

# Question Paper

Exam Date & Time: 07-Dec-2023 (02:30 PM - 05:30 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

SEVENTH SEMESTER B.TECH END SEMESTER EXAMINATIONS, DEC 2023

**Cloud Computing [ICT 4045]**

**Marks: 50**

**Duration: 180 mins.**

**A**

**Answer all the questions.**

Instructions to Candidates: Answer ALL questions Missing data may be suitably assumed

- 1) What are the problems faced by X86 for virtualization initially, and how were they addressed by VMware, explain. Discuss how is it resolved in modern X86 machines. (5)
  - A)
  - B) Discuss any two methods used to protect the storage failure. (3)
  - C) What is multi cloud deployment? Explain. (2)
- 2) Which are the two ways that the webservices are implemented? Explain. (5)
  - A)
  - B) Identify three threats for virtual data center and discuss how to address them. (3)
  - C) Explain how Defence in depth is used in a virtual data center. (2)
- 3) For a data set containing name and salary key value pair, explain with a figure how would you proceed using Map-Reduce framework to find maximum salaried person name. (5)
  - A)
  - B) Distinguish between microservice architecture and three tier architecture. (3)
  - C) Discuss the main steps required to simulate a cloud environment in cloudsim. (2)
- 4) With a suitable example explain weighted max-min scheduling algorithm. (5)
  - A)
  - B) What is the technique used for backup optimization? Explain. (3)
  - C) An organization XYZ has two types of requirement. Some of its functionality requires high security and rest normal level security. Suggest a deployment model for this organization and explain with suitable figure. (2)
- 5) What are the components involved in a backup architecture ? Explain backup operation. (5)
  - A)
  - B) An ABC company wants to use suitable desktop virtualization for supporting windows server. Suggest a suitable desktop virtualization technique for them and explain. (3)

C)

Compare RAID-01 and 10

(2)

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