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Sr. No 016701

December 2023  
B.Tech (CE(DS)/CSE) VII SEMESTER  
Basics of Cloud Computing (PEC-IT-I-703)

Time: 3 Hours

Max. Marks: 75

- Instructions:**
1. It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.
  2. Answer any four questions from Part -B in detail.
  3. Different sub-parts of a question are to be attempted adjacent to each other.

**PART -A**

- Q1 (a) Define Cloud Computing. (1.5)  
(b) Define On Demand Computing. (1.5)  
(c) Explain Service Oriented Architecture (SOA). (1.5)  
(d) What is the full form of VMM? (1.5)  
(e) What is the full form of CSA? (1.5)  
(f) Name any two Access control mechanisms/protocols? (1.5)  
(g) What is vendor lockin? (1.5)  
(h) What do you understand by Data Intensive Computing? (1.5)  
(i) Name any two SaaS providers? (1.5)  
(j) What is federated identity management (FIM)? (1.5)

**PART -B**

- Q2 (a) Describe Service Oriented Architecture (SOA) and discuss its advantages and disadvantages. (5)  
(b) Write down all the characteristics of Cloud Computing. (10)
- Q3 (a) Explain the SPI framework for cloud computing. (5)  
(b) Differentiate between Public and Private Cloud. (5)  
(c) Differentiate between multi cloud and inter cloud. (5)
- Q4 (a) Explain Map-reduce Programming model in detail with proper example. (10)  
(b) What is GPS? Draw its architecture. (5)
- Q5 (a) What is Virtualization? How can virtualization be maintained at different levels in cloud environment? (5)  
(b) What are Hypervisors? Explain its type with proper diagram (10)
- Q6 (a) Draw and explain the shared security responsibility model in cloud (5)  
(b) What do you understand by IAM in cloud? Write three main components of IAM also explain the life cycle of identity with proper diagram. (10)

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- Q7 (a) What is the full form of IPC? Explain in brief different stages of life cycle approach for IPC. (5)
- (b) What is Privacy? Explain the data life cycle model related to Privacy in Cloud. (5)
- (c) What do you understand by GRC? Explain the key components of GRC along with the diagram. (5)

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TABLE A

- Q1 (a) Define Cloud Computing. (1.5)
- (b) Define On Demand Computing. (1.5)
- (c) Explain Service Oriented Architecture (SOA). (1.5)
- (d) What is the full form of VMWare? (1.5)
- (e) What is the full form of CSA? (1.5)
- (f) Name any two Access control mechanisms/protocols. (1.5)
- (g) What is vendor lock-in? (1.5)
- (h) What do you understand by Data intensive Computing? (1.5)
- (i) Name any two SaaS providers. (1.5)
- (j) What is federated identity management (FIM)? (1.5)

TABLE B

- Q2 (a) Describe Service Oriented Architecture (SOA) and discuss its advantages and disadvantages. (10)
- (b) Write down all the characteristics of Cloud Computing. (10)
- Q3 (a) Explain the SPI framework for cloud computing. (5)
- (b) Differentiate between Public and Private Cloud. (5)
- (c) Differentiate between multi cloud and hybrid cloud. (5)
- Q4 (a) Explain how to reduce PaaS security issues in detail with proper example. (10)
- (b) What is GRC? Draw its architecture. (5)
- Q5 (a) What is Virtualization? How can virtualization be maintained at different levels in cloud environment? (10)
- (b) What are hypervisors? Explain its type with proper diagram. (10)
- Q6 (a) Draw and explain the shared security responsibility model in cloud. (5)
- (b) What do you understand by IAM in cloud? Write three main components of IAM also explain the life cycle of identity with proper diagram. (10)

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