

Total No. of Questions : 10]

SEAT No. :

**P3643**

[Total No. of Pages : 2

**[5560] - 599**

**T. E. (Information Technology)**

**CLOUD COMPUTING**

**(2015 Pattern) (Semester - II) (314453)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answer Question 1 or 2, 3 or 4, 5 or 6, 7 or 8, 9 or 10.*
- 2) *Figures to the right indicate full marks.*

- Q1)** a) List cloud enabling technologies. Explain any two in details. [4]  
b) Compare and contrast IaaS, SaaS, PaaS related to consumer activities and provider activities. [6]

OR

- Q2)** a) What is the difference between horizontal scaling and vertical scaling? [4]  
b) Explain different types of hypervisors with examples. [6]
- Q3)** a) Write a short note on OpenStack Compute. [4]  
b) Compare KVM, XEN and VMW are work station. [6]

OR

- Q4)** a) Draw and explain programming environment of Google App Engine. [4]  
b) Draw and explain Amazon EC2 execution environment. [6]
- Q5)** a) How are security policies and security mechanisms used to counter threats by threat agents? [8]  
b) Explain in Virtualization attack in detail with suitable diagrams. [8]

OR

**P.T.O.**

- Q6)** a) What is the role of a threat agent? List and describe three different threat agents. [8]  
b) What is hardened virtual server image? How is it used as a cloud server mechanism? [8]

- Q7)** a) Draw and explain architecture of NASA's Nebula Cloud. [8]  
b) Explain the concept of cloudlet. Differentiate between cloud and cloudlet. [8]

OR

- Q8)** a) Explain the concept of cloud mashup. Draw and explain architecture of IoT. [8]  
b) Draw and explain architecture of Facebook platform. [8]

- Q9)** a) What is a Docker? Draw and explain Docker deployment workflow. [10]  
b) Explain key issues related to energy efficiency in cloud computing. [8]

OR

- Q10)** Explain following concepts with diagrams [18]  
a) Autonomic cloud engine  
b) Multimedia cloud  
c) Jungle computing

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