

# JES, JHARSUGUDA

## Lesson Plan

Name	<b>MRS. BARSHARANI PATEL</b>	Total Hrs planned:60 Total Hrs per week: 04
Designation	PTGF	
Subject: Code/Name	<b>Th.3</b>	<b>SOFTWARE ENGINEERING</b>
<b>Semester/Programme/ Department</b>	<b>5<sup>th</sup> SEMESTER/ Diploma/ Information Technology</b>	
<b>Course Objective</b>	<ul style="list-style-type: none"><li>• Knowledge of basis SW engineering methods and practices and their appropriate application</li><li>• Basic knowledge and understanding of the analyses and design of complex system.</li><li>• Ability to apply software engineering principals and technique.</li><li>• Ability to develop maintain and evaluate large scale software system.</li><li>• Ability to perform independent , research and analysis.</li><li>• To communicate and coordinate competently by listening , speaking , reading and writing English for technical and general purposes.</li><li>• Ability to work as an effective member or leader of software engineering team.</li><li>• To manage time proses and resources effectively by competing demand to achieve personal and teams goals identify and analyses the common threats in each domain.</li></ul>	

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Sl No	Period / Class	Time (min)	Unit	Detail Description of Topics/Subtopics	Mode of Lecture	References (Text Book and reference book Page No __ to __)
1	1	55	1	<b>Introduction to Software Engineering.</b>	Chalk & talk	TB1: 1 to 53
2	255		1	Program vrs Software product	Chalk & talk	TB1: 6
3	355		1	Emergencies of Software Engineering.	Chalk & talk	TB1: 15
4	455	1		Computer System Engineering.	Chalk & talk	TB1: 25
5	555	1		Software Life Cycle Models.	Chalk & talk	TB1: 30 to 48
6	655			Classical Water fall model	Chalk & talk	TB1: 33 to 40
7	755			Iterative Water fall model	Chalk & talk	TB1: 41 to 42
8	855	1		Prototyping model	Chalk & talk	TB1: 43 to 44
9	955			Evolutionary model	Chalk & talk	TB1: 45 to 47
10	10	55	1	Spiral model	Chalk & talk	TB1: 48
11	11	55	1	Revision Chapter - 1	Questioners	
12	12	55	2	<b>Software Project Management</b>	Chalk & talk	TB1: 57 to 107
13	13	55	2	Responsibilities of Project Manager	Chalk & talk	TB1- 57 to 58
14	14 55		2	Project Planning	Chalk & talk	TB1 : 58
15	15	55	2	Metrics for project size estimation (LOC & FP)	Chalk & talk	TB1 : 61 to 63
16	16	55	2	Project Estimation Techniques	Chalk & talk	TB1 : 66 to 68
17	17	55	2	COCOMO Models, Basic, Intermediate and complete	Chalk & talk	TB1: 68 to 74
18	1855		2	Scheduling	Chalk & talk	TB1: 83
19	19	55	2	Organization and Team Structure	Chalk & talk	TB1: 89 to 91
20	20	55	2	Staffing	Chalk & talk	TB1: 93 to 94
21	21	55	2	Risk Management	Chalk & talk	TB1: 95 to 97

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22	22	55	2	Configuration Management.	Chalk & talk	TB1: 98 to 103
23	23	55	2	Revision Chapter - 2	Questioners	
24	24	55	3	<b>Requirement Analysis and Specification</b>	Chalk & talk	TB1: 108 to 148
25	25	55	3	Requirements gathering and analysis	Chalk & talk	TB1: 109 to 112
26	26	55	3	Software Requirements Specification. (SRS)	Chalk & talk	TB1: 114
27	27	55	3	Contents of SRS	Chalk & talk	TB1: 115
28	28	55	3	Characteristics of Good SRS	Chalk & talk	TB1: 115
29	29	55	3	Organization of SRS	PPT	TB1: 125
30	30	55	3	Techniques for representing complex logic.	Chalk & talk	TB1: 129
31	31	55	3	Revision Chapter - 3	Questioners	
32	32	55	4	<b>Software Design</b>	Chalk & talk	TB1: 149 to 202
33	33	55	4	What is a good S/W design.	Chalk & talk	TB1: 152
34	34	55	4	Cohesion and coupling.	Chalk & talk	TB1: 155 to 159
35	35	55	4	Eat arrangement	Chalk & talk	TB1: 160
36	36	55	4	S/W Design approaches	Chalk & talk	TB1: 162 to 163
37	37	55	4	Structured analysis	Chalk & talk	TB5: 172
38	38	55	4	Data Flow Diagrams	Chalk & talk	TB1: 172 to 193
39	39	55	4	Symbols used in DFD	Chalk & talk	TB1: 173
40	40	55	4	Designing DFD	Chalk & talk	TB1: 174
41	41	55	4	Developing DFD model of a system	Chalk & talk	TB1:177
42	42	55	4	Short coming of DFD	Chalk & talk	TB1:193
43	43	55	4	Structured Design	Chalk & talk	TB1: 194
44	44	55	4	Principles of transformation of DFD to Structure Chart	Chalk & talk	TB1: 196
45	45	55	4	Transform analysis and Transaction Analysis	Chalk & talk	TB1: 196 to 197
46	46	55	4	Design Review	Chalk & talk	TB1: 201
47	47	55	4	Revision Chapter - 4	Question	

