Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 10846

M.C.A. DEGREE EXAMINATIONS, APRIL/MAY 2023

Second Semester

MC 4203 – CLOUD COMPUTING TECHNOLOGIES

(Regulations 2021)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Distributed Systems.

2. Draw a neat sketch to represent the principle of Remote Procedure Call between a client and a server program.

3. Define elasticity in Cloud.

4. What is meant by On Demand Provisioning?

5. List out the five major actors of the NIST Cloud Computing reference architecture.

6. Mention any four Cloud Storage Providers.

7. Summarize the benefits of virtualization.

8. Highlight the types of virtualization and map them with their objectives.

9. Define Microservices.

10. What are the core elements of DevOps?

PART B — (5 × 13 = 65 marks)

11. (a) Explain the brief about the classification of distributed computing systems.

Or

(b) Explain the concept of logical clocks and their importance in distributed systems.

12. (a) Illustrate the differences between On-premise Environment and Cloud Computing Environment.

Or

(b) Illustrate the principles of Parallel and Distributed Computing.

13. (a) With a neat sketch, explain the different Deployment Models of Cloud computing.

Or

(b) With a neat sketch, explain the different Service Models of Cloud Computing.

14. (a) Describe the concept of Desktop Virtualization with necessary diagrams.

Or

(b) Describe the concept of Server Virtualization with necessary diagrams.

15. (a) Identify the steps involved in deploying and maintaining Microservices.

Or

(b) Enumerate the different phases of life cycle of DevOps.

PART C — (1 × 15 = 15 marks)

16. (a) As a data center administrator, you are responsible to carry out the maintenance, operations, infrastructure design and management. If a primary computer system fails in the data center, elaborate the steps that must be carried out to overcome the failure. Illustrate the same with a neat sketch.

Or

(b) Elaborate the working of MapReduce with an example.

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