**Roll No: -----**



### UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

**End Semester Examination, December 2017** 

Program : B.Tech.CSE + BAO Semester - VII
Subject (Course): BAO and CLOUD Max. Marks: 100
Course Code : CSIB 455 Duration : 3 Hrs

No. of page/s:

### **Section A**

# Attempt all questions. Each carries equal marks. (5x4 = 20 marks)

- 1. Which technology is used to set up a secure channel? Explain its features.
- 2. Explain Application Virtualization and its benefits.
- 3. Compare the area and relative savings of Virtualization and Cloud.
- 4. "The impact of virtualization can be classified under two major headings: Cost and Manageability". Throw light on this statement and discuss your views.

### **Section B**

## Attempt all questions in this Section. Each carries equal marks (10x4 = 40 marks)

- 5. a) What does cloud computing change for the provider? For the administrator? Explain [5]
  - b) Explain types of Virtualization based on the extent of hardware emulation. [5]
- 6. A cloud is composed of eight major components. Explain each component.
- 7. "Desktop Virtualization process involves creating a logical abstraction or a virtual image of the desktop and placing it on a centralized physical server." Discuss this statement [6+4] throwing light on how Desktop Virtualization works, the benefits of Desktop Virtualization
- 8. Explain architectures for Public, Private and hybrid cloud and also pros & cons of each.

#### OR

Define Grid, Cloud and Distributed computing as well as state their pros and cons [6+4]

## **Section C**

#### Attempt all questions in this Section. Each carries equal marks (20x2 = 40 marks)

9. Write short notes on (do any four):

[5x4=20]

- a) Mission-Critical workloads with examples
- b) Functions of the data center
- c) VLAN and its advantages
- d) Comparison of traditional IT and Virtualization
- e) Types of Hypervisors
- f) Hardware Assisted Virtualization
- 10. a) Explain cloud service models, their characteristics and examples for each type.
  - b) "IBM SmartCloud offers cloud analytics at different levels." Discuss.

#### OR

- a) Design the Factor matrix for Private Cloud.
- b) Explain how cloud-based analytics can help the businesses in different ways?

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# **Section A**

# Attempt all questions. Each carries equal marks. (5x4 = 20 marks)

- 1. Define Virtualization, and explain its benefits in three categories
- 2. Define IaaS, explain its features and examples
- 3. Define Grid computing and its evolution
- 4. State the cloud deployment decision factors and explain any one.

#### **Section B**

# Attempt all questions in this Section. Each carries equal marks (10x4 = 40 marks)

- 5. Which type of Virtualization provides streamlined migration of user applications from one OS Platform to another? Explain its features and benefits.
- 6. Define Public and Private Cloud. Explain the advantages & disadvantages of each [6+4]
- 7. A cloud is composed of eight major components. Explain each component.
- 8. Explain architectures for Public, Private and hybrid cloud; also pros & cons of each [6+4]

#### OR

Explain the five steps required for preparation for virtualization

## Section C

Attempt all questions in this Section. Each carries equal marks (20x2 = 40 marks)

9. Write short notes on (**do any four**):

[5x4=20]

- a) Hybrid cloud advantages and disadvantages.
- b) Cloudbursting
- c) Triggers for virtualization
- d) Use of cloud analytics for competitive advantage
- e) Layers in Xen Server
- f) Types of storage virtualization
- 10. a) Explain cloud service models, their characteristics and examples for each type.
  - b) "IBM cloud-based analytics can help organizations drive their business." Discuss.

#### OR

- a) Design the Factor matrix for Public Cloud.
- b) Explain cloud deployment attributes in a tabular form for Private, Hosted Private and Public Community Clouds.