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					ers	
48	48	55	5	<b>User Interface Design</b>	Chalk & talk	TB1: 300 to 322
49	49	55	5	Characteristics of good interface	Chalk & talk	TB1: 301
50	50	55	5	Basic concepts of UID	Chalk & talk	TB1: 303 to 304
51	51	55	5	Types of user interfaces	Chalk & talk	TB1: 305 to 307
52	52	55	5	Components based GUI development	Chalk & talk	TB1: 308 to 315
53	53	55	5	Revision Chapter - 5	Questioners	
54	54	55	6	<b>Software Coding And Testing</b>	Chalk & talk	TB1: 323 to 369
55	55	55	6	Coding	Chalk & talk	TB1: 324
56	56	55	6	Code Review	Chalk & talk	TB1: 326
57	57	55	6	Code walk through	Chalk & talk	TB1: 327
58	58	55	6	Code inspections and software Documentation	Chalk & talk	TB1: 327
59	59	55	6	Testing	Chalk & talk	TB1: 331 to 334
60	60	55	6	Unit Testing	Chalk & talk	TB1: 334 to 335
61	61	55	6	Black Box Testing	Chalk & talk	TB1: 336 to 338
62	62	55	6	Equivalence class partitioning and boundary value analysis	Chalk & talk	TB1: 336
63	63	55	6	White Box Testing	Chalk & talk	TB1: 338
64	64	55	6	Different White Box methodologies statement coverage branch coverage, condition coverage, path coverage, cyclamates complexity data flow based testing and mutation testing.	Chalk & talk	TB1: 338 to 347
65	65	55	6	Debugging approaches	Chalk & talk	TB1: 348
66	66	55	6	Debugging guidelines	Chalk & talk	TB1: 349
67	67	55	6	Integration Testing	Chalk & talk	TB1: 351
68	68	55	6	Phased and incremental integration testing	Chalk & talk	TB1: 352
69	69	55	6	System testing alphas beta and acceptance testing	Chalk & talk	TB1: 356
70	70	55	6	Performance Testing, Error seeding	Chalk & talk	TB1: 357
71	71	55	6	General issues associated with testing	Chalk & talk	TB1: 360
72	72	55	6		Question	

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				Revision Chapter - 6	ers	
73	73	55	7	<b>Software Reliability</b>		TB1: 370 to 395
74	74	55	7	Software Reliability	Chalk & talk	TB1: 371
75	75	55	7	Different reliability metrics	Chalk & talk	TB1: 373
76	76	55	7	Reliability growth modeling	Chalk & talk	TB1: 375
77	77	55	7	Software quality	Chalk & talk	TB1: 377
78	78	55	7	Software Quality Management System	Chalk & talk	TB1: 377 to 379
79	79	55		Problems and Revision	Chalk & talk	
				Text Book- 1 (TB1): Fundamentals of Software Engineering. – Rajib Mall, Prentice hall of Indi		

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## Lesson Plan

Name	<b>SABYASACHI SARANGI</b>	Total Hrs planned:60 Total Hrs per week: 04
Designation	PTGF	Pre requisite: Programming Using C
Subject: Code/Name	<b>CST-501</b>	<b>Computer Graphics &amp; Multimedia</b>
<b>Semester/Programme/ Department</b>	5 <sup>th</sup> Semester/ Diploma/ Information Technology	
<b>Course Objective</b>	<b>After completion of this course the student will be able to:</b> Graphics and Multimedia-now a day probably the most talked about technology in the field of computer. This technology is nowadays largely adopted by most computer-based applications to bridge the gap between a human user & the computer. By this, multiple media are implemented and used in computer-based application to enhance their understanding ability before a common man. These multiple media include text, sound, video, graphics animation etc. This paper will expose the students to the various concepts of these media and their implementation in computer-based application. This will also expose the students to various multimedia implementation techniques like data compression, & various multimedia standards.	

