JES, JHARSUGUDA

Lesson Plan

Name	**SABYASACHI SARANGI**	Total Hrs planned:60 Total Hrs per week: 04
Designation	PTGF	Pre requisite :
Subject: Code/Name	TH 3	Cloud computing
Semester/Programme/ Department	6th Sem / Diploma/ Information Technology	
Course Objective	Understand the basic concepts of cloud and cloud architecture. Learn about different cloud computing technology. - Learn about the service levels for cloud applications. - Provides a practical exposure to professionals intending to work in cloud computing • environment. Understand the map reduce model and its application - Learn about basic concepts of software productivity in a cloud - Understand web services and platforms	

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Sl.No	Detail Description of Topics/Subtopics	Mode of Lecture
1	**Chapter1: " Introduction To Cloud Computing" Cloud Computing**	Chalk & talk
2	Historical development	Chalk & talk
3	Vision of Cloud Computing	Chalk & talk
4	Characteristics of Cloud computing	PPT
5	Cloud computing Reference model	PPT
6	Cloud computing environment	NPTEL VIDEO
7	Cloud Service requirements	Questionnaires & Class Test
8	Cloud and Dynamic Infrastructure	Chalk & talk
9	Cloud Adoption	NPTEL VIDEO
10	Cloud applications	Chalk & talk
11	Revision of Chapter 1	NPTEL VIDEO
12	**Chapter2: "Cloud Computing Architecture" Cloud Computing**	Chalk & talk
13	Introduction Cloud Computing Architecture	NPTEL VIDEO
14	Cloud Reference Model	Questionnaires & Class Test
15	Types of Clouds	Chalk & talk
16	Cloud Interoperability and standards	Chalk & talk
17	Cloud computing Interoperability use cases	PPT
18	Role of standards in Cloud Computing environment	Chalk & talk
19	Revision of Chapter 2	Chalk & talk
20	**Chapter3: " Scalability and Fault Tolerance " Cloud Computing**	Chalk & talk
21	Introduction Scalability and Fault Tolerance	NPTEL VIDEO
22	Scalability and Fault Tolerance	Chalk & talk
23	Cloud solutions	Chalk & talk

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24	Cloud Ecosystem	NPTEL VIDEO
25	Cloud Business process management	NPTEL VIDEO
26	Portability and Interoperability	Questionnaires & Class Test
27	Cloud Service management	Chalk & talk
28	Cloud Offerings	PPT
29	Testing under Control	Chalk & talk
30	Cloud service Controls	Chalk & talk
31	Virtual desktop Infrastructure	NPTEL VIDEO
32	Revision of Chapter 3	NPTEL VIDEO
33		Questionnaires & Class Test

34	**Chapter 4:** Cloud Management and Virtualisation Technology – Cloud Computing	Chalk & talk
35	Create a virtualised Architecture	PPT
36	Data Centre	Chalk & talk
37	Resilience	NPTEL VIDEO
38	Agility	Chalk & talk
39	Cisco Data Centre Network architecture	Chalk & talk
40	Storage	Chalk & talk
41	Provisioning	Chalk & talk
42	Asset Management	Chalk & talk
43	Concept of Map Reduce	Chalk & talk
44	Cloud Goverance	NPTEL VIDEO
45	Load Balancing	NPTEL VIDEO
46	High Availability	NPTEL VIDEO
47	Disaster Recovery	NPTEL VIDEO
48	Revision of Chapter 4	NPTEL VIDEO
49	**Chapter 5:** Virtualisation – Cloud Computing	Questionnaires & Class Test
50	Virtualisation	Chalk & talk
51	Betwork Virtualisation	Chalk & talk
52	Desktop and Application Virtualisation	NPTEL VIDEO
53	Desktop as a service	Chalk & talk
54	Local desktop Virtualisation	PPT
55	Virtualisation benefits	Chalk & talk
56	Server Virtualisation	Questionnaires & Class Test
57	Block and File level Storage Virtualisation	Chalk & talk
58	Virtual Machine Monitor	Chalk & talk
59	Infrastructure Requirements	NPTEL VIDEO

60	VLAN and VSAN	PPT
61	Revision of Chapter 5	NPTEL VIDEO
62	**Chapter 6:** Cloud Security – Cloud Computing	NPTEL VIDEO
63	Cloud Security Fundamentals	NPTEL VIDEO
64	Cloud security services	NPTEL VIDEO
65	Design Principles	NPTEL VIDEO
66	Secure Cloud software requirements	Questionnaires & Class Test
67	Policy Implementation	Chalk & talk
68	Cloud Computing Security Challenges	Chalk & talk
69	Revision of Chapter 6	Chalk & talk
70	**Chapter 7:** " Cloud Computing Security Architecture" – Cloud Computing	Chalk & talk
71	Architectural Considerations	Chalk & talk
72	Information Classification	Chalk & talk
73	Virtual Private Networks	Chalk & talk
74	Public Key and Encryption Key management	Chalk & talk
75	Digital certificates	Chalk & talk
76	Key management	Chalk & talk
77	Memory Cards	Chalk & talk
78	Implementing Identity Management	Chalk & talk
79	Controls and Autonomic System	Questionnaires & Class Test
80	Revision of Chapter 7	Chalk & talk
81	**Chapter 8:** " Market Based Management of Clouds " – Cloud Computing	Chalk & talk
82	Cloud Information security vendors	Chalk & talk
83	Cloud Federation, charactrization	Chalk & talk
84	Cloud Federation stack	Chalk & talk
85	Third Party Cloud service	NPTEL VIDEO
86	Case study	NPTEL VIDEO
87	Revision of Chapter 8	Questionnaires

		& Class Test
88	**Chapter 9:** " Hadoop " – Cloud Computing	Chalk & talk
89	Introduction	Chalk & talk
90	Data Source	NPTEL VIDEO
91	Data storage and Analysis	NPTEL VIDEO
92	Comparison with other system	Questionnaires & Class Test
93	Revision of Chapter 9	

BOOK

1. Cloud Computing; By : Pankaj Sharma, Katson Books
2. Cloud Computing : Dr. U.S. Pandey , Dr. KavitaChoudhary , S.Chand
3.Fundamentals of Cloud Computing : PrasantkumarPattnaik, ManasRanjanKabat , Souvik Pal, Vikas

SUBJECT FACULTY   H.O.D   ACADEMIC COORDINATOR   PRINCIPAL