I MTECH II SEMESTER

COMPUTER SCIENCE & ENGINEERING

CLOUD COMPUTING (16CS5811)

UNIT - I

1 a) Explain the NIST Definition of Cloud Computing

b) Draw the Architecture of Cloud Computing defining the layers Iaas, Paas, Saas

2 a) Explain SISD, SIMD, MISD and MIMD

b) List and explain principles of Cloud Computing

3 a) Draw ANEKA Architecture

b) Explain ANEKA Architecture

4 a) List and Explain the service models of Cloud Computing

b) Explain the deployment models of Cloud Computing

5 a)List the challenges associated with cloud computing

b) Explain any two challenges along with solutions in detail

6 a) Draw the Hadoop Architecture

b) Explain Hadoop Architecture

7. Explain the role of Map Reduce Framework with an example

8. a) Explain the advantages of cloud computing

b) Explain the drawbacks of Cloud Computing

9 Differentiate Cluster, Grid and Cloud Computing

10. Draw a neat sketch with an explanation how HPC and HTC leads to Cloud Computing, IOT and Virtualization.

UNIT - II

1 a) List the Platforms of Cloud Computing

   b) Explain how cloud platform plays an important role in Health care Industry

2 a) Explain the cloud computing platform in Education domain

   b) Explain the concept of Live Migration in Cloud computing

3 a) Explain different Migration Models in Virtualization

   b) List different kinds of Virtualization

4 a) Explain the role of Hypervisor in Virtualization

   b) Explain the need of Virtualization in Cloud Computing

5 a) Explain Comet Cloud in detail with Architecture

   b) Explain T – Systems in detail with a neat sketch

6. Explain two kinds of Supervisors

       i) Bare metal Hypervisor   ii) Host based Hypervisor

7. Draw and explain about various steps involved in Migration of the resources in virtualization

8. Explain the platforms of Cloud Computing in Industry

9.a) Explain the terms

       i) NIST   ii) Virtualization

   b) Explain the terms

       i) Cluster Computing   ii) Grid Computing

10. Explain the Architectures of

       i) ESXI   ii) EC2   iii) VMWARE

UNIT – III

1 a) List the applications of Cloud Computing

   b) Explain the applications of Cloud Computing in Health Domain

2 a) Explain the cloud computing applications in Education domain

   b) Explain the Cloud computing Paradigm

3 a) Explain the applications of Cloud Computing in Scientific Domain

   b) Briefly illustrate how resources can be managed on Cloud

4 a) Draw a neat sketch of Federated Cloud Computing Architecture

   b) Explain the Federated Cloud Computing Architecture

5 a) Demonstrate the applications in Business Domain

   b) Demonstrate the applications in Consumer Domain

6. Explain SLA Management in Cloud Computing in detail

7. Draw and explain about various steps involved in Design of a Cloud Computing Application

8. Explain the applications of Cloud Computing in Industry

9. Explain the applications for Iaas, Paas and Saas

10. Explain the Impact of Cloud Computing on the role of Corporate IT

UNIT- IV

1. a) Explain the Python Basics
    b) Mention an example for each with explanation
2. a) Explain in detail about how python programming is suitable for cloud
    b) Justify the python adaption for cloud with an example
3. a) List the steps involved in Cloud Application Design using Python
    b) Design an application in Cloud using Python
4. Design a program for Google App Engine with Python
5. Design a Login Authentication App using Google App Engine
6. a) Explain in detail in how Logic and UI can be optimized.
    b) Develop an Application with UI and Logic
7. Explain how UI can be made pretty with templates and CSS
8. Design Interactive Applications using PYTHON
9. a)Explain Map Reduce Programming Model
    b) Explain Map Reduce Programming Implementation
10. a)   Explain Map Reduce Programming Model
     b) Explain in detail how data can be managed in the cloud

UNIT -V

1. Explain how the complete Cloud management can be done efficiently.
2. Explain how the change management can be done efficiently in the Cloud
3. Explain how the Security can be provided for Cloud Applications
4. Explain how the Data Security can be provided for Cloud Applications
5. Explain about the legal issues in Cloud Computing
6. How Product Readiliness can be achieved for Cloud Services
7. What are the best practices for making the Cloud Applications Secure
8. Explain with blue prints or prototypes for ensuring Data Security on Cloud
9. Explain the Organizational Readiness for Cloud Computing
10. Explain the future trends and Challenges in Cloud Computing