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Sl. No	Detail Description of Topics/Subtopics	Mode of Lecture	References (Text Book and reference book Page No ___ to ___)
1	<b>Chapter1:</b> Introduction to applications of Computer Graphics & Multimedia	Chalk & talk	TB1: 2
2	Computer graphics in CAD	PPT	TB1: 4,5
3	Presentation Graphics	Chalk & talk	TB1: 11,12
4	Computer Art & Entertainment	Chalk & talk	TB1: 13 to 18
5	Education & Training, Visualization	Chalk & talk	TB1: 21 to 25
6	Image Processing & Graphic User Interface	Chalk & talk	TB1: 32 to 34
7	Concept of Multimedia	Chalk & talk	TB2: 5,6
8	Revision of Chapter1	Questionaries	
6	<b>Chapter2:</b> Introduction to Overview of Graphics System	PPT	TB1: 35
7	Graphics System	Chalk & talk	TB1: 36,37
8	Raster Scan Display & Random Scan Display	Chalk & talk	TB1: 40,41
9	Graphics Input Devices	Chalk & talk	TB1: 60 to 70
10	Graphics Software	PPT	TB1: 75
11	Revision of Chapter 2	Questionaries	
16	<b>Chapter3:</b> Introduction to Graphics Output primitive	Chalk & talk	TB1: 83
17	Points & Lines	Chalk & talk	TB1: 84
18	DDA Line Drawing Algorithm	Chalk & talk	TB1: 86, 87
19	Bresenham's Line drawing Algorithm	Chalk & talk	TB1: 88
20	Filled Area Primitives	Chalk & talk	TB1: 117
21	Boundary fill algorithm, Flood fill algorithm	Chalk & talk	TB1: 127 to 130
22	Revision of Chapter 3	Questionaries	
23	Revision of Chapter1 to 3	Quiz	

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24	<b>Chapter4:</b> Two Dimensional Geometric Transformations	PPT	TB1: 184
25	Translation	Chalk & talk	TB1: 184
26	Rotation	Chalk & talk	TB1: 184
27	Scaling	Chalk & talk	TB1: 184
28	Reflection	Chalk & talk	TB1:201
29	Shear	Chalk & talk	TB1:203
30	Matrix representation and Homogenous coordinate system	Chalk & talk	TB1:188
31	Composite transformation	Chalk & talk	TB1:191 to 194
32	Revision of Chapter 4	Questionaries	
33	<b>Chapter5:</b> Two-Dimensional Viewing	Chalk & talk	TB1: 216
34	Viewing pipeline	Chalk & talk	TB1: 217
35	Viewing coordinate reference frame	Chalk & talk	TB1: 219
36	Window to view port coordinate transformation	Chalk & talk	TB1: 220
37	Line clipping concept	Chalk & talk	TB1: 225,226
38	Polygon clipping concept	PPT	TB1: 237, 238
39	Revision of Chapter 5	Questionaries	
40	<b>Chapter6:</b> Three-Dimensional Object Representations	Chalk & talk	TB1: 304
41	Polygon surface & Table	PPT	TB1:305, 306
42	Plane equation	Chalk & talk	TB1:307,308
43	Polygon mesh	Chalk & talk	TB1:309
44	Quadric surfaces	Chalk & talk	TB1: 310
45	Sphere, Ellipsoid	PPT	TB1: 311
46	Spline representation	Chalk & talk	TB1: 315
47	Bezier curves & Surfaces	Chalk & talk	TB1: 327 to 329
48	B-Spline curves & surfaces.	Chalk & talk	TB1: 334, 335
49	Revision of Chapter 6	Questionaries	
50	<b>Chapter7:</b> Three Dimensional Geometric	Chalk	TB1: 407



