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Question Paper Code: ACS011



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

MODEL QUESTION PAPER - II

B.Tech VII Semester End Examinations (Regular), November / December – 2019

Regulations: IARE-R16

CLOUD APPLICATION DEVELOPMENT

(COMPUTER SCIENCE AND ENGINEERING)

Time: 3 hours

Max. Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

1. a) Discuss the Benefits of cloud computing. Explain in detail about cloud models with the help of a neat diagram. [7M]
- b) Differentiate between Hybrid cloud and Public cloud. Discuss in detail about the platform as a service with a neat diagram. [7M]
2. a) Elaborate the Types of cloud computing. Discuss the open source private clouds with an example. [7M]
- b) Explain the Applications of cloud computing with suitable examples. Discuss in detail about the private cloud. [7M]

UNIT – II

3. a) Elaborate the programming model with a suitable example. Explain the importance of Cloud Architecture. [7M]
- b) Explain in detail about the NIST reference architecture. Outline the importance of architectural styles of cloud applications. [7M]
4. a) Differentiate between redundant, non-redundant in cloud computing, Discuss in detail about the multi-tier architectures. [7M]
- b) Discuss in detail about the Compute and data intensive. Explain the importance of Compute and data intensive. [7M]

UNIT – III

5. a) Explain in detail about Cloud resource. Explain in detail about Basics of virtualization with a suitable example [7M]
- b) Explain about types of virtualization techniques. Discuss various merits of virtualization with an example. [7M]
6. a) Elaborate the Virtual machines. Discuss about virtual machine hypervisor with suitable example. [7M]
- b) Differentiate between process vs system virtual machines .Explain the importance of the taxonomy of virtual machines. [7M]

UNIT – IV

7. a) Explain the importance of Cloud Resource Scheduling. Discuss mechanisms for resource management [7M]
- b) Elaborate the start time fair queuing with an example. Explain Map reduce in cloud computing. [7M]

8. a) Discuss in detail about fair queuing and cloud scheduling subject to deadlines with a suitable example. [7M]
- b) Elaborate the Cloud resource management with the help of a neat diagram. Discuss in detail about resource management and application scaling. [7M]

UNIT – V

9. a) Define Cloud Security. Discuss about privacy and privacy impacts assessments with a suitable example. [7M]
- b) Elaborate the Virtual security services. Discuss in detail about Multi-tenancy issues and security in VM. [7M]
10. a) Explain the importance of Virtualization system-specific attacks. Discuss the Virtualization system [7M]
- b) Discuss the Technologies for virtualization-based security enhancement with a suitable example. [7M]



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COURSE OBJECTIVES:

The course should enable the students to:

I.	Understand the concepts of cloud computing for developing the cloud applications
II.	Understand task scheduling algorithms and virtualization
III.	Analyze the security issues in cloud environments
IV.	Gain knowledge in the broad perspective of cloud architecture and model
V.	Analyze and understand the importance of various applications of cloud computing

COURSE OUTCOMES:

CO 1	Understand the concept of cloud computing and challenges
CO 2	Determine the cloud models with applications
CO 3	Analyze an ability to identify and evaluate the requirements of software product
CO 4	Understand the cloud resource management and scheduling
CO 5	Understand security issues and solve by clearing risks with security

COURSE LEARNING OUTCOMES:

Students, who complete the course, will have demonstrated the asking to do the following:

Sl. No.	Description
ACS011.01	Understand the cloud computing and related concepts
ACS011.02	Understand the key dimensions of the challenges of Cloud Computing
ACS011.03	Understand the cloud services of Amazon, Google, Azure online services.
ACS011.04	Develop the applications developments of Amazon web services
ACS011.05	Understand the Cloud architecture and programming model
ACS011.06	Describe the compute intensive model and data intensive model
ACS011.07	Determine the map reducing in cloud
ACS011.08	Describe the graph processing with example
ACS011.09	Determine programming models of MapReduce and other big data
ACS011.10	Understanding the cloud resource virtualization
ACS011.11	Describe the Emulation of CRV
ACS011.12	Determine the application virtualization, applying virtualization
ACS011.13	Understanding the Cloud Resource Management and Scheduling
ACS011.14	Determine cloud scheduling subject to deadlines
ACS011.15	Describe fairing with an example
ACS011.16	Understand the resource management and application scaling
ACS011.17	Describe the Cloud Security i.e., Risks, Privacy and Privacy impacts assessments
ACS011.18	Understand the Compliance issues
ACS011.19	Determine the how standards deal with cloud services and virtualization
ACS011.20	Describe compliance for the Cloud provider vs compliance for the customer.

MAPPING OF SEMESTER END EXAMINATION TO COURSE LEARNING OUTCOMES:

SEE Question Number		COURSE LEARNING OUTCOME		Course Outcomes	Blooms Taxonomy Level
1	a	ACS011.01	Understand the cloud computing and related concepts	CO 1	Understand
	b	ACS011.02	Understand the key dimensions of the challenges of Cloud Computing	CO 2	Remember
2	a	ACS011.03	Understand the cloud services of Amazon, Google, Azure online services.	CO 3	Remember
	b	ACS011.04	Develop the applications developments of Amazon web services	CO 1	Understand
3	a	ACS011.08	Understand the Cloud architecture and programming model	CO 4	Remember
	b	ACS011.07	Describe the compute intensive model and data intensive model	CO 4	Remember
4	a	ACS011.08	Determine the map reducing in cloud computing with an example and mention its applications	CO 1	Understand
	b	ACS011.10	Describe the graph processing in cloud computing with a suitable diagram and understand cloud graph.	CO 3	Remember
5	a	ACS011.11	Determine programming models of pregl and other big data	CO 2	Remember
	b	ACS011.14	Understanding the cloud resource virtualization	CO 4	Understand
6	a	ACS011.15	Describe the Emulation of CRV	CO 1	Remember
	b	ACS011.13	Determine the application virtualization, applying virtualization	CO 5	Understand
7	a	ACS011.16	Understanding the Cloud Resource Management and Scheduling	CO 3	Remember
	b	ACS011.17	Determine cloud scheduling subject to deadlines	CO 4	Remember
8	a	ACS011.20	Describe fairing with an example	CO 2	Understand
	b	ACS011.18	Understand the resource management and application scaling	CO 3	Understand
9	a	ACS011.19	Describe the Cloud Security i.e., Risks, Privacy and Privacy impacts assessments	CO 4	Understand
	b	ACS011.20	Understand the Compliance issues in cloud computing	CO 2	Remember
10	a	ACS011.19	Determine the how standards deal with cloud services and virtualization	CO 4	Understand
	b	ACS011.19	Describe compliance for the Cloud provider vs compliance for the customer.	CO 5	Remember

Signature of Course Coordinator

HOD, CSE