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**NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA**

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MBA

SEM: III - THEORY EXAMINATION (2021 - 2022) (ONLINE)

Subject: Cloud and Big Data

Time: 02:00 Hours

Max. Marks: 100

**General Instructions:**

1. *All questions are compulsory. It comprises of two Sections A and B.*
  - *Section A - Question No- 1 has 35 objective type questions carrying 2 marks each.*
  - *Section B - Question No- 2 has 12 subjective type questions carrying 3 marks each. You have to attempt any 10 out of 12 question.*
  - *No sheet should be left blank. Any written material after a Blank sheet will not be evaluated/checked.*

**SECTION A**

35 x 2 = 70

1. Attempt ALL parts:-

- |       |   |   |
|-------|---|---|
| 1.1.a | Which of the following is/are distributed system?             | 1 |
|       | (a) Internet  |   |
|       | (b) Workgroups  |   |
|       | (c) Both a and b  |   |
|       | (d) None of these   |   |
| 1.1.b | Which are essential characteristics of cloud computing? (CO1) | 1 |
|       | (a) On-demand self service                                    |   |
|       | (b) Resource pooling  |   |
|       | (c) Rapid elasticity  |   |
|       | (d) All of these  |   |
| 1.1.c | Which of the following is Cloud Platform by Amazon?           | 1 |
|       | (a) AWS   |   |
|       | (b) Azure   |   |
|       | (c) Cloudera  |   |
|       | (d) All of the mentioned                                      |   |
| 1.1.d | Email service on cloud is an example of                       | 1 |
|       | (a) SaaS  |   |
|       | (b) PaaS  |   |
|       | (c) IaaS  |   |
|       | (d) All of the mentioned                                      |   |
| 1.1.e | Which is a not essential characteristic of cloud computing?   | 1 |
|       | (a) On-demand self service                                    |   |
|       | (b) Resource pooling  |   |
|       | (c) Pay as you go   |   |
|       | (d) None of these   |   |
| 1.1.f | Which of the following are the features of cloud computing?   | 1 |
|       | (a) Security  |   |
|       | (b) Availability  |   |
|       | (c) Large network Access                                      |   |

- (d) All of the mentioned
- 1.1.g "Cloud" in cloud computing represents which of the following? 1
- (a) People
  - (b) Internet
- 1.2.a \_\_\_\_\_ describes a cloud service that can only be accessed by a limited amount of people. 1
- (a) Data center
  - (b) Private cloud
  - (c) Virtualization
  - (d) Public cloud
- 1.2.b \_\_\_\_\_ describes a distribution model in which applications are hosted by a service provider and made available to users. 1
- (a) Infrastructure-as-a-Service (IaaS)
  - (b) Platform-as-a-Service (PaaS)
  - (c) Software-as-a-Service (SaaS)
  - (d) Cloud service
- 1.2.c NIST Reference architecture actor are \_\_\_\_\_. (CO2) 1
- (a) Consumer
  - (b) Provider
  - (c) Carrier
  - (d) All of these
- 1.2.d Which of the architectural layer is used as a front end in cloud computing? 1
- (a) client
  - (b) cloud
  - (c) soft
  - (d) all of the mentioned
- 1.2.e Which of the following benefit is provided by the PaaS service provider? 1
- (a) A larger pool of qualified developers
  - (b) More reliable operation
  - (c) A logical design methodology
  - (d) All of the mentioned
- 1.2.f Which is/are private cloud? 1
- (a) Amazon EC2
  - (b) Azure
  - (c) Eucalyptus
  - (d) Google App Engine
- 1.2.g Which of the following is the highest degree of integration in cloud computing? 1
- (a) CaaS
  - (b) AaaS
  - (c) PaaS
  - (d) SaaS
- 1.3.a Point out the correct statement. 1
- (a) A client can request access to a cloud service from any location
  - (b) A cloud has multiple application instances and directs requests to an instance based on conditions
  - (c) Computers can be partitioned into a set of virtual machines with each machine being assigned a workload
  - (d) All of the mentioned