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	& Modeling Transformations	& talk	
51	Translation, Rotation, Scaling, Reflection, Shear	PPT	TB1: 408 to 423
52	Composite transformation	Chalk & talk	TB1: 423
53	Modeling & Coordinate transformation.	Chalk & talk	TB1: 426 to 428
54	Revision of Chapter 7	Questionaries	
55	<b>Chapter8:</b> Three-Dimensional Viewing	Chalk & talk	TB1: 431
56	Viewing pipeline	Chalk & talk	TB1: 432
57	Viewing coordinates	Chalk & talk	TB1: 433
58	Parallel projection & Perspective projection	Chalk & talk	TB1: 438 to 443
59	Concept of 3D clipping.	PPT	TB1: 456 to 460
60	Revision of Chapter 8	Questionaries	
61	<b>Chapter 9:</b> Illumination Model & Surface Rendering Methods	Chalk & talk	TB1: 494
62	Different light sources used in 3D Modeling	Chalk & talk	TB1: 496
63	Basic Illumination model	PPT	TB1: 497
64	Ambient light	Chalk & talk	TB1: 497
65	Diffuse reflection & Specular reflection	Chalk & talk	TB1: 497
66	Revision of Chapter 9	Questionaries	
67	<b>Chapter 10:</b> Introduction to Digital Audio	PPT	TB2: 66
68	Basics of Acoustics, Psychoacoustics	PPT	TB2: 66
69	Musical sound and noise, elementary sound system	Chalk & talk	TB2: 66 to 68
70	Microphones, Amplifiers, digital audio formats	Chalk & talk	TB2: 68 to 71
71	Audio compression (LPC, Sub Band Encoding)	Chalk & talk	TB2: 72 to 75
72	Revision of Chapter 10	Questionaries	
73	<b>Chapter 11:</b> Introduction to Digital Image	PPT	TB2: 75
74	Vector and raster Graphics	Chalk & talk	TB2: 75,76
75	Digital representation of image, colour, 16-bit, 24-bit colour depth	Chalk & talk	TB2: 76,77

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76	Colour Characteristics-Hue, saturation, Luminance & Colour Palette	Chalk & talk	TB2: 77
77	Image formats-JPEG, BMP, TIFF, GIFF & Image evaluation	Chalk & talk	TB2: 77 to 82
78	Layers & Filters	Chalk & talk	TB2: 82 to 84
79	Image manipulation-scaling, cropping, rotation	Chalk & talk	TB2: 84 to 85
80	Revision of Chapter 11	Questionaries	
81	<b>Chapter 12: Introduction to Video</b>	PPT	TB2: 86
82	Video in Multimedia	PPT	TB2: 86
83	Basics of Motion-Video & Sources of Motion-Video	Chalk & talk	TB2: 86,87
84	Video formats, lines, frames, fields	Chalk & talk	TB2: 87,88
85	TV Broadcast standards-PAL, NTSC, SECAM	Chalk & talk	TB2: 88, 89
86	MPEG Compression	Chalk & talk	TB2: 89
87	Revision of Chapter 12	Questionaries	
88	Problems and revision	Questionaries & Quiz	

<i>Sl. No.</i>	<i>Name of Authors</i>	<i>Title of the Book</i>	<i>Name of the Publisher</i>
TB1	Donald Hearn, M.Pauline Baker	Computer Graphics	PHI
TB2	Buford	Multimedia Systems	Pearson
TB3	Jose Lozano	Multimedia: Sound and Video	PHI
TB4	S.Pandey, M.Pandey	Multimedia Systems, Tech. & Communications	Katson

SUBJECT FACULTY

H.O.D

DEAN (ACADEMIC)

PRINCIPAL

# JES, JHARSUGUDA

Name	<b><u>MRS. BARSHARANI</u></b> <b><u>PATEL</u></b>	Total Hrs planned:60 Total Hrs per week:04
Designation	PTGF	Pre requisite
Subject: Code/Name	<b>Th.2</b>	<b>Internet and Web Technology</b>
<b>Semester/Programme / Department</b>	<b>6<sup>th</sup> SEMESTER/Diploma/Information Technology</b>	
<b>Course Objective</b>	<ul style="list-style-type: none"><li>• Internet is the buzz word in today's society.</li><li>• It is a vast pool of information.</li><li>• Without the knowledge of internet we are in total darkness.</li><li>• This paper deals with TCP/IP which is the backbone of internet.</li><li>• Web pages are used to project the profile on an organization, product or person etc.</li><li>• This paper also deals with the design aspect of Web Page.</li></ul>	

