

# Question Paper

Exam Date & Time: 27-Nov-2023 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal School of Information Sciences (MSIS), Manipal  
First Semester Master of Engineering - ME (Cloud Computing) Degree Examination - November / December 2023  
**Cloud Architecture and Management [CDC 5102]**

**Marks: 100**

**Duration: 180 mins.**

**Monday, November 27, 2023**

**Answer all the questions.**

- 1) From the Pizza business model perspective interpret on-premises, IaS, PaS, SaS in consideration of responsibility of the service provider and consumer. (BL:4, CO: 1, PO: 4) (10)
- 2) Distinguish 3 different categories of cloud computing (BL:3, CO: 1, PO: 4) (10)
- 3) Demonstrate the difference between OS assisted virtualization and hardware assisted virtualization along with neat diagram (BL:4 CO: 2, PO: 1) (10)
- 4) Relate the difference between containerization and virtualization with a neat diagram (BL: 3, CO: 2, PO: 1) (10)
- 5) Demonstrate 4 different network virtualization components along with its usage in different scenario (BL:4, CO: 3, PO: 3) (10)
- 6) Demonstrate the server consolidation with 3-tier web architecture case study discussion (BL:4, CO: 3, PO: 3) (10)
- 7) Interpret the process steps involved in implementing the web services with neat diagram (BL:4, CO: 4, PO: 5) (10)
- 8) Distinguish the benefits of SLA along with its various types (BL: 3, CO: 4, PO: 5) (10)
- 9) Differentiate the difference between service partitioning and resource partitioning along with the neat diagram. (BL: 3, CO: 3, PO: 3) (10)
- 10) Use the KPMG phased approach to building the business case for given scenario: Founded in 2003, Alpha Mobile develops communication services focused on the integration of corporate SMS (short message service). The organization leads the ranking of the fastest growing Small and Medium Enterprises in Rio Grande do Sul and is the sixth largest company in the Southern Region and the seventeenth in Brazil, according to one study (Deloitte, 2011). Between 2008 and 2010, the company's net income grew by 244.8% and was consolidated at approximately R\$ 19 million last year. Alpha Mobile has adopted both public and private clouds, which together amount to approximately 40% of its infrastructure and services. (BL:4, CO: 4, PO: 5) (10)

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