

कार्यालय प्राचार्य, छत्तीसगढ़ इंस्टीट्यूट ऑफ टेक्नॉलजी, जशपुर (छ.ग.)

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LESSON PLAN SESSION JAN – JUN 2026

SUBJECT: **CLOUD COMPUTING** SEMESTER: **6TH** BRANCH: - **COMPUTER SCIENCE & ENGINEERING**

| UNIT NUMBER | NAME OF THE TOPIC | NO OF CLASS REQUIRED | REMARK |
|--|--|----------------------|--------|
| UNIT 01. Overview of Cloud Computing | 1.1 Essentials of Cloud Computing, 1.2 Need of Cloud Computing 1.2.1 Reduced Costs, 1.2.2 Scalability, | 01 | |
| | 1.2.3 Remote Access, 1.2.4 Disaster Relief, 1.2.5 Ease of Implementation 1.4 Elastic Computing | 01 | |
| | 1.2.6 Skilled Vendors, 1.2.7 Response Time, 1.2.8 Easy to Customize, 1.2.9 Virtual Provisioning, 1.2.10 Fully Automated Storage Tiering-FAST | 01 | |
| | 1.3 History of Cloud Computing, 1.3.1 Client Server Technology | 01 | |
| | 1.3.2 Peer to Peer Approach, 1.3.3 Distributed Computing | 01 | |
| | 1.3.4 Evolution of Cloud Computing, 1.3.5 Benefits of Cloud Computing, 1.3.6 Limitations of Cloud Computing | 01 | |
| Unit 02. Factors of Cloud Computing | 2.1 Cloud Data Center Requirements | 01 | |
| | 2.1.1 Architectural Influences, 2.1.2 Operational Influences | 02 | |
| | 2.2 Influence of Cloud Computing on Business Companies | 01 | |
| | 2.2.1 Business Alignment, 2.2.2 Governance | 01 | |
| Unit 03. Cloud Computing Architecture | 3.1 Grid Computing framework, 3.2 Grid Architecture | 01 | |
| | 3.2.1 Advantages of Grid Computing, 3.2.2 Challenges of Grid Computing | 01 | |
| | 3.3 Cloud Computing Architecture | 01 | |
| | 3.4 Key Design aspects of Cloud Architecture, Cloud Services and Cloud Applications | 01 | |
| | 3.5 Characteristics of Cloud and Grid Computing | 01 | |
| Unit 04. Models of Cloud Computing | 4.1 Cloud Service Models, 4.1.1 Software as a Service, 4.1.2 Platform as a Service, 4.1.3 Infrastructure as a Service | 02 | |
| | 4.2 Cloud Computing Sub Service Models, 4.2.1 Everything as a Service, 4.2.2 Compliance as a Service, | 01 | |
| | 4.2.3 Identity as a Service, 4.2.4 Database as a Service, 4.2.5 Storage as a Service | 01 | |
| | 4.2.6 Communication as a Service, 4.2.7 Security as a Service, | 01 | |
| | 4.2.8 Monitoring as Service, 4.2.9 Desktop as a Service, 4.2.10 Compute Capacity as a Service | 01 | |
| | 4.3 Cloud Deployment Models, 4.3.1 Public Clouds, 4.3.2 Private Clouds, 4.4.3 Community Clouds, 4.4.4 Hybrid Clouds | 01 | |
| Unit 05. Cloud Data Centre and Virtualization | 5.1 Cloud Data Center core elements | 01 | |
| | 5.2 Storage Network Technologies and Virtualization | 01 | |
| | 5.3 Object based storage technologies | 01 | |
| | 5.4 Cloud Backup, 5.5 Cloud and Disaster recovery | 01 | |
| | 5.6 Traditional Data Centre Management | 01 | |
| | 5.7 Virtualization Technology, 5.7.1 At Server, 5.7.2 At Network | 01 | |
| | 5.7.3 At Desktop and Application | 01 | |
| Total Class Required | | 30 | |

Lecturer Name & Sign: - KAMLESH KUMAR SAHU
LECTURER, CSE, CGIT, JASHPUR

HOD CSE Sign: -