



Roll No.

**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING**

**TEST - 1**

**Even Semester:** 2018-19

**Course Code:** CSE 306

**Course Name:** Cloud Computing

**Programme & Sem:** B.Tech (DE) & VIII Sem (Group-I)

**Date:** 06 March 2019

**Time:** 1 Hour

**Max Marks:** 40

**Weightage:** 20%

**Instructions:**

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of 3 parts.

**Part A**

Answer **all** the Questions. **Each** question carries **four** marks. (3Qx4M=12)

1. Cloud computing has some interesting characteristics that bring benefits to both cloud service consumers (CSCs) and cloud service providers (CSPs). List and explain these characteristics.
2. Web is the primary interface through which cloud computing delivers its services. Justify.
3. Explain the pros and cons of Virtualization.

**Part B**

Answer **all** the Questions. **Each** question carries **six** marks. (3Qx6M=18)

4. Write a short note on
  - i. Operating System Level Virtualization
  - ii. Application Level Virtualization
5. Define Hypervisor. Explain with graphical representation, the two types of hypervisors.
6. Explain Machine Reference Model of Execution Virtualization with a neat diagram.

**Part C**

Answer the Question. Question carries **ten** marks. (1Qx10M=10)

7. With a neat diagram explain VMware's End User Virtualization (VMWare Workstation Architecture) and Server Virtualization (VMWare ESXi Server Architecture).



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**PRESIDENCY UNIVERSITY  
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SCHOOL OF ENGINEERING**

**TEST - 2**

**Even Semester:** 2018-19

**Course Code:** CSE 306

**Course Name:** Cloud Computing

**Program & Sem:** B.Tech & VIII Sem (DE) Group-I

**Date:** 16 April 2019

**Time:** 1 Hour

**Max Marks:** 40

**Weightage:** 20%

**Instructions:**

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of three parts.

**Part A**

Answer **all** the Questions. **Each** question carries **four** marks. (3Qx4M=12)

1. Identify the limitations of public cloud and private cloud. Describe how they have been overcome in hybrid cloud model.
2. Discuss the Service Life Cycle in Aneka Container with a neat diagram.
3. List and explain the classifications of Platform-as-a-Service implementations.

**Part B**

Answer **all** the Questions. **Each** question carries **six** marks. (3Qx6M=18)

4. Explain the Cloud Computing architecture (with a neat diagram), a layered view covering the entire stack of resources.
5. Explain the components of Infrastructure-as-a-Service solution with a neat diagram.
6. Explain the characteristics of Fabric services in Aneka.

**Part C**

Answer **any one** Question. The question carries **ten** marks. (1Qx10M=10)

7. Explain Infrastructure and Logical organization of building Aneka Clouds.

**OR**

8. Explain Aneka Framework Overview with a neat diagram. Describe the characteristics of PAL in Aneka.



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**PRESIDENCY UNIVERSITY  
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**SCHOOL OF ENGINEERING**

**END TERM FINAL EXAMINATION**

**Even Semester:** 2018-19

**Course Code:** CSE 306

**Course Name:** Cloud Computing (DE)

**Program & Sem:** B.Tech & VIII Sem (Group-I)

**Date:** 23 May 2019

**Time:** 3 Hours

**Max Marks:** 80

**Weightage:** 40%

**Instructions:**

- (i) Read the questions properly and answer accordingly.
- (ii) Question paper consists of three parts.

**Part A**

Answer **all** the Questions. **Each** question carries **one** mark.

(20Qx1M=20M)

**1.**

- (i) Which of the following is/are NOT a property of Distributed Computing?
  - (a) Load Sharing
  - (b) Broad Network Access
  - (c) Pay on Usage
  - (d) Fault Tolerance
- (ii) Cloud Computing is a combination of Distributed Computing and Utility Computing.
  - (a) True
  - (b) False
- (iii) Which of the following risk (/s) is/are present in Utility Computing?
  - (a) Security on Data
  - (b) SLA Definition
  - (c) Backup of Data
  - (d) None of the above
- (iv) Virtual machines are costlier than actual machines.
  - (a) True
  - (b) False
- (v) Which of the following is/are SaaS?
  - (a) Google App Engine
  - (b) Aneka
  - (c) Amazon EC2
  - (d) Google Docs
- (vi) SOAP is a format for sending messages and is also called as \_\_\_\_\_
  - (a) Network Protocol
  - (b) Data Transfer Protocol
  - (c) Communication Protocol
  - (d) XML description Protocol

