

(FOR THE CANDIDATES ADMITTED

SUBJECT CODE **23 UCT 5E1**

DURING THE ACADEMIC YEAR 2023-24 ONLY)

REG.NO.

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : NOVEMBER – 2025

B.Sc. – Computer Technology

MAXIMUM MARKS: 75

V SEMESTER

TIME : 3 HOURS

PART – III

CLOUD COMPUTING

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

(K1)

1. Which of the following is a type of cloud computing service?
a) Service-as-a-Software (SaaS) b) Software-and-a-Server (SaaS)
c) Software-as-a-Service (SaaS) d) Software-as-a-Server (SaaS)
2. Which cloud storage service is primarily associated with Microsoft?
a) Google Drive b) Dropbox
c) OneDrive d) iCloud
3. Which of the following is a primary design consideration for cloud applications?
a) Hardware compatibility only b) Scalability and fault tolerance
c) Fixed memory allocation d) Manual resource provisioning
4. In the context of cloud security, *authorization* is.....
a) The process of confirming user credentials
b) Assigning and enforcing access rights based on policies
c) Auditing user actions
d) Rotating cryptographic keys
5. Which Python SDK is officially provided by Amazon Web Services (AWS) for interacting with its services?
a) boto3 b) aws-sdk-py c) cloudpy d) s3-python

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. What is guest OS?
7. Which two core components constitute the base of Apache Hadoop?
8. Which benchmarking tool is commonly used for Hadoop performance testing?
9. Write the primary purpose of designing CSA Cloud Security Architecture.
10. What is the role of the handler function in AWS Lambda with Python?

SECTION – B

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.

(K3)

11. a) Explain the characteristics of cloud computing.

(OR)

- b) Discuss load balancing.

12. a) Elucidate content delivery services.

(OR)

- b) Explain the Hadoop scheduler.

(CONTD 2)

13. a) Explain the REST architectural constraints.
(OR)
b) Enumerate the steps involved in benchmarking of cloud applications.
14. a) Explain the key security challenges for cloud applications.
(OR)
b) Illustrate the benefits of cloud computing in healthcare.
15. a) Develop a Python code for creating an autoscaling group.
(OR)
b) Construct a Python program for launching an Amazon RDS instance.

SECTION – C **(5 X 8 = 40 MARKS)**
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.
(K4 (Or) K5)

16. a) Explain the cloud service models with examples.
(OR)
b) Illustrate the Network Function Virtualization.
17. a) Demonstrate compute services.
(OR)
b) Elucidate the functions of key process of Hadoop.
18. a) Discuss the important design considerations for developing applications that can leverage the benefits of cloud computing.
(OR)
b) Illustrate the characteristics of application workload.
19. a) Elucidate the ways of securing data for cloud applications.
(OR)
b) Discuss the role of cloud computing for energy systems.
20. a) Illustrate how Google compute engine provides scalable and flexible virtual machine computing capabilities.
(OR)
b) Explain how Django helps in developing web applications in Python.