

735/BT/T(I)

BT/7th Sem/CS-703-C/T/ODD/16

2016

B. TECH (7th Sem)
(CSE)

Paper Name : Cloud Computing

Paper Code : CS-703-C

Total Marks : 70

Time : 3 Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

*Separate answer booklet to be used for
PART-A and PART-B.*

PART-A

(Marks : 35)

GROUP-A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any **five** of the following: 1×5=5

- i) Which of these is not a major type of cloud computing usage?
- a) Hardware as a service
 - b) Platform as a service
 - c) Software as a service
 - d) Infrastructure as a service

[Turn over]

- ii) _____ computing refers to applications and services that run on a distributed network using virtualized resources –
 - a) distributed
 - b) cloud
 - c) soft
 - d) parallel
- iii) Which of the following cloud concept is related to pooling and sharing of resources?
 - a) Polymorphism
 - b) Abstraction
 - c) Virtualization
 - d) None of the above
- iv) Which of the following is deployment model.
 - a) Public
 - b) Private
 - c) Hybrid
 - d) All of the above.
- v) _____ provides virtual machines, virtual storage, virtual infrastructure and other hardware assets.
 - a) IaaS
 - b) SaaS
 - c) PaaS
 - d) RaaS

- vi) Which of the following services need to be negotiated in Service Level Agreements?
 - a) Logging
 - b) Auditing
 - c) Regularity compliance
 - d) All of the mentioned above
- vii) What is cloud computing replacing?
 - a) Corporate Data Centres
 - b) Expensive personal computer Hardwares
 - c) Expensive software upgrades
 - d) All of these.
- viii) Which of the following can be identified as
 - a) Web Applications
 - b) Intranet
 - c) Hadoop
 - d) All of the above.

GROUP-B

(Short Answer Type Questions)

Answer any **three** of the following: $5 \times 3 = 15$

2. Define cloud computing. Explain essential characteristics of cloud computing. 2+3
3. Discuss about NIST model in cloud. 5

4. Differentiate between utility computing, grid computing and cloud computing. 5
5. Enlist the characteristics of PaaS with example. 5
6. Explain the layered architecture of cloud computing in detail. 5
7. Explain different types of cloud service models with example. 5

GROUP-C

(Long Answer Type Questions)

Answer any **one** of the following: $15 \times 1 = 15$

8. Explain various Deployment models of cloud computing. 15
9. Briefly explain six stages of lifecycle management of cloud services. 15
10. Briefly describe Cloud Reference model. Write down advantages and disadvantages of cloud computing. 9+6
11. Write short notes on (any **three**) : $5 \times 3 = 15$
 - a) Cloud security
 - b) Open SaaS
 - c) Compliance as a service (CaaS)
 - d) Identity Management
 - e) Cloud Cube model.

PART-B

(Marks : 35)

GROUP-A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any **five** of the following: $1 \times 5 = 5$
 - i) What is Cloud Computing replacing?
 - a) Corporate data centers
 - b) Expensive personal computer hardware
 - c) Expensive software upgrades
 - d) All of the above.
 - ii) What is the number one concern about cloud computing?
 - a) Too expensive
 - b) Security concerns
 - c) Too many platforms
 - d) Accessibility
 - iii) Which of these companies is not a leader in cloud computing?
 - a) Google
 - b) Amazon
 - c) Blackboard
 - d) Microsoft

- iv) The term "cloud computing" is a metaphor that originated in what?
 - a) Graphical depiction of computer architectures
 - b) Meteorological symbolism
 - c) Worries about an unclear future for computing architectures
 - d) The idea that computer users trust in magic
- v) Which one of these is not a cloud computing pricing model?
 - a) Free
 - b) Pay Per Use
 - c) Subscription
 - d) Ladder
- vi) Which of these is not a major type of cloud computing usage?
 - a) Hardware as a Service
 - b) Platform as a Service
 - c) Software as a Service
 - d) Infrastructure as a Service
- vii) IBM, EMC and Boeing Co. was among the companies signing what document whose title is reminiscent of a famous political statement?

- a) Declaration of Cloud Computing
 - b) The Rights of Cloud
 - c) Mein Cloud
 - d) Open Cloud Manifesto
- viii) Which is not a major cloud computing platform?
- a) Google 101
 - b) IBM Deep blue
 - c) Microsoft Azure
 - d) Amazon EC2

GROUP-B

(Short Answer Type Questions)

Answer any three of the following: $5 \times 3 = 15$

2. Discuss mobility patterns P2V and V2V. 2+3
3. Describe Windows Azure platform architecture. 5
4. Explain Emulation, Paravirtualization and Full Virtualization. 5
5. Explain the concept of Event – Driven SOA. 5
6. What is cloud bursting? Give an example. 5
7. Describe cloud web mail services with one example. 5

GROUP-C

(Long Answer Type Questions)

Answer any **one** of the following: $15 \times 1 = 15$

8. What is load balancing? Explain different types of Load Balancing in detail. What is cloud virtualization? What are the different categories of Google's APIs? Describe Drupal.

$2+4+2+3+4$

9. What is cloud storage? Differentiate between managed and unmanaged cloud storage. Explain the protocol stack for SOA with diagram. Describe the different cloud service attributes. $2+4+6+3$

10. Short notes (any three) : 5×3

- a) Google Web Service
- b) Wolf Frameworks
- c) Windows Live Hotmail
- d) Service Oriented Architecture
- e) Enterprise Service Bus.