptance testing. Suppose in order to estimate the number of latent errors in a program, you seed it with a hundred errors of different kinds. After testing the software using its full test set, you discover fifteen other errors. Estimate the number of latent errors in the software.	5	CO3	K3

Course Outcomes		
	CO1	Understand the various types and principles of Software Testing (Understand)
	CO2	Understand white box and black box testing. (Understand)
	CO3	Apply Integration, System, and Acceptance Testing. (Apply)
	CO4	Design Test selection & minimization for regression testing. (Apply)
	CO5	Analyze Test Management and Automation. (Apply)

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MID SEM-II

Branch	CSE/IT	Program	B. Tech
Course Name	MOBILE APPLICATION DEVELOPMENT	Semester	VII
Course Code	ECS-451	Year	2023-24
Time	1:00 Hr	Maximum Marks	15

Knowledge Level (KL)	**K1**: Remembering	**K3:** Applying	**K5**: Evaluating
	K2: Understanding	**K4**: Analyzing	**K6**: Creating

Note: Attempt all Questions

Q. No	Questions	Marks	COs	KL
1	What is the significance of Java in mobile application development, particularly for Android?	3	CO2	K2
2	Discuss the main features and capabilities of Android Studio.	3	CO2	K2
3	Discuss the challenges and considerations when integrating networking, OS, and hardware features into mobile applications.	3	CO3	K2
4	How can developers optimize mobile applications for performance and scalability?	3	CO4	K4
5	What security measures should be implemented in mobile applications to prevent unauthorized access?	3	CO4	K2

Course Outcomes	**CO1**	Understand technology and business trends impacting mobile applications. (Understand)
	CO2	Understand and implement mobile application development languages. (Understand, Apply)
	CO3	Understand the characterization and architecture of mobile applications. (Understand)
	CO4	Understand and design enterprise scale requirements of mobile applications. (Understand, Apply, Analyze)
	CO5	Design and develop mobile applications using application development framework. (Apply, Analyze)

	Harcourt Butler Technical University Kanpur			II MID SEM
Branch	FOOD TECHNOLOGY (Open Electives)		Program	B.Tech
Course Name	BASIC CONCEPT OF FOOD PROCESSING AND PRESERVATION		Semester	VII
Course Code	OFT 491		Year	2023-24
Time: 1.00 Hr	Answer All Questions		Maximum Marks	15
Knowledge Level (KL)	K1:Remembering	K3:Applying	K5:Evaluating	
	K2:Understanding	K4:Analysing	K6:Creating	

Note: Attempt all questions. All questions carry marks as shown.

Q. No	Questions	Marks	COs	KL
1	How does water activity affect food spoilage? Define Intermediate moisture food.	4	3	3
2	Illustrate various steps of canning for high acid foods and their significance. Differentiate clearly between drying and dehydration.	4	3	3
3	Explain preservation of foods by freezing, differentiate between slow and fast freezing of foods.	4	4	2
4	Discuss preservation of foods by using chemical preservatives. Differentiate Class I and Class II preservative.	3	4	2

Course Outcomes	CO1	Understand fundamental principles of food preservation	K2
	CO2	Understand the Basic concept of nutrients of food	K2
	CO3	Understand the principle of thermal processing and applying high temperature processing in food industry	K3
	CO4	Understand the principles of non-thermal preservation methods	K2
	CO5	Understand concepts of Food quality and role of total quality management system in food industry	K2