UNIVERSITY OF MADRAS

B.Sc. DEGREE COURSE IN COMPUTER SCIENCE
SYLLABUS WITH EFFECT FROM 2020-2021

BCE-CSC16

CORE: INTRODUCTION TO CLOUD COMPUTING

(Common paper to B.Sc.Computer Science with Data Science and Computer Science with AI)

III YEAR / VI SEM

OBJECTIVES:

- To understand the concepts in Cloud Computing and its Security
- To understand the evolving computer model caned cloud computing.
- To introduce the various levels of services that can be achieved by cloud.

OUTCOMES:

- To explain and apply levels of services of Cloud
- To describe the security aspects in cloud.

UNIT - I

Cloud Computing Foundation: Introduction to Cloud Computing – Move to Cloud Computing – Types of Cloud – Working of Cloud Computing

UNIT - II

Cloud Computing Architecture : Cloud Computing Technology – Cloud Architecture – Cloud Modeling and Design - Virtualization : Foundation – Grid, Cloud and Virtualization – Virtualization and Cloud Computing

UNIT - III

Data Storage and Cloud Computing : Data Storage – Cloud Storage – Cloud Storage from LANs to WANs – Cloud Computing Services : Cloud Services – Cloud Computing at Work

UNIT - IV

Cloud Computing and Security : Risks in Cloud Computing – Data Security in Cloud – Cloud Security Services – Cloud Computing Tools : Tools and Technologies for Cloud – Cloud Mashaps – Apache Hadoop – Cloud Tools

UNIT - V

Cloud Applications – Moving Applications to the Cloud – Microsoft Cloud Services – Google Cloud Applications – Amazon Cloud Services – Cloud Applications

TEXT BOOK:

1. A.Srinivasan and J.Suresh, "*Cloud Computing – A Practical Approach for Learning and Implementation*", Pearson India Publications 2014.

REFERENCE BOOK:

1. Rajkumar Buyya, James Broberg, Andrzej , "*Cloud Computing: Principles and Paradigms*", Wiley India Publications 2011.
2. Arshdeep Bahga and Vijay Madisetti ,"*Cloud Computing – A Hands on Approach*", Universities Press (India) Pvt Ltd. 2014.

WEB REFERENCES:

- NPTEL & MOOC courses titled Cloud computing
- https://nptel.ac.in/courses/106105167/