

GURU NANAK INSTITUTE OF TECHNOLOGY
An Autonomous Institute under MAKAUT
2020-2021
CLOUD COMPUTING
IT703A

TIME ALLOTTED: 3 HOURS

FULL MARKS: 70

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable

GROUP – A
(Multiple Choice Type Questions)

Answer any *ten* from the following, choosing the correct alternative of each question: **10×1=10**

		Marks	CO No
1.	(i) A company has decided to leverage the web conferencing services provided by a cloud provider and to pay for those services as they are used. The cloud provider manages the infrastructure and any application upgrades. What is the type of this cloud delivery model? a. Platform as a Service b. Software as a Service c. Application as a Service d. Infrastructure as a Service	1	CO1
	(ii) Which one of the following cloud concepts is related to sharing and pooling the resources? a. Polymorphism b. Virtualization c. Abstraction d. None of the mentioned	1	CO1
	(iii) Which resources are typically provided by an Infrastructure as a Service cloud computing delivery model? a. applications b. virtual machines c. virtual private networks d. middleware software stacks	1	CO1
	(iv) Which of the model involves the special types of services that users can access on a Cloud Computing platform? a. Service b. Planning c. Deployment d. Application	1	CO2

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|--------|---|---|-----|
| (v) | Which one of the following a technology works behind the cloud-computing platform?
a. Virtualization
b. SOA
c. Grid Computing
d. All of the above | 1 | CO2 |
| (vi) | Which concept aligns business and IT assets, helps provide flexible IT capacity, and provides real time allocation of IT resources in line with demand from business processes?
a. elasticity
b. virtualization
c. dynamic infrastructure
d. automated management of resources | 1 | CO2 |
| (vii) | Which is the correct combination of cloud service provider and cloud-based service?
a. Google and AWS
b. Intuit and quick books online
c. IBM and Azure
d. Microsoft and GWT | 1 | CO4 |
| (viii) | What is cloud computing replacing?
a. Corporate Data centers
b. Expensive personal computer hardware
c. Expensive software upgrades
d. All of these | 1 | CO1 |
| (ix) | Amazon EC2 is which type of cloud computing model?
a. Compliance as a service
b. Infrastructure as a service
c. Platform as a Service
d. Software as a Service | 1 | CO4 |
| (x) | Which of the following programming language did Google include for development around App engine?
a. C++
b. Java
c. SQL
d. Visual Basic | 1 | CO3 |
| (xi) | Which of the following is a Web service that can publish messages from an application and deliver them to other applications or to subscribers?
a. Amazon Elastic Compute Cloud
b. Amazon Simple Notification Service
c. Amazon Simple Storage Service
d. Amazon Simple Queue Service | 1 | CO4 |
| (xii) | Which of the following uses an authentication device?
a. Amazon Mechanical Turk
b. Amazon Elastic MapReduce
c. Multi Factor Authentication
d. Amazon Electronic Turk | 1 | CO1 |

GROUP – B
(Short Answer Type Questions)

Answer any *three* from the following: 3×5=15

		Marks	CO No	
2.	(a)	Describe cloud security model as defined by cloud security alliance.	3	CO3
	(b)	Mention three significant characteristics of a typical SaaS solution.	2	CO3
3.	(a)	What are the functions of Google Analytics? How does it work for the user?	2	CO2
	(b)	Discuss three main advantages and three major disadvantages of cloud computing with suitable example.	3	CO3
4.	(a)	Determine the role of cloud computing in healthcare application	3	CO2
	(b)	Discuss two different cloud services offered by Google.	2	CO3
5.	(a)	Compare Cloud and grid computing.	2	CO1
	(b)	What is IAAS? Explain its advantages and disadvantages.	3	
6.	(a)	Cloud computing is a "paradigm shift"-illustrate this.	3	CO3
	(b)	What is the role of resource scheduler in IaaS service layer?	2	CO2

GROUP – C
(Long Answer Type Questions)

Answer any *three* from the following: 3×15=45

			Marks	CO No
7.	(a)	Describe the NIST Cloud model.	5	CO1
	(b)	You have established an organization and you think to have a cloud service for that: which kind of deployment model would be best for: Employee management system Which type of service model you opt for: Storing huge data Network support Customer management	5	CO4
	(c)	Analyze the role of community cloud in your organization.	5	CO3
8.	(a)	Discuss the following concepts in the context of cloud computing: i) Billing and Metering Services ii) Tooling and automation	8	CO4
	(b)	Difference between elasticity and scalability in cloud computing	3	CO4
	(c)	Describe the architecture of windows Azure.	4	CO4
9.	(a)	What is Service-Level Agreement (SLA)? Explain about	6	CO2

- the security controls classified in cloud computing.
- (b) Suppose a company A decides to set up a cloud to deliver software as a service to its clients through a remote location. Answer the followings: 5 CO2
- i) What are the security risks for which a customer needs to be careful about?
- ii) What kind of infrastructural set up will be required to set up a cloud?
- (c) Compare different cloud service model. 4 CO2
10. (a) Suggest 5 steps to reduce security breaches in cloud computing. Also, discuss how cloud security is different from other IT infrastructure hosted within an organization. 6 CO4
- (b) What is IaaS? Mention any two IaaS service providers. 4 CO4
- (c) What is utility computing? Explain utility model for cloud web services. 5 CO4
11. (a) Discuss about Bot service of Amazon. 5 CO1
- (b) What do you mean by vendor lock-in? How it can be avoided? 5 CO3
- (c) Analyze how cloud computing can help for any academic institution. 5 CO2