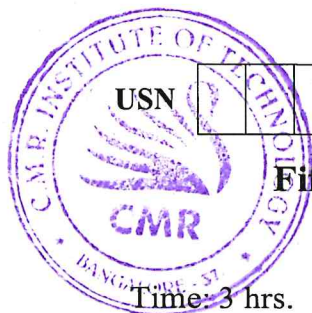


# CBCS SCHEME



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16/17MCA542

**Fifth Semester MCA Degree Examination, Jan./Feb. 2021**

## **Cloud Computing**

Time: 3 hrs.

Max. Marks: 80

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. Explain the evolution of internet computing. (08 Marks)  
b. Describe clusters of Co-operative computers with a neat diagram. (08 Marks)

OR

- 2 a. Write a note on IoT and cyber physical systems. (06 Marks)  
b. Illustrate with a neat diagram on peer-to-peer network families. (10 Marks)

### Module-2

- 3 a. Write a note on SOA. (05 Marks)  
b. Describe Amdahl's law with respect to performance. (05 Marks)  
c. Define and explain system availability. (06 Marks)

OR

- 4 a. Elaborate on energy efficiency in distributed computing. (08 Marks)  
b. Discuss about parallel and distributed programming models in detail. (08 Marks)

### Module-3

- 5 a. Explain various levels of implementing virtualization. (08 Marks)  
b. Describe the different steps in live VM migration. (08 Marks)

OR

- 6 a. Briefly explain about the virtualization support at the OS level. (10 Marks)  
b. Explain Xen Architecture with a neat diagram. (06 Marks)

### Module-4

- 7 a. Explain the following:  
(i) Public cloud (ii) Private cloud (iii) IaaS (iv) PaaS (08 Marks)  
b. Explain design challenges in cloud architecture development. (08 Marks)

OR

- 8 a. Illustrate about public cloud platforms: AWS and Azure. (08 Marks)  
b. Explain data and software protection techniques of cloud computing. (08 Marks)

### Module-5

- 9 a. Discuss about programming support of Google app engine with a neat diagram. (10 Marks)  
b. Describe Amazon Simple Storage Service. (06 Marks)

OR

- 10 a. Explain about programming on Amazon EC2. (06 Marks)  
b. Illustrate with a neat diagram on Architecture and components of Manjrasoft Aneka Cloud. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.