- (vii) Microsoft Azure supports hybrid cloud platform.  
The statement is:  
(a) True  
(b) False
- (viii) \_\_\_\_\_ is the negotiation of the resources through an agent to ensure that the necessary resources are available at the right time to complete the objectives  
(a) Resource estimation  
(b) Resource brokering  
(c) Resource scheduling  
(d) None of the above
- (ix) \_\_\_\_\_ is a complete operating environment with applications, management, and the user interface.  
(a) IaaS  
(b) PaaS  
(c) SaaS  
(d) All of the above
- (x) What is the solution to overcome problems in full software-based virtualization?  
(a) Hardware Virtualization  
(b) Desktop Virtualization  
(c) Processor Virtualization  
(d) Application Virtualization
- (xi) In a \_\_\_\_\_ scheme, the VM is installed as a Type 1 Hypervisor directly onto the hardware.  
(a) Para virtualization  
(b) Full virtualization  
(c) Emulation  
(d) None of the above
- (xii) \_\_\_\_\_ model consists of the particular types of services that you can access on a cloud computing platform.  
(a) Application  
(b) Deployment  
(c) Service  
(d) None of the above
- (xiii) Point out the correct statement :  
(a) Platforms can be based on specific types of development languages, application frameworks, or other constructs  
(b) SaaS is the cloud-based equivalent of shrink-wrapped software  
(c) SaaS may be succinctly described as software that is deployed on a hosted service  
(d) All of the above
- (xiv) Dynamic content presented in Google \_\_\_\_\_ crawling isn't normally indexed.  
(a) AJAX  
(b) Java  
(c) JavaScript  
(d) All of the mentioned
- (xv) Amazon \_\_\_\_\_ cloud-based storage system allows you to store data objects ranging in size from 1 byte up to 5GB.  
(a) S1  
(b) S2  
(c) S3  
(d) S4

- (xvi) An application that needed \_\_\_\_\_ storage alone might not benefit from a cloud deployment at all.  
(a) online  
(b) offline  
(c) virtual  
(d) all of the mentioned
- (xvii) Which is the most popular NoSQL database for scalable big data store with Hadoop?  
(a) Mongo DB  
(b) Cassandra  
(c) HBase  
(d) None of the above
- (xviii) \_\_\_\_\_ part of the MapReduce is responsible for processing one or more chunks of data and producing the output results  
(a) Map task  
(b) Mapper  
(c) Task execution  
(d) All of the mentioned
- (xix) Which resources are typically provided by an IaaS cloud computing delivery model?  
(a) Applications  
(b) Middleware software stacks  
(c) Virtual Machines  
(d) Virtual Private Networks
- (xx) Although the Hadoop framework is implemented in Java, MapReduce applications need not be written in  
(a) C  
(b) Java  
(c) C#  
(d) None of the mentioned

### Part B

Answer **all** the Questions. **Each** question carries **six** marks. (6Qx6M=36M)

2. Explain Application Development, Infrastructure and System development helpful in building Cloud Computing environments.
3. Explain the characteristics of virtualized environments with a neat diagram.
4. Explain the Cloud Computing architecture, a layered view covering the entire stack of resources.
5. What are foundation services in Aneka container? Explain the centralized file storage and distributed file system types of storage management.
6. Explain the parameter sweep application model with an example. Specifically mention the template task in the example.
7. List and explain benefits of XML.

### Part C

Answer **any two** Questions. **Each** question carries **twelve** marks. (2Qx12M=24M)

8. a. With a neat diagram, explain Google Big Table.  
b. Differentiate between high-performance computing, high-throughput computing and many-task computing, with suitable examples.
9. Explain with a neat diagram, Runtime Support for execution of MapReduce Jobs.
10. What is SQL Azure? Explain with neat diagram SQL Azure architecture.