R-15

Code: 5G475

IV B.Tech. I Semester Regular & Supplementary Examinations November 2019

Distributed Systems
(Information Technology)

Max. Marks: 70　　　　　　　　　　　　　　　　　　　　　　Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)

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UNIT–I

1. a) Define distributed system. Explain the examples of distributed systems.　8M

   b) Explain in brief, URL and HTTP.　6M

OR

2. a) Discuss the fundamental models of distributed systems.　7M

   b) Describe the different types of networks used to support distributed systems.　7M

UNIT–II

3. a) Explain about distributed object model.　7M

   b) Explain in brief, remote procedure call.　7M

OR

4. a) Differentiate between process and threads. Explain threads in distributed systems.　7M

   b) Illustrate operating system architecture in distributed systems.　7M

UNIT–III

5. Discuss in detail, Domain Name System.　14M

OR

6. Discuss in detail, routing overlays.　14M

UNIT–IV

7. a) Explain in brief, logical time and logical clocks.　6M

   b) Illustrate Chandy and Lamport's snapshot algorithm for determining global states of distributed systems.　8M

OR

8. Define distributed mutual exclusion. List and explain the algorithms for achieving mutual exclusion in distributed systems.　14M

UNIT–V

9. a) Explain with example, nested transaction.　7M

   b) Explain timestamp ordering in detail.　7M

OR

10. a) Define deadlock. Explain how distributed deadlock can be detected.　7M

    b) Explain shadow version technique for transaction recovery.　7M

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IV B.Tech. I Semester Regular & Supplementary Examinations November 2019
Enterprise Programming
(Common to CSE & IT)

Max. Marks: 70   Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)

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UNIT–I

1. a) In detail explanation to handle http request and http response?   7M

   b) What is Web Server? How do you install XAMPP/WAMPP Server into system? Explain   7M

OR

2. a) Define PHP? How do you print "Hello Enterprise Programming aspirants" in PHP?   4M

   b) Create a PHP script that demonstrates the usage of PHP   10M

UNIT–II

3. a) Develop a Program on PHP using all Arithmetic Operators and Logical Operators with suitable example?   10M

   b) Describe the Abstract Class and Methods in PHP?   4M

OR

4. a) Create a PHP script to demonstrate the usage of if-else and switch statements with suitable example   10M

   b) Importance of Destructors in PHP   4M

UNIT–III

5. a) Create a PHP script that create and retrieve a Cookie.   12M

   b) Difference between GET and POST methods in PHP   2M

OR

6. a) Create a PHP script that demonstrates the usage of PHP super global variable $_POST to collect Form data.   10M

   b) Write a PHP Program on Current Date and Time   4M

UNIT–IV

7. Create a registration Form with following text fields SId, Name, Address and a submit button. Write PHP code to insert the above values into a database table   14M

OR

8. a) Procs and Cons of Web Application Today's Scenario   4M

   b) How do you send Request to the Server using AJAX? Explain   10M

UNIT–V

9. a) Difference between PHP and AJAX   7M

   b) Write a PHP program to validate the form   7M

OR

10. a) Explain expanding and contracting the content in PHP with suitable examples   10M

    b) Discuss on Client Driven Communication   4M

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Code: 5G478

IV B.Tech. I Semester Regular & Supplementary Examinations November 2019

Object Oriented Analysis and Design

(Common to CSE & IT)

Max. Marks: 70   Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)

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UNIT–I

1.	a)	What is UML? Draw and explain different views of UML	7M
	b)	Discuss Software development life cycle with neat diagram	7M

OR

2.	a)	What is modeling? Explain object oriented modeling with neat diagram	7M
	b)	What are common mechanisms? Discuss	7M

UNIT–II

3.	a)	Describe different kinds of classifiers to build a model with diagrams	7M
	b)	What are relationships? Explain with examples	7M

OR

4.	a)	Design and explain a class diagram for library information system	7M
	b)	Explain common modeling techniques for object diagrams	7M

UNIT–III

5.	a)	Draw and explain interaction diagrams with examples	7M
	b)	What are the components of activity diagram? Explain with example	7M

