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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: V - CARRY OVER THEORY EXAMINATION - APRIL 2023

Subject: Introduction to cloud computing

Time: 3 Hours

Max. Marks: 100

General Instructions:**IMP:** Verify that you have received the question paper with the correct course, code, branch etc.**1.** This Question paper comprises of **three Sections -A, B, & C.** It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.**2.** Maximum marks for each question are indicated on right -hand side of each question.**3.** Illustrate your answers with neat sketches wherever necessary.**4.** Assume suitable data if necessary.**5.** Preferably, write the answers in sequential order.**6.** No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.**SECTION A****20****1. Attempt all parts:-**

- 1-a. Which of the following is related to the service provided by Cloud? [CO1] 1
- (a) Sourcing
 - (b) Ownership
 - (c) Reliability
 - (d) AaaS
- 1-b. _____ enables batch processing, which greatly speeds up high-processing applications. [CO1] 1
- (a) Scalability
 - (b) Reliability
 - (c) Elasticity
 - (d) Utility
- 1-c. Which is not a type of virtualization [CO2] 1
- (a) Server virtualization
 - (b) Network virtualization

- (c) Macro virtualization
- (d) Storage virtualization
- 1-d. Select one of the following that is an essential principle of cloud architecture? [CO2] 1
- (a) Consistency
- (b) Reliability
- (c) Scalability
- (d) All of the mentioned
- 1-e. _____ describes a cloud service that can only be accessed by a limited amount of people. [CO3] 1
- (a) Data center
- (b) Private cloud
- (c) Virtualization
- (d) Public cloud
- 1-f. From the standpoint of a _____ it makes no sense to offer non-standard machine instances to customers. [CO3] 1
- (a) CaaS
- (b) AaaS
- (c) PaaS
- (d) IaaS
- 1-g. To find the best security-as-a-service offering for your organization: [CO4] 1
- (a) Ask the vendor what they recommend
- (b) Assess your requirements, do a risk assessment and a cost/benefit analysis of the options
- (c) Find the cheapest monthly option and use whatever is offered with that service
- (d) Ask your peers and do exactly what they're doing
- 1-h. The Resource Provisioning Method (RPM), which is cost-based, succeeds in: [CO4] 1
- (a) Over- provisioning
- (b) Under- Provisioning
- (c) Both
- (d) None on the mentioned
- 1-i. What does IPsec in the Azure platform refer to? [CO5] 1

- (a) Internet Protocol Security protocol suite
- (b) Internet Standard
- (c) Commodity servers
- (d) All of the mentioned

1-j.	Which one is not a goal of information security? [CO5]	1
	(a) Scalability	
	(b) Confidentiality	
	(c) Integrity	
	(d) Availability	

2. Attempt all parts:-

2.a.	Define Elasticity. [CO1]	2
2.b.	Name any three virtualization software. [CO2]	2
2.c.	Point out the role of cloud service provider. [CO3]	2
2.d.	What do you mean by EBS in cloud computing. [CO4]	2
2.e.	Define Resource Provisioning in cloud computing. [CO5]	2

SECTION B

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3. Answer any five of the following:-

3-a.	Differentiate between Cloud computing and fog computing. [CO1]	6
3-b.	Discuss principle of distributed computing. [CO1]	6
3-c.	Define utility computing with example. [CO2]	6
3-d.	Describe disaster recovery in context with cloud. [CO2]	6
3.e.	Write Advantages and disadvantages of public cloud. [CO3]	6
3.f.	List benefits of CCRA 2.0. [CO4]	6
3.g.	Discuss relation between Google app engine and Google compute engine. [CO5]	6

SECTION C

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4. Answer any one of the following:-

4-a.	Explain cloud economics. Discuss the key areas of cloud economics in detail. [CO1]	10
4-b.	Differentiate between data centers and cloud data centers. [CO1]	10

5. Answer any one of the following:-

5-a.	Briefly outline the evolution of cloud computing. [CO2]	10
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5-b. Explain SOA. Discuss publish subscribe model in detail. [CO2] 10

6. Answer any one of the following:-

6-a. Draw NIST Cloud reference architecture. Explain components in brief. [CO3] 10

6-b. Discuss advantages and disadvantages of hybrid and community cloud. [CO3] 10

7. Answer any one of the following:-

7-a. Describe various storage options available in AWS S3. [CO4] 10

7-b. Describe the procedures for implementing SaaS security using illustrations. [CO4] 10

8. Answer any one of the following:-

8-a. Discuss about VPC in detail. [CO5] 10

8-b. What do you mean by virtual machine security? Discuss IAM in brief. [CO5] 10

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