- 1.3.b Virtual machines are example of \_\_\_\_\_. (CO3) 1  
(a) IaaS  
(b) PaaS  
(c) SaaS  
(d) All of the mentioned
- 1.3.c Which of the following is correct about SOAP? 1  
(a) SOAP is a format for sending messages.  
(b) SOAP is designed to communicate via internet  
(c) SOAP is Platform Independent  
(d) All of the mentioned
- 1.3.d Which of the following is another name for the system virtual machine? 1  
(a) hardware virtual machine  
(b) software virtual machine  
(c) real machine  
(d) All of the mentioned
- 1.3.e Which type of hypervisor 'bare metal' is? 1  
(a) Type 1  
(b) Type 2  
(c) Type 3  
(d) All of the mentioned
- 1.3.f Which of the following provide system resource access to virtual machines? 1  
(a) VMM  
(b) VMC  
(c) VNM  
(d) All of the mentioned
- 1.3.g Which of the following type of virtualization is found in hypervisor such as Microsoft's Hyper-V? 1  
(a) paravirtualization  
(b) full virtualization  
(c) emulation  
(d) none of the mentioned
- 1.4.a 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
- 1.4.b IAM is \_\_\_\_\_. (CO4) 1  
(a) Role based access control  
(b) traditional communication systems  
(c) connection protocol  
(d) Interface
- 1.4.c Which of the options is/are the basic components of security? 1  
(a) Confidentiality  
(b) Utility  
(c) Reliability  
(d) Efficiency

- 1.4.d Inter-cloud is a \_\_\_\_\_ of clouds that are linked with each other. 1  
(a) Network  
(b) Channel  
(c) Interface  
(d) Organisation
- 1.4.e Provisioning parameters helps to 1  
(a) Minimize response time  
(b) Maximize Cost  
(c) Maximize SLA Violation  
(d) All of the mentioned
- 1.4.f Global exchange of cloud resources is useful in: 1  
(a) availability of market  
(b) automatic bidding by requirement  
(c) Increase in market competition  
(d) All of the mentioned
- 1.4.g Which is not a cloud security benefit: 1  
(a) Reduced cost  
(b) reduced administration  
(c) Risk aggravation  
(d) Increase reliability
- 1.5.a Data in \_\_\_\_\_ bytes size is called Big Data 1  
(a) Tera  
(b) Giga  
(c) Peta  
(d) Meta
- 1.5.b How many V's of Big Data 1  
(a) 5  
(b) 4  
(c) 3  
(d) 2
- 1.5.c What are the main components of Big Data? 1  
(a) MapReduce  
(b) HDFS  
(c) YARN  
(d) All of the above
- 1.5.d What two programming languages do App Engine's tools use? 1  
(a) C++ and Visual Basic  
(b) PHP and C#  
(c) Python and Java  
(d) None of the above
- 1.5.e 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.
- 1.5.f virtual box is a 1

- (a) Hypervisor
- (b) Hardware
- (c) Both a and b
- (d) None of the above

- 1.5.g Fog computing is the extension of 1
- (a) Mist Computing
  - (b) Cloud Computing
  - (c) Mobile computing
  - (d) both A and B

SECTION B

10 X 3 = 30

2. Answer any TEN of the following:-

- 2.1.a List out the Essential characteristics of cloud computing. 2
- 2.1.b Explain “on demand self Service” and “Rapid elasticity” 2
- 2.2.a Write the various name of the actor used in NIST Reference architecture. 2
- 2.2.b Write two difference between Public and Private Cloud. (CO2) 2
- 2.2.c Describe various types of storgae. 2
- 2.3.a Write any three name of Type-1 hypervisor 2
- 2.3.b Discuss the Virtualization in brief. (CO3) 2
- 2.3.c Write Component of Service Oriented Architecture 2
- 2.4.a Give Some Examples of Resource Provisioning methods. 2
- 2.4.b What does mean Inter Cloud Resource Management? 2
- 2.5.a Define Two phases of Map Reduce. 2
- 2.5.b Define the term “ Cloud federation”. 2