


**V SEMESTER B.TECH. (INFORMATION TECHNOLOGY/COMPUTER AND  
COMMUNICATION ENGINEERING)**
**MAKE UP EXAMINATIONS, JANUARY 2019**
**SUBJECT: PROGRAM ELECTIVE-1 CLOUD COMPUTING [ICT 4017]**
**REVISED CREDIT SYSTEM**
**(01/01/2019)**

Time: 3 Hours

MAX. MARKS: 50

**Instructions to Candidates:**

- ❖ Answer ALL the questions.
- ❖ Missing data if any, may be suitably assumed.

- 1A. A company named XYZ wants highly scalable virtualization solution giving good performance. Which type of hypervisor they need to use? Explain the suggested type in detail. Compare it with the other type. 5
- 1B. Explain the two methods for VM replication? Explain in detail. 3
- 1C. Describe what is meant by distributed denial of service attack? 2
- 2A. With a neat diagram explain the techniques that support memory over-commitment in hypervisor. 5
- 2B. With an example, explain a mapreduce program. 3
- 2C. What is the key disadvantage of an image based back up of a VM? 2
- 3A. Let us assume that three LUN's are created and presented to one or more compute systems using traditional provisioning methods. The total capacity of storage is 3TB. The size of LUN1 is 1000 GB of which 300 GB is used. The size of LUN2 is 500 GB of which 100 GB is used. The size of LUN3 is 800 GB of which 200 GB is used. What is the total amount allocated but unused, used capacity? How much memory is available for new application? To improve the resource utilization suggest and explain a technique with a neat diagram. With this technique how much storage becomes available for new applications? 5
- 3B. Describe automatic storage tiering in detail. 3
- 3C. List the VM characteristics that are helpful in Business Continuity planning and implementation. 2
- 4A. A multinational company wants to create a virtual machine running windows OS on a machine A which is running hypervisor. It has several servers and machines running Windows OS connected in the network. The availability percentage should be as high as possible. Which type of P2V conversion is suggested for this situation? Explain suggested conversion and compare it with other type. 5

- 4B. What is Service Oriented Architecture? Explain the methods used for Service 3

creation with neat diagrams.

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| <b>4C.</b> | Discuss the role of User Access Management Software                                                            | <b>2</b> |
| <b>5A.</b> | Mention Security Concerns and threats for a Virtual Data Center and explain.                                   | <b>5</b> |
| <b>5B.</b> | Outline the components of Virtual Desktop Infrastructure with a neat diagram and give its merits and demerits. | <b>3</b> |
| <b>5C.</b> | Explain any five essential Cloud Characteristics.                                                              | <b>2</b> |