

Bhoj Reddy Engineering College for Women: Hyderabad

Department of Information Technology

Lesson plan of faculty member for the academic year 2016–17

Class: II B Tech

Branch-Section: IT-B

Semester: II

Subject: Data Communications

Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
UNIT – I: Introduction to Data Communications and Networking & Signal, Noise, Modulation and Demodulation		
1	Introduction to Data Communications and Networking	9 DECEMBER 2016
2	Tutorial (G2, G1) Networking	9,10 DECEMBER 2016
3	Standards Organizations, Layered Network Architecture	13 DECEMBER 2016
4	Open System Interconnection	15 DECEMBER 2016
5	Data Communication Circuits, Serial and Parallel Data Transmission	16 DECEMBER 2016
6	Tutorial (G3, G2, G1) Open System Interconnection	14,16,17 DECEMBER 2016
7	DC circuit arrangements, Data Communications Networks, Alternate Protocol Suites	19 DECEMBER 2016
8	Signals, Noise, Modulation, Demodulation, Signal Analysis	20 DECEMBER 2016
9	Electrical Noise and Signal to Noise Ratio	22 DECEMBER 2016
10	Analog Modulation Systems	23 DECEMBER 2016
11	Tutorial (G3, G2, G1) Data Communications Networks	21,23,24 DECEMBER 2016
12	Information Capacity Bits, Bit Rate, Baud, and M-ary Encoding	26 DECEMBER 2016
13	Digital Modulation	27 DECEMBER 2016
UNIT-II: Multiplexers & Transmission Media		
14	Advantages of multiplexers, Frequency division multiplexing	29 DECEMBER 2016
15	Time division multiplexing, Statistical Time division multiplexing	30 DECEMBER 2016
16	Tutorial (G3, G2, G1) Frequency division multiplexing	28,30,31 DECEMBER 2016
17	Concentrators	2 JANUARY 2017
18	Transmission Media: introduction	3 JANUARY 2017
19	Communication channel- channel bands	5 JANUARY 2017
20	channel Services	6 JANUARY 2017
21	Tutorial (G3, G2, G1) channel Services	4,6,7 JANUARY 2017
22	channel Standard interfaces, Open Wirelines	9 JANUARY 2017
23	Twisted pair cables, co-axial cables	10 JANUARY 2017
24	Optical fiber communication advantages and disadvantages	12 JANUARY 2017
25	wireless communication- satellite and cellular radio communication	13 JANUARY 2017
26	Tutorial (G3, G2) Twisted pair cables, co-axial cables	11,13 JANUARY 2017
27	Typical Broadband LAN's.	16 JANUARY 2017
28	Revision	17 JANUARY 2017
UNIT-III: Telephone Instruments and Signals & The Telephone Circuit		
29	The Subscriber Loop, Standard Telephone Set.	19 JANUARY 2017
30	Basic telephone call procedures	20 JANUARY 2017
31	Tutorial (G3, G2, G1) Basic telephone call procedures	18,20,21 JANUARY 2017
32	call progress Tones and Signals	23 JANUARY 2017
33	Cordless Telephones, caller I	24 JANUARY 2017
34	Electronic Telephones, Paging Systems	27 JANUARY 2017

35	Tutorial (G3, G2) call progress Tones and Signals	25,27JANUARY 2017
36	Local Subscriber Loop	20 FEBRUARY 2017
37	Telephone Message channel noise and noise weighting	21 FEBRUARY 2017
38	unit of powers Measurement	23 FEBRUARY 2017
39	Tutorial (G3, G1) unit of powers Measurement	22,25 FEBRUARY 2017
40	Transmission Parameters and Private Line Circuits	27 FEBRUARY 2017
41	Voice -Frequency Circuit Arrangements	28 FEBRUARY 2017
42	Crosstalk.	2 MARCH 2017
UNIT-IV: Cellular Telephone System & Data Communications Codes, Error Control, Data Formats		
43	First Generation Analog Cellular Telephone	3 MARCH 2017
44	Tutorial (G3, G2, G1) Crosstalk.	29 FEBRUARY, 1,3 MARCH 2017
45	Personal Communication system	6 MARCH 2017
46	Second Generation Cellular Telephone system	7 MARCH 2017
47	N-AMPS, Digital Cellular Telephone	9 MARCH 2017
48	Interim Standard, North American Cellular and PCS summary	10 MARCH 2017
49	Tutorial (G3, G2, G1) Personal Communication system	8,10,11 MARCH 2017
50	Global System for Mobile communications	13 MARCH 2017
51	Personal Communication Satellite System	14 MARCH 2017
52	Data Communications character codes, Bar Codes	16 MARCH 2017
53	Error Control, Error Detection, Error Correction	17 MARCH 2017
54	Tutorial (G3, G2, G1) Global System for Mobile communications	15,17,18 MARCH 2017
55	Character Synchronization	20 MARCH 2017
56	Revision	21 MARCH 2017
UNIT-V: Data Communication Equipment		
57	Digital Services Unit, Channel Service Unit	23 MARCH 2017
58	voice Band Data Communication Modems	24 MARCH 2017
59	Tutorial (G3, G2, G1) Digital Services Unit	22,24,25 MARCH 2017
60	Bell Systems	27 MARCH 2017
61	Compatible Voice Band Modems	28 MARCH 2017
62	Voice Band Modern Block Diagram	30 MARCH 2017
63	voice band modem classifications	31 MARCH 2017
64	Tutorial (G2, G1) Compatible Voice Band Modems	31 MARCH, 1 APRIL 2017
65	Asynchronous voice band modems	3 APRIL 2017
66	Synchronous voice band modems	4 APRIL 2017
67	Modem Synchronization	6 APRIL 2017
68	ITU_T voice band modem specifications	7 APRIL 2017
69	Tutorial (G2, G1) Modem Synchronization	7,8 APRIL 2017
70	56k modems, Modem control	10 APRIL 2017
71	The AT Command Set, Cable Modems	11 APRIL 2017
72	Probability of error and bit Error Rate, Revision	13 APRIL 2017

Text books:

1. Introduction to Data Communications and Networking, Wayne Tomasi, Pearson Education.
2. Data and Computer Communications, Gurudeep S. Hura, Mukesh Signal, CRC Press

Name and signature of the faculty: Mr D Venkatesh ----

Name and signature of Head of the Department: Mr Sandeep Kumar k ----