

# Question Paper

Exam Date & Time: 23-Jun-2022 (02:00 PM - 05:00 PM)



## MANIPAL ACADEMY OF HIGHER EDUCATION

Manipal School of Information Sciences (MSIS), Manipal  
Second Semester Master of Engineering - ME  
(Cloud Computing) Degree Examination - June 2022

### Cloud Networks [CDC 5201]

Marks: 100

Duration: 180 mins.

Thursday, June 23, 2022

Answer all the questions.

- 1) Distinguish between bus, ring and star topologies while describing the various advantages and disadvantages. (TLO 1.1) (2marks each + 4 marks) (10)
- 2) Distinguish between protocols and standards. Discuss the following layers of the OSI model. (TLO 1.2) (4+6 marks) (10)
  - a) application layer
  - b) presentation layer
  - c) session layer
- 3) State the role of transport layer in the OSI model. Differentiate between UDP and TCP with examples of where each is used. (TLO 1.2) (6+4 marks) (10)
- 4) Explain the 3 types of NAT. Describe class B and C IP address classes with an example. (TLO 1.2) (4+6 marks) (10)
- 5) Find the total number of hosts, network ID, broadcast ID for the IP address 192.168.91.0/26 (TLO 1.2) (2+4+4 marks) (10)
- 6) Summarize 5 things to know when choosing a data centre location. (TLO 2.1) (10 marks) (10)
- 7) Explain Global Server Load Balancing. Illustrate the working of GSLB and the key benefits of using GSLB. (TLO 2.3) (4+3+3 marks) (10)
- 8) Differentiate between the following (TLO 3.1) (5+5 marks) (10)
  - a) Internal DAS vs External DAS
  - b) Block storage vs File storage
- 9) Explain a Fibre Channel Switch. Distinguish between a Fibre Channel vs Ethernet Switch. (TLO 3.3) (5+5 marks) (10)
- 10) Describe network latency. Explain the various ways of Measuring Latency. (TLO 4.1) (5+5 marks) (10)

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