

(2½ Hours)

[Total Marks: 75]

- N. B.: (1) All questions are compulsory.  
(2) Make suitable assumptions wherever necessary and state the assumptions made.  
(3) Answers to the same question must be written together.  
(4) Numbers to the right indicate marks.  
(5) Draw neat labeled diagrams wherever necessary.  
(6) Use of Non-programmable calculators is allowed

**Q1. Attempt any three of the following:ing.**

**15 marks**

- Explain the different phenomenon that has gained an interest towards virtualization technologies.
- Differentiate between Public cloud and Private cloud.
- Discuss Cloud Computing threats and challenges.
- What is a Web service? Explain the different types of web services.
- List Computing platforms and technologies and explain one in detail.

**Q.2 Attempt any three of the following:ing**

**15 Marks**

- What are the economics of the cloud? Explain in detail.
- Describe the Open challenges of cloud computing?
- Explain Additional considerations for cloud security in detail?
- What is Microsoft Azure Cloud? Give some key services offered by Azure.
- Identify Cloud delivery Models and explain each with examples?

**Q.3. Attempt any three of the following:**

**15 Marks**

- What is a failover system, and how does it ensure business continuity in a cloud environment?
- How does an SLA management system help businesses ensure that their cloud service providers meet their service level agreements?
- How does identity and access management (IAM) help businesses control and manage user access to cloud resources and applications?
- What is the purpose of an automated scaling listener in a cloud environment?
- What are hardened virtual server images, and how do they help businesses create secure and reliable cloud environments?

**Q4. Attempt any three of the following:ing**

**15 marks**

- a. Explain workload distribution architecture.
- b. Explain elastic resource capacity architecture.
- c. Write a short note on service load balancing architecture.
- d. Explain hypervisor clustering architecture.
- e. Explain cloud balancing architecture.

**Q. 5 Attempt any three of the following**

**15 marks**

- a. Differentiate IaaS, PaaS, and SaaS.
- b. Explain Cloud Usage Cost Metrics.
- c. Explain Service Availability Metrics
- d. Explain Service Scalability Metrics.
- e. Explain SaaS. Explain the Features and Benefits of SaaS Cloud Computing Services.

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