## CBCS SCHEME

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### Sixth Semester B.E. Degree Examination, Jan./Feb. 2023
### Cloud Computing and Its Applications

Time: 3 hrs.                                                Max. Marks: 100

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

#### Module-1

1   a.   What is cloud computing? Explain the cloud computing reference model with neat diagram.
                                                                    (05 Marks)
    b.   Explain advantages and disadvantages of virtualization.    (07 Marks)
    c.   List any four different computing platform and technologies. (08 Marks)

#### OR

2   a.   Discuss the taxanomy of virtualization. Explain Hardware virtualization techniques.
                                                                    (08 Marks)
    b.   What are the characteristics of virtualized environment?   (06 Marks)
    c.   Explain two types of Hypervisor?                           (06 Marks)

#### Module-2

3   a.   With a help of a diagram, explain IaaS Reference model.    (08 Marks)
    b.   What are the candidate sectors and factors and benefits of community cloud? (08 Marks)
    c.   What are the main characteristics of Aneka?                (04 Marks)

#### OR

4   a.   Examine types of services hosted in Aneka container and its use? (08 Marks)
    b.   Discuss the logical organization of Aneka cloud.           (06 Marks)
    c.   What are the open challenges of cloud computing?           (06 Marks)

#### Module-3

5   a.   Define Task Computing? List and explain computing categories related to task computing.
                                                                    (08 Marks)
    b.   With the help of diagram, explain Domain Decomposition and functional decomposition
         techniques for parallel computation with threads.         (08 Marks)
    c.   With an example, explain parameters sweep application.     (04 Marks)

#### OR

6   a.   With a neat diagram, explain MPI program structure.        (06 Marks)
    b.   List the difference between Aneka thread V/s common thread. (06 Marks)
    c.   Explain offspring workflow manager architecture with a neat diagram. (08 Marks)

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## Module-4

7   a.   What is data Intensive computing? List the challenges.          (06 Marks)
    b.   Explain the variation and extension of Map Reduce?              (08 Marks)
    c.   What is google Bigdata?                                          (06 Marks)

**OR**

8   a.   Explain the types of High performance distributed file storage and cloud storage.   (10 Marks)
    b.   List out the real examples of MapReduce model.                   (05 Marks)
    c.   List Five parameter that can be controlled in Aneka Map reduce programming.   (05 Marks)

## Module-5

9   a.   Describe Amazon EC2 and its basic features.                     (06 Marks)
    b.   What are the core components of Azure?                           (06 Marks)
    c.   Describe an application on cloud computing technologies in biology and geosciences.
                                                                          (08 Marks)

**OR**

10  a.   Explain Amazon S3 key concepts.                                 (05 Marks)
    b.   Discuss Run time and storage support of Google appengine.       (10 Marks)
    c.   What are web desktops? What is their relation with cloud computing?   (05 Marks)

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