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Subject Code:- AMBABI0313

Roll. No:

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

M.B.A.

SEM: III - THEORY EXAMINATION (2022 - 2023)

Subject: Cloud and Big Data

Time: 3 Hours

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.

1. Attempt all parts:-

- 1-a. Which are essential characteristics of cloud computing? (CO1)
 - (a) On-demand self service
 - (b) Resource pooling
 - (c) Rapid elasticity
 - (d) All of these
- 1-b. An example of hybrid cloud is (CO1)
 - (a) Ubuntu Enterprise cloud (UEC)
 - (b) VMware cloud infrastructure suite
 - (c) Eucalyptus
 - (d) VMware vCloud
- 1-c. A Cloud environment can not be accessed from anywhere in the world as long as the user 1 has access to the (CO2)
 - (a) Internet
 - (b) Extranet

Max. Marks: 100

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- (d) Intranet
- 1-d. Which of the following can be considered PaaS offering? (CO2)

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- (a) Google Maps
- (b) Gmail
- (c) Google Earth
- (d) All of the mentioned
- 1-e. Type-1 Hypervisor runs directly on underlying _____ (CO3)
 - (a) Software
 - (b) Hardware
 - (c) Firmware
 - (d) Compiler
- 1-f. A "service" is the atomic unit of an ____(CO3)
 - (a) Service oriented architecture (SOA)
 - (b) Openstack
 - (c) EC2
 - (d) HTTP
- 1-g. Goal of Cloud security is. (CO4)
 - (a) Prevent cloud services
 - (b) lack in security
 - (c) Utility
 - (d) only a and b
- 1-h. Provisioning parameters helps to (CO4)
 - (a) Minimize response time
 - (b) Maximize Cost
 - (c) Maximize SLA Violation
 - (d) All of the mentioned
- 1-i. What is Google App Engine for? (CO5)
 - (a) Google App Engine is for detecting malicious apps.
 - (b) Google App Engine is for running web applications on Google's infrastructure
 - (c) Google App Engine replaces the modern computer

(d) Google App Engine is a system to develop hardware interfaces.

1-j.	Application of Big Data is(CO5)	1						
	(a) Education							
	(b) Banking							
	(c) Insurance							
	(d) All of the above							
2. Attemp	t all parts:-							
2.a.	Define PaaS service. (CO1)	2						
2.b.	write the various services given by AWS. (CO2)	2						
2.c.	Discuss the Virtualization in brief. (CO3)	2						
2.d.	Explain global exchange of cloud resources with suitable example. (CO4)	2						
2.e.	Discuss any 5 advantages of Google App Engine. (CO5)	2						
	SECTION B	30						
3. Answer	any five of the following:-							
3-а.	Draw the Cloud Architecture .Explain the benefits over the parallel computing. (CO1)	6						
3-b.	Explain on-demand functionality in cloud computing with suitable example. (CO1)	6						
3-с.	Discuss the role of cloud broker and cloud carrier in the NIST Reference Architecture. (CO2)	6						
3-d.	Discuss the operational and economic benefits of PaaS. (CO2)	6						
3.e.	Differentiate between REST and SOAP. (CO3)	6						
3.f.	Define VM security and also write the steps to evaluate security. (CO4)	6						
3.g.	Describe cloud federation and future of cloud federation. (CO5)	6						
	SECTION C	50						
4. Answer	any <u>one</u> of the following:-							
4-a.	Identify the drawback of client server computing and justify how to remove by cluster computing? (CO1)	10						
4-b.	Discuss the various services of cloud vendors. (CO1)	10						
5. Answer	any <u>one</u> of the following:-							
5-a.	Discuss in detail about NIST architecture of cloud computing with actors and their functions (CO2)	10						
5-b.	List and discuss the principles for designing public cloud, private cloud and hybrid cloud.	10						

(CO2)

- 6. Answer any one of the following:-
- 6-a. Describe Hypervisor. Differentiates between native Hypervisor and Hosted Hypervisor. 10 (CO3)
- 6-b. Write note on 1) Server Virtualization 2) Cloud Diaster Recovery 3) Memory Virtualization. 10 (CO3)
- 7. Answer any one of the following:-
- 7-a. Describe Cloud Resource Provisioning and Express the various types of cloud resources 10 provisioning method. (CO4)
- 7-b. "Cloud security helps to know organization's risks and their business impact", clarify the 10 statement in detail. (CO4)
- 8. Answer any one of the following:-
- 8-a. Define "volume", "variety" and "velocity". Discuss challenges with big data. (CO5) 10
- 8-b. Explain Open Stack. Draw your review on the component that offers networking facility to 10 user in OpenStack. (CO5)