

**602205**

**May 2024**

**M.C.A. II SEMESTER  
CLOUD COMPUTING  
(MCA-20-110)**

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**

1. (a) Define parallel Computing. (1.5)
- (b) Name any two services provided by Google App Engine. (1.5)
- (c) What is XaaS? (1.5)
- (d) What is Community Cloud? (1.5)
- (e) Define Multitenancy. (1.5)

- (f) Name *three* core capabilities of Cloud Security. (1.5)
- (g) What do you understand by cloud monitoring? (1.5)
- (h) Define Autonomic Computing. (1.5)
- (i) What are Mashups? (1.5)
- (j) What is Migration? Name its types. (1.5)

**PART-B**

- 2. (a) Write down all the characteristics of Cloud Computing. (10)
- (b) Elaborate the three types of cloud service models. (5)
  
- 3. (a) What is Virtualization? Explain its different types. (8)
- (b) What are Hypervisors? Explain with diagram its two basic types. (7)
  
- 4. (a) Draw and explain Map Reduce model with proper example. (7)
- (b) Explain Hadoop Distributed File System (HDFS) architecture in detail. (8)
  
- 5. (a) What are web services? Explain AJAX in detail. (5)
- (b) Explain the multi schema approach of data in cloud. (10)
  
- 6. (a) What is the role of Identity and Access Management (IAM) in cloud security? (5)

- (b) What are virtual threats? Write and explain its 3 levels. (5)
- (c) What is Load balancing in cloud QoS? (5)

7. Differentiate between :

- (i) SOAP and REST.
- (ii) BigTable and Hbase.
- (iii) Public and Private Cloud. (15)