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Sl.No	Detail Description of Topics/Subtopics	Mode of Lecture
1.	<b>Internet fundamental</b>	
1.1	Motivation for internet working.	Chalk & talk
1.2	Internet architecture board.	Chalk & talk
1.3	Internet protocol and standardization.	Chalk & talk
1.4	Role of ISP and factors of choosing an ISP.	Chalk & talk
1.5	Internet service providers in india.	Chalk & talk
1.6	Types of connectivity such as dial up, leased,	Chalk & talk
	VSAT etc.	Chalk & talk
1.7	Properties of internet.	Chalk & talk
1.8	Internet architecture.	Chalk & talk
1.9	Interconnection through IP router.	Chalk & talk
1.10	All networks are equal.	Chalk & talk
1.11	Internet address.	Chalk & talk
1.12	Original cassfull addressing scheme	Chalk & talk
1.13	Adress specify network connections	Chalk & talk
1.14	Dotted decimal notation	Chalk & talk
1.15	Internet addressing authority	Chalk & talk

<b>2</b>	<b>TCP / IP</b>	
2.1	TCP / IP internet layering model	Chalk & talk
2.2	Reliable stream transport service Need for stream delivery	Chalk & talk
2.3	Properties of reliable delivery service	Chalk & talk
2.4	Providing reliability	Chalk & talk
2.5	Idea behind slide window	Chalk & talk
2.6	Port connection and end points, segments, streams sequence numbers	Chalk & talk
2.7	TCP segment format	Chalk & talk
2.8	TCP header	Chalk & talk
2.9	TCP checksum	Chalk & talk
2.10	Acknowledgement	Chalk & talk
2.11	Timeout and retransmission	Chalk & talk
2.12	Respond to conjunction	Chalk & talk
2.13	Establishment of a TCP connection	Chalk & talk
2.14	Source and destination address	Chalk & talk
2.15	Protocol number	Chalk & talk
2.16	Checksum	Chalk & talk
2.17	Closing TCP connection	Chalk & talk
2.18	TCP connection reset	Chalk & talk
	Revision of Chapter 2	
<b>3</b>	<b>INTERNET PROTOCOL</b>	
3.1	Connectionless data gram delivery	Chalk & talk
3.2	Concept of unreliable delivery	Chalk & talk
3.3	Connectionless delivery system	Chalk & talk
3.4	Propose of internet protocol	Chalk & talk
3.5	IP header	Chalk & talk
3.6	Source and destination address	Chalk & talk
3.7	Protocol number	Chalk & talk
3.8	Checksum	Chalk & talk
3.9	Rooting in an internet	Chalk & talk
3.10	Direct and indirect delivery	Chalk & talk
3.11	Table driven IP root	Chalk & talk
3.12	Default root	Chalk & talk
3.13	Host specific roots	Chalk & talk
3.14	Rooting with IP address	Chalk & talk
	Revision of Chapter 3	
<b>4</b>	<b>SUBNET ADDRESS EXTENSION</b>	
4.1	Introduction to subnet address extension	Chalk & talk
4.2	Minimizing network number	Chalk & talk
4.3	Transparent routers	Chalk & talk
4.4	Subnet addressing	Chalk & talk
4.5	Flexibility in subnet address assignment	Chalk & talk

4.6	Implementation of subnet with mask	Chalk & talk
4.7	Subnet mask representation	Chalk & talk
4.8	Routing in the presence of subnet	Chalk & talk
	Revision of Chapter 4	
<b>5</b>	<b>UDP</b>	
5.1	Introduction to UDP	Chalk & talk
5.2	Identifying the ultimate destination	Chalk & talk
5.3	Format of UDP message	Chalk & talk
	Revision of Chapter 5	
<b>6</b>	<b>DOMAIN NAMES SYSTEM</b>	
6.1	Hierarchical names	Chalk & talk
6.2.1	Subnet authority	Chalk & talk
6.2.1	Internet domain names	Chalk & talk
6.2.	Mapping of domain name to address	Chalk & talk
6.2.4	Domain name resolution	Chalk & talk
6.2.5	Efficient translation	Chalk & talk
6.2.6	Abbreviation of domain name	Chalk & talk
	Revision of Chapter 6	
<b>7</b>	<b>INTERNET APPLICATIONS &amp; SERVICES</b>	
7.1	E-Mail network	Chalk & talk
7.2	E-Mail protocols	Chalk & talk
7.3	Format of an e-mail message	Chalk & talk
7.4	E-Mail routing	Chalk & talk
7.5	E-Mail clients, POP3, IMAP	Chalk & talk
7.6	Public domain software	Chalk & talk
7.7	Types of FTP servers	Chalk & talk
7.8	FTP clients	Chalk & talk
7.9	Telnet protocol	Chalk & talk
7.10	Server domain	Chalk & talk
7.11	Clients	Chalk & talk
7.12	IRC network & servers	Chalk & talk
7.13	Channels	Chalk & talk
7.14	World wide web	Chalk & talk
7.15	Browser	Chalk & talk
	Revision of Chapter 7	
<b>8</b>	<b>HTML &amp; INTERACTIVE TOOLS</b>	
8.1	Document overview explain header elements	Chalk & talk
8.2	Section heading	Chalk & talk
8.3	Block oriented elements discuss list	Chalk & talk
8.4	Inline elements	Chalk & talk
8.5	Visual markup	Chalk & talk
8.6	Hypertext links	Chalk & talk
8.7	Uniform resource locator discuss imagers	Chalk & talk
8.8	Tables	Chalk & talk
8.9	Special characters	Chalk & talk

