



MCA DEGREE EXAMINATIONS: NOV/DEC 2022

(Regulation 2020)

Third Semester

MASTER OF COMPUTER APPLICATIONS

P20CAI3203: Cloud Application Development

COURSE OUTCOMES

- CO1:** Design and develop elegant and flexible cloud software solutions.
- CO2:** Manage and deploy a cloud-based application.
- CO3:** Analyze a real-world problem and develop a cloud-based software solution.
- CO4:** Evaluate the deployment of web services from cloud architecture.
- CO5:** Evaluate the security issues related to the development of cloud applications.
- CO6:** Develop services using cloud computing.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

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| 1. Define cloud computing. | CO1 [K ₂] |
| 2. List any four security benefits of cloud computing. | CO1 [K ₂] |
| 3. Discuss about any four web applications provided by a cloud service provider. | CO2 [K ₁] |
| 4. Compare any two browsers in the aspect of security, usability, and availability. | CO2 [K ₁] |
| 5. What is storage as a service? Give an example. | CO3 [K ₂] |
| 6. What is a web service? Give suitable examples. | CO3 [K ₂] |
| 7. What is sandboxing? | CO4 [K ₁] |
| 8. Draw the architecture of a generic web application. | CO5 [K ₂] |
| 9. What is runtime deployment? | CO5 [K ₂] |
| 10. What is privacy with respect to a cloud environment? | CO5 [K ₂] |

PART B (6 x 5 = 30 Marks)

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| 11. List and explain about the various cloud services with examples. | CO1 [K ₂] |
| 12. Discuss about the right hardware and infrastructure requirements to access the cloud. | CO2 [K ₂] |

13. What are the design principles that are to be followed by major cloud storage providers? CO3 [K₂]
14. ACME is one of the most famous chocolate and ranks third among worldwide chocolate and confectionery producers. It was founded in the year 2000.
Challenge: ACME is sold in every departmental store and is known for its quality. Once the business grew certain issues arose. It needs data storage, processing and analysis system for the vast customer database. There was a huge gap between the company and the people who bought its chocolates because the company relied on the data given by the sales outlets. ACME wanted to create a digital ecosystem where there was a point of contact with its customers and also a foundation for an innovative, data-driven marketing strategy.
Give your technical advice to ACME to further increase the quality of its service to its customers. CO4 [K₃]
15. How does clustering and replication add availability and reliability to cloud databases? CO5 [K_L]
16. How is network security provisioned in a cloud environment? CO6 [K₂]

Answer any FIVE Questions

PART C (5 x 10 = 50 Marks)

17. Justify the need for cloud computing. CO1 [K₄]
18. Discuss about the platforms and the web APIs used in access the cloud applications. CO2 [K₂]
19. Explain about the application and client standards that make cloud computing possible. CO3 [K₂]
20. Give a brief walkthrough of any four generic application development facility offered by cloud service providers. CO4 [K₂]
21. Create a machine image and develop a virtual instance based on it. CO5 [K₃]
22. Explain about the various ways by which a host in cloud is secured. CO6 [K₂]
