**Lesson Plan Name of the Faculty** : Ms. Neelam Rani

**Discipline** **:** Computer Engg.

**Semester** **:** 5th Sem

**Subject** **:** **Cloud Computing**

**Lesson Plan Duration** : 15 weeks

**Work Load (Lecture / Practical) per week (in hours): Lectures-03, Practical-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** | Characteristics |
| **2nd** | **4th** |  Applications | 2nd | Introduction to Cloud Vendors: Amazon, Microsoft, IBM. |
| **5th** |  Benefits |
| **6th** | Challenges. Assignment-1 |
| **3rd** | **7th** | Revision Test-1 | 3rd | Practical checking andtesting  |
| **8th** | Cloud Computing Service Models: Infrastructure as a Service, |
| **9th** | Platform as a Service Software as a Service;  |
| **4th** | **10th** | Cloud Computing Deployment Models : Private Cloud | 4th | Setting up Virtualization using Virtualbox/VMWare Hypervisor |
| **11th** | Public Cloud |
| **12th** | Community Cloud |
| **5th** | **13th** |  Hybrid Cloud, Assignment | 5th | Setting up Virtualization using Virtualbox/VMWare Hypervisor |
| **14th** | Revision Test-2 |
| **15th** | Overview of SLA |
| **6th** | **16th** |  Types of SLA | 6th | Practical checking andtesting |
| **17th** | SLA Life Cycle |
| **18th** |  SLA Management Process. Assignment |

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| **Week** | **Theory** | **Practical** |
| **Lecture day** | **Topic****(including assignment / test)** | **Practical Day** | **Topic** |
| **7th** | **19th** | Revision Test-3 | 7th | Introduction to OwnCloud  |
| **20th** |  Overview of Virtualization |
| **21st** | Types of Virtualization |
| **8th** | **22nd** |  Types of Virtualization | 8th | Introduction to OwnCloud  |
| **23rd** | Types of Virtualization |
| **24th** | Types of Virtualization |
| **9th** | **25th** | Types of Virtualization | 9th | Installation and configuration of OwnCloud software for SaaS |
| **26th** | Benefits of Virtualization |
| **27th** |  Hypervisors. Assignment |
| **10th** | **28th** |  Revision Test-4 | 10th | Installation and configuration of OwnCloud software for SaaS |
| **29th** | Infrastructure Security |
| **30th** |  Data Security & Privacy Issues |
| **11th** | **31st** |   Data Security & Privacy Issues | 11th | Practical checking andtesting |
| **32nd** | Legal Issues in Cloud Computing. Assignment. |
| **33rd** | Revision Test-5 |
| **12th** | **34th** | Overview ofCloud Storage | 12th | Accessing Microsoft AZURE cloud-services |
| **35th** | Storage as a Service, |
| **36th** | Benefits and Challenges |
| **13th** | **37th** |  Storage Area Networks (SANs). | 13th | Accessing Microsoft AZURE cloud-services |
| **38th** |  Storage Area Networks (SANs). Assignment |
| **39th** | Revision Test-6 |
| **14th** | **40th** | Overview of Scheduling problem | 14th | Cloud Simulation Software Introduction: CloudSim |
| **41st** | Different types of scheduling |
| **42nd** | Different types of scheduling |

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| **Week** | **Theory** | **Practical** |
| **Lecture day** | **Topic****(including assignment / test)** | **Practical Day** | **Topic** |
| **15th** | **43rd**  | Different types of scheduling | 15th  | Cloud Simulation Software Introduction: CloudSim |
| **44th** | Scheduling for independent and dependent tasks |
| **45th**  | Scheduling for independent and dependent tasks |
| **16th** | **46th**  | Static vs. Dynamic scheduling. Assignment | 16th  | Practical checking andtesting |
| **47th**  | Revision Test-7 |
| **48th** | Revision |
| **17th** | **49th** | Revision | 17th  | Revision of Practicals |
| **50th** | Revision |
| **51st**  | Revision |