

Hall Ticket Number :

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**R-15**

**Code: 5G471**

IV B.Tech. I Semester Regular Examinations November 2018

**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 various characteristics of network-centric computing and network-centric content. 7M
- b) By considering any service providers, give an account of usefulness of cloud computing services for today's world. 7M

**OR**

2. a) List and discuss major challenges faced by cloud computing services. 7M
- b) With a neat block-diagram explain the working of Microsoft Azure cloud services. 7M

**UNIT-II**

3. a) Propose a cloud application for management of health care industry. 7M
- b) Discuss the Zookeeper, as a coordinator based on a state machine model. 7M

**OR**

4. a) Discuss any three HPC applications which can be developed over cloud computing model. 7M
- b) Illustrate the working of MapReduce programming by considering an example. 7M

**UNIT-III**

5. a) Define virtualization. Why virtualization is an important requirement in cloud computing? 7M
- b) Write the block diagram of Xen hypervisor, and explain its working. 7M

**OR**

6. a) Explain hardware support for virtualization. 7M
- b) Compare full and para-virtualization models with respect to merits and demerits 7M

**UNIT-IV**

7. a) Discuss the working of two-level control architecture. 7M
- b) With the utility function  $U^i$  give the working of utility-based model for cloud-based web services. 7M

**OR**

8. a) Explain the process of coordination of specialized autonomic performance managers. 7M
- b) What are combinational auctions? Give the algorithm for pricing and allocation. 7M

**UNIT-V**

9. a) Compare and contrast storage models, file systems and databases. 7M
- b) Define trust. Explain the importance of trust in cloud computing services and its types. 7M

**OR**

10. a) Write GPFS configuration, and explain the working of general parallel file systems. 7M
- b) Discuss various threats and risks for Virtualization in cloud computing. 7M

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Hall Ticket Number :

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**R-15**

**Code: 5G474**

IV B.Tech. I Semester Regular Examinations November 2018

**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) What is Big Data? Explain the Data Storage and Analysis. 7M
- b) Explain the Data Analytics Life cycle in detail. 7M

**OR**

2. a) What makes Big Data Analytics different from analyzing a big database? Explain. 7M
- b) List and explain the technologies supporting Big Data analysis. 7M

**UNIT-II**

3. Explain the following:
  - a) Data Munging,
  - b) Wrangling
  - c) Cleaning14M

**OR**

4. a) List and explain the database system applications in detail. 7M
- b) Discuss the role of storage manager and query processor in big data analytics. 7M

**UNIT-III**

5. a) What is meant by machine learning? Why is it needed? Briefly discuss various issues in machine learning 7M
- b) Describe the Inductive Bias in Decision Tree Learning 7M

**OR**

6. a) Give a brief note on Page Rank with an example. 7M
- b) List and explain the various techniques of visualization & visual data analytics. 7M

**UNIT-IV**

7. a) Describe the R functions and programming in detail. 7M
- b) Explain the analyzing and exploring data with R. 7M

**OR**

8. Write a short note on the following:
  - a) R Graphics,
  - b) R Studio14M

**UNIT-V**

9. a) Discuss the Class Database Running Natively on Hadoop. 7M
- b) Illustrate the Biginsights. 7M

**OR**

10. a) Explain about Jigsaw in detail. 7M
- b) List and explain the design goals of InfoSphere Streams. 7M

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Hall Ticket Number :

**R-15**

**Code: 5G475**

IV B.Tech. I Semester Regular Examinations November 2018

**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) What is a distributed system and discuss some examples of it? 7M
- b) Explain the challenges for distributed systems. 7M

**OR**

2. a) Explain the architectural models. 7M
- b) Compare the types of networks used to support distributed systems. 7M

**UNIT-II**

3. a) Explain any 2 techniques used for communication between distributed objects. 7M
- b) Discuss case study of Java RMI. 7M