8.10	CGI ( common gateway interface ) explain active X	Chalk & talk
8.11	VB script	Chalk & talk
8.12	Java script	Chalk & talk
8.13	XML application	Chalk & talk
8.14	XML rules	Chalk & talk
8.15	Displaying XML documents	Chalk & talk
8.16	Parts of XML documents	Chalk & talk
8.17	Concepts of DTD	Chalk & talk
8.18	Entity definition & classification concepts of templates & Its use filtering & sorting.	Chalk & talk

Revision of Chapter 8		
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<b>BOOKS :-</b>		
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1	Internet working with TCP / IP Vol-1 ; Principles, Protocols & Architecture By Douglas E. Corner - PHI
2	HTML : The definitive guide – By Chuck Musciano & Kennedy
3	Internet working with TCP?IP Vol II : Design, implementation & internals By Douglas E. Corner & David L. Stevens - PHI
4	Internet and web page design By Sisodia : BPB publication
5	Web technologies By U.K Roy, Oxford Univ. Press

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**LESSON PLAN**

**JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA**

Name of the Faculty : SUNIL KUMAR PAL	Total Hrs planned:60
	Total Hrs per week: 04
Course No: HMT 601	Course Name: ENTREPRENEURSHIP & MANAGEMENT
Programme: Diploma	Branch: Electronics & Telecommunication
Year/ Semester :VI	Section:

Sl. No	Period	Time (min)	Unit	Topic to be Covered	Teaching Method
1.	1.	55	1	Introduction	Chalk & duster
2.	2.	55	1	Meaning and features and concept of business	Chalk & duster
3.	3.	55	1	Different forms of business organizations with features	Chalk & duster
4.	4.	55	1	-do-	Chalk & duster
5	5	55	1	Meaning, definitions and importance of management	Chalk & duster
6	6	55	1	Difference between management and Administration	Audio -visual
7	7	55	1	Function of management- planning, organizing, staffing, directing,	Chalk & duster
8	8	55	1	-do-	Chalk & duster
9	9	55	1	coordination and controlling	Chalk & duster
10	10	55	1	Principle of scientific management	Chalk & duster
11.	11.	55	1	-do-	Chalk & duster
12.	12.	55	1	-do-	Chalk & duster
13.	13.	55	2	Meaning and need of entrepreneurship	Chalk & duster
14.	14.	55	2	Qualities of an entrepreneur	Chalk & duster
15	15	55	2	Relevance of entrepreneurship of socio-economic gain	Chalk & duster
16	16	55	2	-do-	Chalk & duster
17	17	55	2	Micro, small and medium enterprises.	Audio -visual
18	18	55	2	-do-	Chalk & duster
19	19	55	2	Project Report- PPR & DPR	Audio -visual
20	20	55	2	-do-	Chalk & duster
21.	21.	55	2	Incentives available to MSME as per the latest IPR	Chalk & duster
22.	22.	55	2	Role of DIC, OSFC,OSIC	Chalk & duster
23.	23.	55	2	IDCO, SIDBI,IPICOL and commercial banks in the context of MSME	Chalk & duster
24.	24.	55	2	-do-	Chalk & duster
25	25	55	3	Financial accounting: Double entry system of book-keeping and types of accounts	Chalk & duster
26	26	55	3	-do-	Chalk & duster
27	27	55	3	Journal, ledger	Audio -visual
28	28	55	3	-do-	Chalk & duster
29	29	55	3	Cashbook( different types), Trial balance	Chalk & duster
30	30	55	3	-do-	Chalk & duster
31.	31.	55	3	Components of final accounts- Trading A/C, profit & loss A/C and balance sheet	Audio -visual
32.	32.	55	3	-do-	Chalk & duster
33.	33.	55	3	-do-	Chalk & duster
34	34	55	3	Elements of cost and preparation of cost sheet	Audio -visual
35	35	55	3	Break-even analysis	Chalk & duster

