

Bhoj Reddy Engineering College for Women: Hyderabad

Department of Computer Science and Engineering

Lesson plan of faculty member for the academic year 2017–18

Class: III B Tech

Branch-Section: ECE-A

Semester: I

Subject: Computer Organization & Operating System

Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
UNIT-I: Basic Structure of Computers		
1	Computer types, Functional units	12 July 2017
2	Basic Operational Concepts ,Bus Structure	13 July 2017
3	Software, Multiprocessors & Multi computers	15 July 2017
4	Tutorial(G2/G1/G3) - Performance	13,14,15 July 2017
5	Fixed point representation, Floating point representation	18 July 2017
6	Register Transfer Language, Register Transfer Bus and Memory Transfers	19 July 2017
7	Arithmetic Micro-Operations	22 July 2017
8	Tutorial(G2/G1/G3) – Arithmetic Micro- Operations	18,21,22 July 2017
9	Logic Micro-operations	24 July 2017
10	Shift micro Operations, Arithmetic logic shift unit	25 July 2017
11	Instruction codes	26 July 2017
12	Memory Reference instructions	29 July 2017
13	Tutorial(G1/G2/G3) – Instruction Cycle	25,26,29 July 2017
14	I/O instruction, Stack organization	1 August 2017
15	Instruction formats, Addressing modes	2 August 2017
16	Data transfer and manipulation	5 August 2017
17	Tutorial(G2/G1/G3) - Program Control, RISC	1,4,5 August 2017
UNIT-II: Micro Programmed Control		
18	Control Memory, Address Sequencing	7 August 2017
19	Design of Control Unit, Hard wired control	8 August 2017
20	The Memory System: Basic concepts of semiconductor RAM memories	9 August 2017
21	Read Only Memories	12 August 2017
22	Tutorial(G2/G1/G3) - Micro programmed control	8,11,12 August 2017
23	Cache Memories	16 August 2017
24	Performance Considerations	19 August 2017
25	Tutorial(G1/G3) - Micro program examples	18,19 August 2017
26	Virtual memories, Secondary storage	21 August 2017
27	Introduction to RAID	22 August 2017
UNIT-III: Input-Output Organization		
28	Input-Output Organization	23 August 2017
29	Peripheral Devices	26 August 2017
30	Tutorial(G1/G3) - Secondary storage	22,26 August 2017
31	Input-Output interface	28 August 2017
32	Tutorial(G2) – I/O Interface	29 August 2017
33	Asynchronous data transfer modes	30 August 2017
34	Priority interrupt	1 September 2017
35	Direct memory access	4 September 2017
36	Input-Output processor	5 September 2017
37	Interconnect PCI Bus	9 September 2017
38	Tutorial(G2/G3) - DMA	5,9 September 2017
39	Introduction to Peripheral Components	11 September 2017
40	Serial Communication	12 September 2017
41	Introduction to standard serial communication protocols	13 September 2017

42	USB	16 September 2017
43	Tutorial(G2/G1/G3) - IEEE 1394	12,15,16 September 2017
UNIT-IV: Operating System Overview		
44	Overview of Computer Operating Systems functions, Protection and Security	18 September 2017
45	Distributed Systems, Special Purpose Systems	19 September 2017
46	OS Structures Services	23 September 2017
47	Tutorial(G2/G1/G3) - System Calls	19,22,23 September 2017
48	System programs	3 October 2017
49	Memory Management Introduction	4 October 2017
50	Contiguous memory allocation	7 October 2017
51	Tutorial(G2/G1/G3) - Swapping	3,6,7 October 2017
52	Paging	9 October 2017
53	Structure of the page table	10 October 2017
54	Segmentation	11 October 2017
55	Virtual memory	14 October 2017
56	Tutorial(G2/G1/G3) - Demand paging	10,13,14 October 2017
57	Page Replacement Algorithms	16 October 2017
58	Deadlock detection and avoidance	17 October 2017
59	Recovery from Deadlock	21 October 2017
60	Tutorial(G2/G1/G3) – Bankers Algorithm	17,20,21 October 2017
UNIT-V: File System Interface		
61	Concept of a File, Access Methods	23 October 2017
62	Directory Structure, File System Mounting	24 October 2017
63	File sharing, Protection	25 October 2017
64	File System Implementation	28 October 2017
65	Tutorial(G2/G1/G3) - File System Structure	24,27,28 October 2017
66	Directory Implementation	30 October 2017
67	Allocation Methods	31 October 2017
68	Free Space Management	1 November 2017
69	Tutorial (G2,G1) - Revision	31 October, 3 November
70	Revision	6 November 2017
71	Revision	7 November 2017

Text books:

1. Computer Organization -Carl Hamacher, zvonks vranesic, safeazaky, 5th Edition,McGraw Hill
2. Computer System Architecture – M.Moris Mano,3rd Edition , Pearson
3. Operating System Concepts -Abraham Silberchartz,Peter B.Galvin,Greg Gagne,8th Edition, john Wiley

Name and signature of the faculty: K.V.Murali Krishna

Name and signature of Head of the Department: K.Usha Rani

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