

Total No. of Questions : 8]

SEAT No. :

PE-2235

[Total No. of Pages : 2

[6584]-136

B. E. (E & TC)

CLOUD COMPUTING

(2019 Pattern) (Semester - VII) (404183)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates :

- 1) Answer Q.1 or Q.2 and Q.3 or Q.4 and Q.5 or Q.6 and Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) Differentiate between Cloud Computing and Virtualization. [6]
- b) Explain in brief Hardware Virtualization and Software Virtualization techniques. [6]
- c) Write short notes on: [6]
- i) CPU Virtualization.
  - ii) Memory Virtualization.

OR

- Q2)** a) Explain how virtualization is being leveraged in education, enterprise, and disaster recovery? [6]
- b) Describe the concept of virtual clustering. How does it improve fault tolerance and scalability in virtualized environments? [6]
- c) Justify virtualization improves scalability in virtualized environments, elaborate your answer. [6]
- Q3)** a) Draw and explain the cloud CIA security model. [6]
- b) Describe with relevant real world usage; the phases in the Cloud Computing Life Cycle (CCLC). [6]
- c) Explain the role of host security in SaaS, PaaS and IaaS. [5]

OR

P.T.O.

- Q4)** a) Apply the concept of cloud reference architecture to describe how a cloud service is deployed in practice. [6]
- b) State the characteristics and elaborate on relation between OSI layer and firewall with the help of types of firewall. [6]
- c) Apply your understanding of virtualization to explain security threats and solutions specific to virtualized environments. [5]

- Q5)** a) Explain with use case; the architecture of Google App Engine. [6]
- b) Discuss the various roles provided by Azure operating system in compute services. [6]
- c) Enlist and describe any two types of cloud platforms. [6]

OR

- Q6)** a) Differentiate between Google cloud platform and Amazon Web Services. [6]
- b) Describe the steps involved in creating an EC2 instance. [6]
- c) Explain the cost models in cloud computing. [6]

- Q7)** a) Apply your understanding of IoT to analyze how various enabling technologies (such as RFID, sensor networks and cloud computing) contribute to the development of an IoT based smart system. Support your answer with real life use case. [6]
- b) Explain how IoT technologies like Smart Devices Integration, can be applied to enhance online social networking, with suitable examples. [6]
- c) Describe any three enabling technologies for IoT. [5]

OR

- Q8)** a) Demonstrate the role of embedded systems in the implementation of IoT by describing how they are integrated into a real-world IoT application. [6]
- b) Classify and compare different types of distributed systems based on their architecture, functionality, and use-cases. Support your answer with real world examples. [6]
- c) Explain role of Big Data Analytics in context of IoT application. [5]