36	36	55	3	-do-	Chalk & duster
37	37	55	4	Financial management: meaning and importance	Chalk & duster
38	38	55	4	Finance functions	Chalk & duster
39	39	55	4	Types of capitals- Fixed & working capital	Chalk & duster
40	40	55	4	Components of working capital, working capital cycle.	Chalk & duster
41	41	55	5	Inventory Control: Importance & Techniques	Chalk & duster
42	42	55	5	Purchase management-Principles & Procedures	Chalk & duster
43	43	55	5	-do-	Chalk & duster
44	44	55	5	Important Store Records (Bin Card, Stores Ledger& GRN)	Audio -visual
45	45	55	5	-do-	Audio -visual
46	46	55	6	Production & Productivity	Chalk & duster
47	47	55	6	-do-	Chalk & duster
48	48	55	6	Production , Planning & Control-(meaning & steps)	Audio -visual
49	49	55	6	-do-	Audio -visual
50	50	55	7	Sales & Marketing Management-Meaning & Importance	Chalk & duster
51	51	55	7	Selling Methods	Chalk & duster
52	52	55	7	Product Policy-(Branding, Packaging, Labeling)	Chalk & duster
53	53	55	7	.-do-	Chalk & duster
54	54	55	7	Product-mix, Pricing methods and Sales Promotion including its techniques	Chalk & duster
55	55	55	7	-do-	Chalk & duster
56	56	55	7	Advertising & its media	Audio -visual
57	57	55	7	-do-	Chalk & duster
58	58	55	8	Need & Importance	Chalk & duster
59	59	55	8	Recruitment & its sources	Chalk & duster
60	60	55	8	-do-	Chalk & duster
61	61	55	8	Selection-Methods	Chalk & duster
62	62	55	8	Training-Need, & Methods	Audio -visual
63	63	55	8	Need of Performance Appraisal	Chalk & duster
64	64	55	9	Meaning & Symptoms of Sickness	Chalk & duster
65	65	55	9	Causes of Industrial Sickness	Chalk & duster
66	66	55	9	-do-	Chalk & duster
67	67	55	9	Remedial measures of Sickness	Chalk & duster
68	68	55	10	Major Provisions of Factories Act relating to Health, Welfare, Safety, Accidents, Hours of Work, employment of Women	Audio -visual
69	69	55	10	-do-	Chalk & duster
70	70	55	10	-do-	Chalk & duster
71	71	55	10	Duties and Power of Factory Inspector	Chalk & duster
72	72	55	10	-do-	Chalk & duster
73	73	55	10	Major Provisions of Employee's Compensation Act.	Chalk & duster
74	74	55	10	Revision	Chalk & duster
75	75	55	10	Previous year questions discussion	Chalk & duster

# JES, JHARSUGUDA

## Lesson Plan

Name	<b>SABYASACHI SARANGI</b>	Total Hrs planned:60 Total Hrs per week: 04
Designation	PTGF	Pre requisite :
Subject: Code/Name	ITT-601	Mobile Computing
<b>Semester/Programme/ Department</b>	6 <sup>th</sup> Sem / Diploma/ Information Technology	
<b>Course Objective</b>	<ol style="list-style-type: none"><li>1. To understand basics of Wireless networks &amp; Mobile Computing.</li><li>2. To be able to Mobile Development Frameworks</li><li>3. To learn about Wireless Transmission, Wireless LANs</li><li>4. To understand various Mobile IP, Wireless Telecomm Networks, Messaging Services.</li></ol>	

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Sl.No	Detail Description of Topics/Subtopics	Mode of Lecture
1	<b>Chapter1: Introduction to Wireless networks &amp; Mobile Computing</b>	Chalk & talk
2	Networks	Chalk & talk
3	Wireless Networks	Chalk & talk
4	Mobile Computing	PPT
5	Mobile Computing Characteristics	PPT
6	Application of Mobile Computing	NPTEL VIDEO
7	Revision of Chapter 1	Questionnaires & Class Test
8	<b>Chapter2: Introduction to Mobile Development Frameworks</b>	Chalk & talk
9	C/S architecture	NPTEL VIDEO
10	n-tier architecture	PPT
11	n-tier architecture and www	NPTEL VIDEO
12	Peer-to Peer architecture	Chalk & talk
13	Mobile agent architecture	NPTEL VIDEO
14	Revision of Chapter 2	Questionnaires & Class Test
15	<b>Chapter 3: Wireless Transmission</b>	Chalk & talk
16	Introduction	Chalk & talk
17	Signals	PPT
18	Period, Frequency and Bandwidth.	Chalk & talk
19	Antennas	Chalk & talk
20	Signal Propagation	Chalk & talk
21	Multiplexing	NPTEL VIDEO
22	Modulation	Chalk & talk
23	Spread Spectrum	NPTEL VIDEO
24	Cellular System	NPTEL VIDEO
25	Revision of Chapter 3	Questionnaires & Class Test
26	<b>Chapter 4: Medium Access Control</b>	Chalk & talk
27	Introduction	PPT
28	Hidden/ Exposed Terminals	Chalk & talk
29	The basic Access Method	Chalk & talk
30	Near / Far Terminals	NPTEL VIDEO
31	SDMA, FDMA, TDMA, CDMA	NPTEL VIDEO
32	Revision of Chapter 4	Questionnaires & Class Test

