**Lesson Plan**

**Name of faculty :** Saravjit Chahal

**Discipline :** Computer Engineering

**Semester :** 5

**Subject :** Cloud Computing

**Lesson Plan Duration :** 15 Weeks (from September 15 to January 16)

**Work Load (Lecture/ Practical) per week (in hours):** Lectures-03

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| **Week** | **Theory** | | **Practical** | |
| **Lecture day** | **Topic**  **(including assignment /**  **test)** | **Practical day** | **Topic** |
| 1st | 1st | Evolution of Cloud Computing | 1st | Introduction to Cloud Vendors: Amazon, Microsoft, IBM. |
| 2nd | Cloud Computing Overview |
| 3rd | Cloud Computing Overview |
| 2nd | 4th | Characteristics, | 2nd | Introduction to Cloud Vendors: Amazon, Microsoft, IBM contd. |
| 5th | Applications, |
| 6th | Benefits, Challenges |
| 3rd | 7th | Cloud Computing Service Models: Infrastructure as a Service | 3rd | Introduction to Cloud Vendors: Amazon, Microsoft, IBM contd. |
| 8th | Platform as a Service, Software as a Service |
| 9th | Cloud Computing Deployment Models: Private Cloud |
| 4th | 10th | Public Cloud | 4th | Setting up Virtualization using Virtualbox/VMWare Hypervisor |
| 11th | Community Cloud, Hybrid Cloud |
| 12th | Major Cloud Service providers |
| 5th | 13th | Overview of SLA | 5th | Setting up Virtualization using Virtualbox/VMWare Hypervisor  Contd. |
| 14th | Types of SLA |
| 15th | Sessional test |
| 6th | 16th | SLA Life Cycle | 6th | Setting up Virtualization using Virtualbox/VMWare Hypervisor  Contd. |
| 17th | SLA Management Process |
| 18th | Overview of Virtualization |
| 7th | 19th | Types of Virtualization | 7th | Introduction to OwnCloud |
| 20th | Types of Virtualization |
| 21st | Types of Virtualization |
| 8th | 22nd | Benefits of Virtualization | 8th | Introduction to OwnCloud  Contd. |
| 23rd | Hypervisors |
| 24th | Hypervisors |
| 9th | 25th | Cloud Security | 9th | Installation and configuration of OwnCloud software for SaaS |
| 26th | Infrastructure Security |
| 27th | Data Security |
| 10th | 28th | Data Security Issues | 10th | Installation and configuration of OwnCloud software for SaaS contd. |
| 29th | Privacy Issues |
| 30th | Sessional test |
| 11th | 31st | Legal Issues in Cloud Computing | 11th | Installation and configuration of OwnCloud software for SaaS contd. |
| 32nd | Overview Cloud Storage |
| 33rd | Storage as a Service |
| 12th | 34th | Benefits | 12th | Accessing Microsoft AZURE cloud-services |
| 35th | Challenges |
| 36th | Storage Area Networks (SANs) |
| 13th | 37th | Scheduling in Cloud | 13th | Accessing Microsoft AZURE cloud-services  Contd. |
| 38th | Overview of Scheduling problem |
| 39th | Different types of scheduling |
| 14th | 40th | Different types of scheduling | 14th | Cloud Simulation Software Introduction: CloudSim |
| 41st | Scheduling for independent tasks |
| 42nd | Scheduling for independent tasks |
| 15th | 43rd | Scheduling for dependent tasks | 15th | Cloud Simulation Software Introduction: CloudSim contd. |
| 44th | Static vs. Dynamic scheduling |
| 45th | Sessional test |