

Enrollment No.....



Faculty of Engineering  
End Sem (Odd) Examination Dec-2022  
CS3EL10 Cloud Computing

Programme: B.Tech.

Branch/Specialisation: CSE All

**Duration: 3 Hrs.****Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. \_\_\_\_\_ describes a cloud service that can only be accessed by a limited number of people. **1**  
 (a) Data center (b) Private cloud  
 (c) Virtualization (d) Public cloud
- ii. Which of the following can be considered PaaS offering? **1**  
 (a) Google maps (b) Gmail  
 (c) Google earth (d) Google play store
- iii. Which of the following type of virtualization is also characteristic of cloud computing? **1**  
 (a) Storage (b) Application (c) CPU (d) All of these
- iv. An operating system running on a Type \_\_\_\_\_ VM is a full virtualization. **1**  
 (a) 1 (b) 2 (c) 3 (d) All of these
- v. \_\_\_\_\_ offering provides the tools and development environment to deploy applications on another vendor's application. **1**  
 (a) PaaS (b) IaaS (c) CaaS (d) All of these
- vi. The technology used to distribute service requests to resources is referred to as- **1**  
 (a) Load performing (b) Load scheduling  
 (c) Load balancing (d) None of these
- vii. Using a cloud provider for security services is always- **1**  
 (a) Cheaper than doing it on-premise  
 (b) More secure than doing it on-premise  
 (c) The right thing to do  
 (d) A way to impress your boss

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- viii. To find the best security-as-a-service offering for your organization- **1**  
 (a) Ask the vendor what they recommend  
 (b) Assess your requirements, do a risk assessment and a cost/benefit analysis of the options  
 (c) Find the cheapest monthly option and use whatever is offered with that service  
 (d) Ask your peers and do exactly what they're doing
- ix. \_\_\_\_\_ serves as a PaaS vendor within Google App Engine system. **1**  
 (a) Google (b) Amazon (c) Microsoft (d) Azure
- x. Which uses platform and software as a service? **1**  
 (a) AWS (b) Google chrome  
 (c) Hypervisor (d) Openstack
- Q.2 Attempt any two:
- i. What are the essential characteristics of cloud computing as per NIST? **5**  
 Explain each of them.
- ii. How to do ECG analysis using the cloud? Explain with a diagram. **5**
- iii. Define cloud deployment model with suitable diagram and working. **5**
- Q.3 i. What is the need of compute virtualization? Differentiate between a virtualized and non-virtualized machine. **4**  
 ii. How to achieve full virtualization? List some advantages and disadvantages of full virtualization. **6**
- OR iii. Write short note on- **6**  
 (a) Cloud interoperability (b) Cloud broker
- Q.4 i. What are DRaaS services in the cloud? Explain types of DRaaS. **4**  
 ii. Define business continuity plan with suitable examples and diagrams. **6**
- OR iii. What is BaaS in the cloud? How ease of recovery, affordability services are useful in a cloud environment? **6**
- Q.5 i. Define the following in brief: **4**  
 (a) Vulnerability assessment (b) Security architecture
- ii. List various security issues in cloud. Explain each of them with diagram and example. **6**
- OR iii. Define ways to secure virtual machines and data from the outside. **6**

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- Q.6 Write short note on any two:
- i. AWS **5**
- ii. Xen hypervisor **5**
- iii. Open stack **5**

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## Marking Scheme

### CS3EL10 Cloud Computing

- Q.1 i. \_\_\_\_\_describes a cloud service that can only be accessed by a limited number of people. **1**  
 (a) Private cloud
- ii. Which of the following can be considered PaaS offering? **1**  
 (a) Google Maps
- iii. Which of the following type of virtualization is also characteristic of cloud computing? **1**  
 (d) All of these
- iv. An operating system running on a Type\_\_\_\_\_VM is a full virtualization. **1**  
 (a) 1
- v. \_\_\_\_\_offering provides the tools and development environment to deploy applications on another vendor's application. **1**  
 (b) IaaS
- vi. The technology used to distribute service requests to resources is referred to as: **1**  
 (c) Load balancing
- vii. To find the best security-as-a-service offering for your organization: **1**  
 (b) Assess your requirements, do a risk assessment and a cost/benefit analysis of the options
- viii. Using a cloud provider for security services is always: **1**  
 (b) More secure than doing it on-premise
- ix. \_\_\_\_\_ serves as a PaaS vendor within Google App Engine system. **1**  
 (a) Google
- x. Which uses platform and software as a service? **1**  
 (a) AWS

- Q.2 Attempt any two: **5**
- i. Characteristics of cloud computing as per NIST **5**  
 1 mark for each
- ii. ECG analysis using the cloud **5**  
 Diagram. 3 marks  
 2 marks
- iii. Define cloud deployment model **5**  
 Diagram 2 marks  
 Working 1 mark

- Q.3 i. Need of compute virtualization **4**  
 2 marks

- Differentiate between a virtualized and non-virtualized machine  
 Four difference 0.5 mark for each **2 marks**
- ii. To achieve full virtualization **6**  
 Advantages 4 marks  
 Disadvantages of full virtualization. 1 mark  
 1 mark
- OR iii. Write short note on- **6**  
 (a) Cloud interoperability 3 marks  
 (b) Cloud broker 3 marks
- Q.4 i. DRaaS services in the cloud **4**  
 Types of DRaaS. 2 marks
- ii. Define business continuity plan **6**  
 Examples 2 marks  
 Diagrams 2 marks
- OR iii. BaaS in the cloud **6**  
 Useful in a cloud environment 4 marks  
 2 marks
- Q.5 i. Define the following in brief: **4**  
 (a) Vulnerability assessment 2 marks  
 (b) Security architecture 2 marks
- ii. Four security issues in cloud **6**  
 Diagram 4 marks  
 Example. 1 mark  
 1 mark
- OR iii. Three ways to secure virtual machines **6**  
 Three ways data from the outside. 3 marks  
 3 marks
- Q.6 Write short note on any two: **5**
- i. AWS **5**
- ii. Xen hypervisor **5**
- iii. Open stack **5**

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