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33	<b>Chapter 5: Wireless LANs</b>	Chalk & talk
34	Wireless LAN and communication	PPT
35	Infrared	Chalk & talk
36	Radio Frequency	NPTEL VIDEO
37	IR Advantages and Disadvantages	Chalk & talk
38	RF Advantages and Disadvantages	Chalk & talk
39	Wireless Network Architecture Logical	Chalk & talk
40	Types of WLAN	Chalk & talk
41	IEEE 802.11	Chalk & talk
42	MAC layer	Chalk & talk
43	Security	NPTEL VIDEO
44	Synchronization	NPTEL VIDEO
45	Power Management	NPTEL VIDEO
46	Roaming	NPTEL VIDEO
47	Bluetooth Overview	NPTEL VIDEO
48	Revision of Chapter 5	Questionnaires & Class Test
49	<b>Chapter 6 : Ubiquitous Wireless Communication</b>	Chalk & talk
50	Introduction	Chalk & talk
51	Scenario of Mobile Communication	NPTEL VIDEO
52	Mobile Communication Generations 1G to 3G	Chalk & talk
53	3 <sup>rd</sup> Generation Mobile Communication Network	PPT
54	Universal Mobile telecommunication System (UMTS)	Chalk & talk
55	Revision of Chapter 6	Questionnaires & Class Test
56	<b>Chapter 7 : Mobile IP</b>	Chalk & talk
57	Overview	Chalk & talk
58	Working with mobile IP	NPTEL VIDEO
59	Mobile IP Entities	PPT
60	Mobility Agents	NPTEL VIDEO
61	Components of Mobile IP	NPTEL VIDEO
62	Mobile IPv6 Features	NPTEL VIDEO
63	Mobile IPv6 Address Types	NPTEL VIDEO
64	Mobile IPv6 Address Scope	NPTEL VIDEO
65	Revision of Chapter 7	Questionnaires & Class Test

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66	<b>Chapter 8 : Mobile Computing</b>	Chalk & talk
67	WWW architecture for Mobile computing	Chalk & talk
68	Need of WAP	Chalk & talk
69	Benefits of WAP	Chalk & talk
70	Examples of WAP	Chalk & talk
71	WAP- Architecture	Chalk & talk
72	WAP protocols	Chalk & talk
73	WML	Chalk & talk
74	WAP Push architecture	Chalk & talk
75	Push-Pull based data acquisition	Chalk & talk
76	I-mode	Chalk & talk
77	WAP 2.x	Chalk & talk
78	Revision of Chapter 8	Questionnaires & Class Test
79	<b>Chapter 9: Wireless Telecomm Networks</b>	Chalk & talk
80	GSM	Chalk & talk
81	GPRS	Chalk & talk
82	IS-95	Chalk & talk
83	CDMA-2000	Chalk & talk
84	W-CDMA	NPTEL VIDEO
85	Wireless Sensor Networks	NPTEL VIDEO
86	Revision of Chapter 9	Questionnaires & Class Test
87	<b>Chapter 10: Messaging Services</b>	Chalk & talk
89	Short Message Services (SMS)	Chalk & talk
90	Multimedia Message Services (MMS)	NPTEL VIDEO
91	Multimedia transmission over wireless	NPTEL VIDEO
92	Revision of Chapter 10	Questionnaires & Class Test

## **BOOK**

1. Mobile Computing ; By : Dr. N.NJani, Kamaljit I. Lakhtaria, Dr. Ashish N. Jani & Nita Kanabar (S.Chand & Company Ltd.)

SUBJECT FACULTY

H.O.D

ACADEMIC COORDINATOR

PRINCIPAL