OR

6.		Develop use case diagram for ATM and Discuss use case diagrams	14M

UNIT–IV

7.	a)	What are events and signals? Discuss	7M
	b)	Construct a state machine diagram for different objects in library information system	7M

OR

8.		What are Processes and threads? Explain the concept of Inter process communication	14M

UNIT–V

9.		Define component diagrams and how these component are helpful in designing Interfaces and APIs	14M

OR

10.	a)	What are deployment diagrams? Explain	7M
	b)	Explain documents of Library system	7M

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Code: 5G471

R-15

IV B.Tech. I Semester Regular & Supplementary Examinations November 2019
Cloud Computing
(Common to CSE & IT)

Max. Marks: 70   Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)

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UNIT–I

1. a) Discuss how cloud computing addressed some of the limitations of former technologies which have offered similar services.   7M

    b) Illustrate the usage of cloud as a service, by considering suitable applications.   7M

OR

2. a) Discuss the working of Microsoft Azure cloud with a neat block diagram. Discuss the role of CDN.   7M

    b) Justify the SLA is one of the main requirements in cloud computing, provide an example.   7M

UNIT–II

3. a) Give the palette of workflows coordination types, illustrate any three out of them with suitable real-world application.   7M

    b) Illustrate the use of cloud services in transportation industry.   7M

OR

4. a) Discuss in detail the working of Map-Reduce programming model for parallel computation. Give the word frequency count example for the same.   7M

    b) Illustrate the use of cloud services in manufacturing industry.   7M

UNIT–III

5. a) Define Virtualization. Discuss the role VMM in cloud computing virtualization.   7M

    b) Discuss the concept of layering, and role of various interfaces.   7M

OR

6. a) Explain how virtualization could become fatal for your organization by highlighting its darker side,   7M

    b) Explain the network optimization of the Xen hypervisor with a neat diagram.   7M

UNIT–IV

7. a) Discuss the application of control theory for task scheduling in cloud computing environment.   7M

    b) Explain in detail the working of utility-based model for cloud-based web services. 7M

OR

8. a) Give the theory behind start time fair queuing and borrowed virtual time.   7M

    b) Explain the working of fair queuing with all necessary equations to compute finish time and round number.   7M

UNIT–V

9. a) Discuss the organization and working of GFS.   7M

    b) Give the significant role of the following in cloud services:
        i.   Hadoop
        ii. Locks and Chubby   7M

OR

10. a) "Privacy is a major security concern in cloud services", justify by considering one of the popular applications which uses cloud, say, Facebook   7M

    b) Discuss in detail the security attacks possible over VMM.   7M

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IV B.Tech. I Semester Regular & Supplementary Examinations November 2019
Data Science and Big Data Analytics
(Information Technology)

Max. Marks: 70   Time: 3 Hours
Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)
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UNIT–I

1. a)	Explain the Domain-specific Life cycle.	7M
b)	List and explain the characteristics of a big data.	7M

OR

2. a)	Define data science. List and explain the behavioral characteristics of a data scientist	7M
b)	Give a brief note on Data Preparation for Modeling and Assessment.	7M

UNIT–II

3.	Explain the following:	
	a) Data Range,	
	b) Data Management	
	c) Data Mining	14M

OR

4. a)	List and explain the main functions of a database administrator.	7M
b)	Why concept hierarchies are useful in data mining? Explain	7M

UNIT–III

5. a)	Explain in brief about the issues in machine learning.	7M
b)	Define the problems faced in Decision Tree Learning	7M

OR

6. a)	How a learning system is designed? Discuss with an example.	7M
b)	Give a brief note on multi-dimensional scaling Graph Analytics.	7M

UNIT–IV

7. a)	Explain the Advantages and disadvantages of R.	7M
b)	Compare and contrast the R vs SAS Map Reduce/Hadoop.	7M

OR

8.	Briefly explain the Elegant FREE Version of Hadoop Window and MADlib functions.	14M

UNIT–V

9. a)	Illustrate the RainStor Big Data Analytics on Hadoop.	7M
b)	Describe the Netezza Customer Intelligence.	7M

OR

10. a)	Explain the Visualization for Investigative Analysis process	7M
b)	Write a short note on Big Sheets.	7M

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