Hall Ticket Number :										

R-19

Code: 19DF4AT

M.C.A. IV Semester Regular Examinations July 2021

Big Data

Max. Marks: 60 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x12 = 60 Marks)

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			Marks	CO	Blooms Level
		UNIT–I			
1.	a)	State the need of Big Data. Describe the characteristics of Big Data.	7M	CO1	L1
	b)	List out the drivers for Big Data.	5M	CO1	L1
		OR			
2.		Identify and explain in detail about various Big Data Analytics applications.	12M	CO1	L2
		UNIT–II			
3.	a)	Justify the need and purpose of data discovery in Big Data.	6M	CO2	L3
	b)	Explain the scope of open-source technology for Big Data Analytics?	6M	CO2	L2
		OR			
4.		Describe Inter- and Trans-Firewall Analytics in detail.	12M	CO2	L2
		UNIT–III			
5.	a)	Discuss the Holistic view of analytics	6M	CO3	L3
	b)	Elaborate on Best practices for big data analytics	6M	CO3	L3
		OR			
6.		Analyze the role of using Deep Math, Science, and Computer Science in the process of Big Data	12M	CO3	L4
		UNIT–IV			
7.		Explain the Real-Time Architecture for conversations in Big Data with detailed description?	12M	CO4	L2
		OR			
8.		Summarize the Implementation of Big Data Analytics in brief.	12M	CO4	L4
		UNIT–V			
9.	a)	Illustrate Hadoop MapReduce with the help of an Example.	6M	CO5	L3
	b)	State the importance of Hadoop MapReduce.	6M	CO5	L2
		OR			
10.		List and mention the Building blocks of Hadoop MapReduce in brief?	12M	CO5	L4

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Hall Ticket Number :										

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Code: 19DF4DT

M.C.A. IV Semester Regular Examinations July 2021

Cloud Computing

Max. Marks: 60 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x12 = 60 Marks)

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			Marks	CO	Blooms Level
		UNIT–I			
1.	a)	What is a Cloud? Give different types of Clouds	6M	CO1	L2
	b)	Give the advantages and disadvantages of having the cloud	6M	CO1	L1
		OR			
2.	a)	Discuss the various services provided by cloud	6M	CO1	L1
	b)	What are the developments in cloud computing?	6M	CO1	L2
		UNIT–II			
3.	a)	What are the various schedules that can be collaborated in cloud?	6M	CO2	L2
	b)	How are projects managed and scheduled in a cloud? Write in brief.	6M	CO2	L2
		OR			
4.	a)	Write in brief about Group Projects and Events collaboration in cloud	6M	CO2	L1
	b)	How is communication in email centralized in cloud? Explain	6M	CO2	L2
		UNIT–III			
5.	a)	Give the uses of collaborating spreadsheets. How do you do it?	6M	CO3	L1
	b)	Discuss the uses of collaborating event management in a cloud? How it is done?	6M	CO3	L1
		OR			
6.	a)	How do you evaluate web mail services?	6M	CO3	L2
	b)	In a cloud how do you collaborate contact management?	6M	CO3	L1
		UNIT–IV			
7.	a)	Discuss how to evaluate online file storage.	6M	CO4	L1
	b)	Write about photo sharing communities.	6M	CO4	L1
		OR			
8.	a)	Write about online photo editing applications.	6M	CO4	L1
	b)	Write about book marking services.	6M	CO4	L1
		UNIT–V			
9.	a)	Give the application life cycle of Google App Engine	6M	CO5	L1
	b)	Write about the advanced computer services.	6M	CO5	L1
		OR			
10.	a)	Write about the amazon web services.	6M	CO5	L1
	b)	Give the architecture of Microsoft Windows Azure Platform.	6M	CO5	L1

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Hall Ticket Number :										

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Code: 19DF44T

M.C.A. IV Semester Regular Examinations July 2021

Data Warehousing & Data Mining

Max. Marks: 60 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x12 = 60 Marks)

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		Marks	CO	Blooms Level
	UNIT–I			
1.	Write a short notes on the following with examples a) Data Cubes b) Snow Flakes	12M	CO1	L1
	OR			
2.	Define data warehouse. Draw the architecture of data warehouse and explain the three tiers in detail?	12M	CO1	L3
	UNIT–II			
3.	What is aggregation? When we use aggregation in data warehousing? Give an example?	12M	CO2	L2
	OR			
4.	a) Explain the process of security, recovery and backup in data warehouse? b) What is the difference between testing and tuning data warehouse?	12M	CO2	L3
	UNIT–III			
5.	Explain about what are the issues to be considered during data integration?	12M	CO3	L3
	OR			
6.	Suppose a group of 12 sales price records has been sorted as follows: 5, 10, 11, 13, 15, 35, 50, 55, 72, 92, 204, 215. Partition them into three bins by each of the following methods: (a) equal-frequency (equal-depth) partitioning (b) equal-width partitioning	12M	CO3	L2
	UNIT–IV			
7.	Explain how to improve the efficiency of apriori algorithm with suitable example?	12M	CO4	L3
	OR			
8.	Explain about following terms with suitable examples a) Mining association rules in Large databases b) Measuring Central tendency	12M	CO4	L3
	UNIT–V			
9.	Explain about issues regarding classification and prediction?	12M	CO5	L3
	OR			
10.	Write a short notes on grid based clustering methods with example?	12M	CO5	L2

