

GURU NANAK INSTITUTE OF TECHNOLOGY
An Autonomous Institute under MAKAUT
2020-2021
Cloud Computing
CS703A

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) An internal cloud is (a) An overhanging threat (b) A career risk for a CIO (c) A cloud that sits behind a corporate firewall (d) The group of knowledge workers who use a social network for water-cooler gossip.	01	CO1
	(ii) Which one of these is not a cloud computing pricing model? (a) Free (b) Pay per use (c) Subscription (d) Ladder	01	CO2
	(iii) Following is the advantage of VM Migration (a) Expensive (b) Load balancing (c) Inefficient (d) No threats though phishing	01	CO3
	(iv) Disadvantages of the public cloud are (a) Under utilization (b) Weak on security (c) Costs less (d) None of the mentioned	01	CO3
	(v) Separation of a personal computer desktop environment from a physical machine through the client server model of computing is known as _____. (a) Network Virtualization (b) Desktop virtualization (c) Memory virtualization (d) x86 virtualization	01	CO2
	(vi) Virtual Machine Ware (VMware) is an example of (a) Infrastructure Service (b) Platform Service (c) Software Service (d) None of the above	01	CO2

(vii)	Following are the server virtualization techniques. Select best one. (a) Hypervisor (b) Para-virtualization (c) Full-virtualization (d) All of the mentioned	01	CO1
(viii)	Following are the core elements of a data center. Select best one. (a) Host (b) Storage (c) Connectivity (d) All of the mentioned	01	CO2
(ix)	The machine on which the virtual machine is created is known as _____ (a) Virtual machine (b) Host machine (c) Electric machine (d) All of the above	01	CO2
(x)	Which of these widely used service is built on cloud computing technology? (a) Twitter (b) Skype (c) Gmail (d) All the above	01	CO4
(xi)	Which one of the following options can be considered as the Cloud? (a) Too Expensive (b) Security Concerns (c) Too many platforms (d) Accessibility	01	CO1
(xii)	Virtual machine is referred as _____ (a) Host machine (b) Guest machine (c) Electric machine (d) All of the above	01	CO2

GROUP – B

(Short Answer Type Questions)

(Answer any *three* of the following) **3 x 5 = 15**

		Marks	CO No
2.	Define virtualization. How will you implement storage virtualization at the server level?	5	CO3
3.	Define hypervisor in cloud computing and their types.	5	CO2
4.	Why multi-tenancy is key to successful and sustainable software-as-a-service	5	CO2
5.	State the advantages of cloud Virtualization.	5	CO3
6.	Discuss the detail with diagram(s) the cloud cube model.	5	CO2

GROUP – C
(Long Answer Type Questions)

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

			Marks	CO No
7.	(a)	Define Pods, aggregation and silos.	3	CO3
	(b)	Explain with diagrammatic illustration the NIST cloud computing reference architecture	9	CO1
8.	(a)	What is Identity as a Service (IDaaS)?	3	CO4
	(b)	What are core functions of IDaaS?	4	CO3
	(c)	Describe how user identity is authenticated and resource authorization enforced in a typical IDaaS scenario.	8	CO2
9.	(a)	What is Software as a Service (SaaS) in cloud computing?	3	CO2
	(b)	What are the main characteristics of SaaS solution?	3	CO1
	(c)	Describe through a schematic diagram and necessary explanation how XML and SOA are used to implement an open SaaS environment.	9	CO3
10.	(a)	What is virtualization and why has it gained prominence in the context of cloud computing?	5	CO3
	(b)	What are the major components and characteristics of a virtualized environment? Explain with suitable examples.	10	CO2
11.		Write short notes on (<i>Any three</i>)	3x5	
	(a)	Elastic IP Addressing	5	CO3
	(b)	Google API	5	CO4
	(c)	Cloud Storage Management	5	CO4
	(d)	HDFS	5	CO5
	(e)	Amazon EC2	5	CO1