SYLLABUS

CCS336 CLOUD SERVICES MANAGEMENT L T P C

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COURSE OBJECTIVES:

• Introduce Cloud Service Management terminology, definition & concepts

• Compare and contrast cloud service management with traditional IT service management 111

• Identify strategies to reduce risk and eliminate issues associated with adoption of cloud services

• Select appropriate structures for designing, deploying and running cloud-based services in a business environment

• Illustrate the benefits and drive the adoption of cloud-based services to solve real world problems

UNIT I CLOUD SERVICE MANAGEMENT FUNDAMENTALS 6

Cloud Ecosystem, the Essential Characteristics, Basics of Information Technology Service Management and Cloud Service Management, Service Perspectives, Cloud Service Models, Cloud Service Deployment Models

UNIT II CLOUD SERVICES STRATEGY 6

Cloud Strategy Fundamentals, Cloud Strategy Management Framework, Cloud Policy, Key Driver for Adoption, Risk Management, IT Capacity and Utilization, Demand and Capacity matching, Demand Queuing, Change Management, Cloud Service Architecture

UNIT III: CLOUD SERVICE MANAGEMENT 6

Cloud Service Reference Model, Cloud Service Lifecycle, Basics of Cloud Service Design, Dealing with Legacy Systems and Services, Benchmarking of Cloud Services, Cloud Service Capacity Planning, Cloud Service Deployment and Migration, Cloud Marketplace, Cloud Service Operations Management

UNIT IV CLOUD SERVICE ECONOMICS 6

Pricing models for Cloud Services, Freemium, Pay Per Reservation, Pay per User, Subscription based Charging, Procurement of Cloud-based Services, Capex vs Opex Shift, Cloud service Charging, Cloud Cost Models

UNIT V CLOUD SERVICE GOVERNANCE & VALUE 6

IT Governance Definition, Cloud Governance Definition, Cloud Governance Framework, Cloud Governance Structure, Cloud Governance Considerations, Cloud Service Model Risk Matrix, Understanding Value of Cloud Services, Measuring the value of Cloud Services, Balanced Scorecard, Total Cost of Ownership

30 PERIODS

PRACTICAL EXERCISES: 30 PERIODS

1. Create a Cloud Organization in AWS/Google Cloud/or any equivalent Open Source cloud softwares like Open stack, Eucalyptus, Open Nebula with Role-based access control

2. Create a Cost-model for a web application using various services and do Cost-benefit analysis

3. Create alerts for usage of Cloud resources

4. Create Billing alerts for your Cloud Organization 112

5. Compare Cloud cost for a simple web application across AWS, Azure and GCP and suggest the best one

TOTAL: 60 PERIODS

TEXT BOOKS

1. Cloud Service Management and Governance: Smart Service Management in Cloud Era by Enamul Haque, Enel Publications

2. Cloud Computing: Concepts, Technology & Architecture by Thomas Erl, Ricardo Puttini, Zaigham Mohammad 2013

3. Cloud Computing Design Patterns by Thomas Erl, Robert Cope, Amin Naserpour REFERENCES 1. Economics of Cloud Computing

REFERENCES

1. Economics of Cloud Computing by Praveen Ayyappa, LAP Lambert Academic Publishing

2. Mastering Cloud Computing Foundations and Applications Programming Rajkumar Buyya, Christian Vechhiola, S. Thamarai Selvi

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