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Code: 19DF43T

M.C.A. IV Semester Regular Examinations July 2021

Python Programming

Max. Marks: 60 Time: 3 Hours

Answer *any five full questions* by choosing one question from each unit (5x12 = 60 Marks)

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			Marks	CO	Blooms Level
		UNIT–I			
1.	a)	List the salient features of python programming language	5M	CO1	L1
	b)	Summarize and explain different literals of Python.	7M	CO1	L2
		OR			
2.	a)	Contrast interactive mode and script mode of python environment with examples.	5M	CO2	L2
	b)	List all the available operators in python with example.	7M	CO3	L1
		UNIT–II			
3.	a)	Briefly explain Boolean Expressions in Python with examples.	6M	CO2	L2
	b)	Describe about local and global scope of variable in python.	6M	CO3	L2
		OR			
4.	a)	Develop a program to print the number of days in a given month by using multi-way selection statement.	6M	CO3	L3
	b)	Explain about different sequence operations in python with examples.	6M	CO3	L2
		UNIT–III			
5.	a)	Define function? Contrast keyword and positional arguments with example programs.	6M	CO1	L2
	b)	Describe about mapping functions in Dictionary using any example	6M	CO2	L2
		OR			
6.	a)	Write a neat notes on turtle graphics with suitable examples.	6M	CO3	L2
	b)	Demonstrate about object references and assignment of references with examples.	6M	CO3	L2
		UNIT–IV			
7.	a)	Demonstrate Exception handling programs in python with examples.	6M	CO4	L3
	b)	Differentiate Python module importing, loading and execution with examples.	6M	CO3	L2
		OR			
8.	a)	Define Dictionary. Describe in detail about methods of a dictionary.	6M	CO2	L2
	b)	Define set. Explain in detail about operations of a set.	6M	CO2	L2
		UNIT–V			
9.	a)	Define a recursive function. Develop a program to find factorial of a given number using recursion.	6M	CO3	L3
	b)	Describe about merge sort algorithm using recursion.	6M	CO4	L3
		OR			
10.	a)	Illustrate object oriented programming features with examples.	6M	CO5	L3
	b)	Describe about decision tree visualization with example program.	6M	CO4	L2

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Code: 19DF41T

M.C.A. IV Semester Regular Examinations July 2021

Software Engineering

Max. Marks: 60 Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 12 = 60 Marks)

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			Marks	CO	Blooms Level
		UNIT–I			
1.	a)	"Software Engineering is a Layard Technology" Justify	6M		5
	b)	List out the types of software myths	6M		1
		OR			
2.	a)	Summarize the attributes encountered in the vast majority of WebApps.	6M		2
	b)	What is agile process? List agility principles	6M		2
		UNIT–II			
3.	a)	Explain incremental process model and its advantages	6M		2
	b)	Discuss the structure of software requirements specification.	6M		2
		OR			
4.	a)	Write briefly about requirements elicitation and analysis.	6M		2
	b)	What is data modeling? Give 5 examples for data modeling.	6M		2
		UNIT–III			
5.	a)	What is architectural design? Illustrate architectural design process with an example.	6M		3
	b)	What do you understand by object-oriented design? Specify its advantages.	6M		2
		OR			
6.	a)	Briefly explain the design concepts.	6M		2
	b)	Discuss objects and classes in Object Oriented Design.	6M		2
		UNIT–IV			
7.	a)	What is automated static analysis and how it is used in verification and validation?	6M		3
	b)	What are the essential characteristics of tool used for test automation?	6M		2
		OR			
8.	a)	Explain about component testing.	6M		2
	b)	Illustrate how static verification is used in the clean room development process.	6M		4
		UNIT–V			
9.	a)	What are the different activities in project planning	6M		2
	b)	Identify top 5 risk items and risk management techniques for managing them?	6M		2
		OR			
10.	a)	Explain the scheduling of software project.	6M		2
	b)	Illustrate the principles of the COCOMO II model for algorithmic cost estimation.	6M		2

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Code: 19DF42T

M.C.A. IV Semester Regular Examinations July 2021

Unix & Network Programming

Max. Marks: 60 Time: 3 Hours

Answer *any five* full questions by choosing one question from each unit (5x12 = 60 Marks)

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			Marks	CO	Blooms Level
		UNIT–I			
1.		Explain the architecture of the UNIX operating system.	12M		
		OR			
2.		Illustrate grep, egrep and fgrep Commands	12M		
		UNIT–II			
3.	a)	Write shell script to calculate factorial of the given number.	6M		
	b)	List different file attributes and permissions.	6M		
		OR			
4.	a)	Give a brief description of shell Metacharacters.	6M		
	b)	Explain in detail about system calls for file process.	6M		
		UNIT–III			
5.		Explain exit, wait, waitpid system calls	12M		
		OR			
6.	a)	Briefly describe setjmp and longjmp Functions	6M		
	b)	Difference between fork and vfork system calls	6M		
		UNIT–IV			
7.	a)	Briefly describe kill, raise functions	6M		
	b)	Explain sigsetjmp and siglongjmp Functions	6M		
		OR			
8.		Define signal and Outline different signals.	12M		
		UNIT–V			
9.		Describe Interprocess Communication using Shared Memory	12M		
		OR			
10.		Implementation of Sockets Programming using UDP	12M		

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