

# CBCS SCHEME

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16/17MCA542

## Fifth Semester MCA Degree Examination, Dec.2019/Jan.2020 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. Outline the evolutionary trend towards parallel, distributed and cloud computing. (08 Marks)  
b. Describe Internet of Things (IOT) and Cyber Physical Systems (CPS). (08 Marks)

OR

- 2 a. Outline the cluster of cooperative computers. (08 Marks)  
b. Describe P2P networks and Overlays networks. (08 Marks)

### Module-2

- 3 a. Describe Internet Cloud. Explain the cloud landscape based on three cloud service models with appropriate illustration. (08 Marks)  
b. Describe how cloud computing is cost effective compared to traditional IT computing. (08 Marks)

OR

- 4 a. Explain the Network threats and data integrity in distributed or cloud computing system. (08 Marks)  
b. Discuss Energy efficiency in Distributed computing. (08 Marks)

### Module-3

- 5 a. Explain virtualization and also describe the various levels of virtualization implementation. (10 Marks)  
b. Explain in brief about the virtualization support at OS – level. (06 Marks)

OR

- 6 a. Describe Physical clusters and Virtual clusters with the help of a neat diagram. (08 Marks)  
b. Explain briefly about Cloud OS for virtualized data centers. (08 Marks)

### Module-4

- 7 a. Illustrate AWS architecture with a neat diagram. (12 Marks)  
b. Describe the design objectives of cloud. (04 Marks)

OR

- 8 a. Illustrate Microsoft Window's Azure platform for cloud computing. (12 Marks)  
b. Write briefly the extended cloud computing services. (04 Marks)

### Module-5

- 9 a. Explain MapReduce and the various steps involved in the MapReduce data flow. (08 Marks)  
b. Describe Big Table and the building blocks of Big Table. (08 Marks)

OR

- 10 a. Outline in detail the architecture of the Google File System (GFS). (08 Marks)  
b. Write short notes about emerging Cloud Software Environments. (08 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.