**OR**

4. a) Discuss the communication and invocation issues of Operating systems. 7M
- b) Describe the distributed file system requirements. 7M

**UNIT-III**

5. a) Write notes on i)name spaces ii)name resolution 7M
- b) Explain about Napster and its legacy. 7M

**OR**

6. a) Discuss about domain name system. 7M
- b) Illustrate routing overlays. 7M

**UNIT-IV**

7. a) Discuss about global states. 7M
- b) Explain any 2 algorithms used for distributed mutual exclusion. 7M

**OR**

8. a) Explain the methods used for synchronizing physical clocks. 7M
- b) Write notes on logical time and logical clocks. 7M

**UNIT-V**

9. a) Explain the use of locks in strict two-phase locking. 7M
- b) Write notes on deadlocks. 7M

**OR**

10. a) Explain about flat and nested distributed transactions. 7M
- b) Discuss about concurrency control in distributed transactions. 7M

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<b>R-15</b>
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**Code: 5G172**

IV B.Tech. I Semester Regular Examinations November 2018

**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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<b>UNIT-I</b>
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1. a) Explain the web server XAMPP? 7M
- b) Explain the web server WAMP? 7M

**OR**

2. a) Explain programming in a web environment XAMPP? 7M
- b) Explain programming in web environment WAMP? 7M

<b>UNIT-II</b>
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3. a) Explain Arrays in PHP with Example? 7M
- b) Explain Functions in PHP with Example? 7M

**OR**

4. a) Explain Extending class in PHP with Example? 7M
- b) Explain creation of instances using constructors in PHP? 7M

<b>UNIT-III</b>
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5. a) Discuss using of COOKIES with example? 7M
- b) Discuss using of sessions with example? 7M

**OR**

6. a) Explain Validating form input in PHP? 7M
- b) Explain preventing multiple submissions of a form? 7M

<b>UNIT-IV</b>
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7. a) Explain MVC Architecture? 7M
- b) Explain basic database concepts? 7M

**OR**

8. a) Explain HTTP Request and Response fundamentals in AJAX? 7M
- b) Explain XML HTTP Request Methods and properties? 7M

<b>UNIT-V</b>
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9. a) Explain client driven communication in AJAX & PHP? 7M
- b) Explain server side processing in AJAX & PHP? 7M

**OR**

10. a) Explain the GET Vs POST passing values in PHP & AJAX? 7M
- b) Explain the Form validation? 7M

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Hall Ticket Number :

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**R-15**

**Code: 5G478**

IV B.Tech. I Semester Regular Examinations November 2018

**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) Describe the importance of modeling. What are its principles? 7M
- b) What are building blocks of UML? Explain the kinds of relationships in UML 7M

**OR**

2. a) What are the approaches to model a software system? Explain Object oriented model. 7M
- b) Explain briefly conceptual model of UML. 7M

**UNIT-II**

3. a) What is classifier? Explain kinds of classifiers. 7M
- b) Explain the difference between forward and reverse engineering. 7M

**OR**

4. a) What is generalization? Illustrate with a neat diagram. 7M
- b) Explain object diagram and its properties. 7M

**UNIT-III**

5. a) What is an interface? Explain links and association with a diagram. 7M
- b) Define use case model. Explain use case diagram for a ATM machine. 7M

**OR**

6. a) Describe sequence diagram with a neat diagram. 7M
- b) Discuss the guidelines for the activity model. 7M

**UNIT-IV**

- 7 a) What is a signal? State the procedure to model families of signals. 7M
- b) Explain transition and self-transition with a diagram. 7M

**OR**

8. a) What is a state machine? Illustrate with a neat diagram. 7M
- b) Explain the importance of event trigger. 7M

**UNIT-V**

9. a) Show the common use of component diagram. 7M
- b) Explain how to organize nodes. 7M

**OR**

10. a) What is a node? Explain contrast node with components. 7M
- b) Categories the stereotypes that apply to components. 7M

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