

TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF COMPUTER APPLICATIONS (B.C.A.)/
SPECIALIZATION IN CYBER SECURITY (CS)

EXAMINATION: DECEMBER-2025

SEMESTER - VI

Sub: Cloud Technology / Virtualization and Cloud Technology

(BCA-640-20/BCA-CS-640-20)

Date : 30/12/2025

Total Marks : 60

Time: 10.00 am to 12.30 pm

Instructions:

1. All questions are compulsory unless and otherwise stated.
2. Bold figures to the right of every question are the maximum marks for that question.
3. Candidates are advised to attempt questions in order.
4. Answers written illegibly are likely to be marked zero.
5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
6. Draw neat and labelled diagrams wherever necessary.

Q.1. Fill in the blanks.

(05)

1. Cloud computing delivers computing services over the _____.
a) Internet
b) Software
c) Database
d) None of the above
2. Microsoft's cloud service platform is known as _____.
a) AWS
b) Pcloud
c) MegaCloud
d) Azure
3. _____ cloud is shared by multiple organizations.
a) Public
b) Community
c) Private
d) Hybrid
4. A _____ is a virtual version of a physical machine
a) Virtual Machine
b) Guest Machine
c) Host Machine
d) Client Machine
5. A _____ cloud offers services to the general public
a) Public
b) Community
c) Private
d) Hybrid

Q.2. State True/False

(05)

1. A hypervisor is software used to create and run virtual machines.
2. Virtual memory is the same as virtualization.
3. Software as a Service (SaaS) includes products like Gmail or Google Docs.
4. Type 1 hypervisors run on top of an operating system.
5. A major advantage of cloud computing is cost-efficiency.

Q.3. Answer the following. (Solve any 5)

(10)

1. What is a hypervisor?
2. What is hardware virtualization?
3. What is public cloud?
4. Name three major cloud providers.
5. What is the main benefit of virtualization?
6. What is pay-as-you-go pricing?

Q. 4. Answer the following in detail. (Solve any 6) (30)

1. Write a short note on VLAN.
2. What is paravirtualization and how is it different from full virtualization?
3. What is cloud computing? Describe its essential characteristics.
4. What is virtualization's role in cloud computing?
5. Explain RAID levels with diagram.
6. Describe cloud computing architecture with diagram.
7. Compare IAAS, PAAS, SAAS

Q. 5. Answer the following in detail. (Solve any 1) (10)

1. Explain cloud computing and its service models. Discuss the advantages and disadvantages of cloud computing.
 2. Discuss the role of hypervisors in virtualization. Compare Type 1 and Type 2 hypervisors.
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