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Subject Code:- AMBABI0313

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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MBA

SEM: III - CARRY OVER THEORY EXAMINATION - APRIL 2023

Subject: Cloud and Big Data

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 are essential characteristics of cloud computing? (CO1) 1
- (a) On-demand self service
 - (b) Resource pooling
 - (c) Rapid elasticity
 - (d) All of these
- 1-b. _____ computing refers to applications and services that run on a 1
distributed network using virtualized resources. (CO1)
- (a) Distributed
 - (b) Soft
 - (c) Cloud
 - (d) None of the above
- 1-c. NIST Reference architecture actor are _____. (CO2) 1
- (a) Consumer
 - (b) Provider

- (c) Carrier
- (d) All of these
- 1-d. A Cloud environment can not be accessed from anywhere in the world as long as the user has access to the (CO2) 1
- (a) Internet
- (b) Extranet
- (c) Ethernet
- (d) Intranet
- 1-e. Virtual machines are example of _____. (CO3) 1
- (a) IaaS
- (b) PaaS
- (c) SaaS
- (d) All of the mentioned
- 1-f. Type-1 Hypervisor runs directly on underlying ____ (CO3) 1
- (a) Software
- (b) Hardware
- (c) Firmware
- (d) Compiler
- 1-g. Which of the following are a common means for losing encrypted data? (CO4) 1
- (a) lose the keys
- (b) lose the encryption standard
- (c) lose the account
- (d) all of the mentioned
- 1-h. Which is not a cloud security benefit: (CO4) 1
- (a) Reduced cost
- (b) reduced administration
- (c) Risk aggravation
- (d) Increase reliability
- 1-i. What is Google App Engine for? (CO5) 1
- (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. _____ is the core orchestration component with OpenStack. (CO5) 1
- (a) Keystone
 - (b) Heat
 - (c) Manila
 - (d) ironic

2. Attempt all parts:-

- 2.a. Define PaaS service. (CO1) 2
- 2.b. Write the benefits of Private cloud? (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. Explain Google App Engine with suitable example. (CO5) 2

SECTION B

30

3. Answer any five of the following:-

- 3-a. Differentiate between parallel and distributed computing. (CO1) 6
- 3-b. Draw the Cloud Architecture .Explain the benefits over the parallel computing. (CO1) 6
- 3-c. Express the characteristics of private cloud. (CO2) 6
- 3-d. Discuss the benefits and drawbacks of using "Infrastructure as a Service". (CO2) 6
- 3.e. Discuss the Service oriented architecture technology in the cloud computing. How it is beneficial? (CO3) 6
- 3.f. Write short note on 1) Availability 2) Modification 3) Interruption (CO4) 6
- 3.g. Explain "how virtual box benefecial for virtualization" with suitable example. (CO5) 6

SECTION C

50

4. Answer any one of the following:-

- 4-a. Identify the drawback of client server computing and justify how to remove by cluster computing? (CO1) 10
- 4-b. Describe the various cloud computing services models. (CO1) 10

5. Answer any one of the following:-

- 5-a. Discuss in detail about NIST architecture of cloud computing with actors and their functions.. (CO2) 10
- 5-b. Elaborate the storage as a service and simple storage service and various 10

benefits of cloud storage.(CO2)

6. Answer any one of the following:-

- 6-a. Describe Hypervisor. Differentiates between native Hypervisor and Hosted Hypervisor. (CO3) 10
- 6-b. Explain how cloud enterprise effectively manages the workload of various resources. Write various techniques involved in it. (CO3) 10

7. Answer any one of the following:-

- 7-a. Describe Cloud Resource Provisioning and Express the various types of cloud resources provisioning method. (CO4) 10
- 7-b. Write short note on 1) CIA model 2) cloud security standard. (CO4) 10

8. Answer any one of the following:-

- 8-a. Explain Hadoop Distributed File system Architecture. Describe advantages of Hadoop. (CO5) 10
- 8-b. Explain Open Stack. Draw your review on the component that offers networking facility to user in OpenStack. (CO5) 10