

Government Polytechnic, Sonipat
Computer Science and Engineering Department
Subject : - DATA COMMUNICATION
Semester : III
Lecturer : Harish Kumar Kaushik

Week No	Syllabus	Remarks
Week 1	Unit 1: Introduction Basic of Data Communication Data Communication- Components, Data representation, Data flow Networks- Distributed processing, Network criteria , Physical structures	Remedial Class o as and when required in each week
Week 2	Network Category- LAN, WAN, MAN	
Week 3	Revision of Unit 1 Unit 2: Data and Signals Analog and Digital data, Analog and digital signals, Periodic and Non Periodic signals, periodic analog signals	
Week 4	Digital Signals- Bit rate, Bit length, Digital signal as a composite analog signal, transmission of digital signals	
Week 5	Transmission Impairment- Attenuation, Distortion and noise Performance- bandwidth, throughput, latency, jitter	
Week 6	Revision of Unit 2 Unit 3: Digital and Analog Transmission Analog transmission- Digital to Analog Conversion- ASK, PSK, FSK	
Week 7	Analog to Analog Conversion- AM, PM,FM(No mathematical treatment) Digital transmission- Digital to digital conversion- coding and schemes	
Week 8	Analog to digital conversion- PCM and Delta Modulation (DM) Transmission modes- Serial and parallel transmission	
Week 9	Multiplexing – FDM,	
Week 10	WDM, TDM	
Week 11	Unit 5: Transmission media Guided media-Twisted pair cable, Co-axial cable, fibre optics cable	
Week 12	Unguided Media- radio wave, Microwave, Infrared	
Week 13	Unit 6:Error Detection and Correction Types of Errors, redundancy, detection v/s correction, Forward error correction v/s retransmission.	
Week 14	Error detection through Parity bit, block parity to detect double errors and correct single errors. General principles of error detection and correction using cyclic redundancy check	
Week 15	Revision	

Government Polytechnic, Sonapat

Lesson Plan

Name of the Faculty : Virender Singh

Department : CSE

Semester : 3rd

Subject : Programming in C

Lesson Plan Duration : 15 weeks (from July, 2018 to Dec., 2018)

Work load (Lecture / Practical) per week(in hours): Lectures - 04, Practicals - 06

Week	Theory		Practical	
	Lecture day	Topic (Including assignment / test)	Practical Day	Topic
1st	1st	Algorithm and Programming Development: Introduction	1st	Programming exercises on executing and editing a C program
	2nd	Steps in development of a program		
	3rd	Flow charts, Algorithm development	2nd	Programming exercises on executing and editing a C program
	4th	Programme Debugging		
2nd	5th	Algorithm and Flowchart writing for practical	3rd	Programming exercises on executing and editing a C program
	6th	Algorithm and Flowchart writing for practical		
	7th	Practice of error detection and corrections in examples.	4th	Programming exercises on executing and editing a C program
	8th	Program Structure : Introduction to structure of C program		
3rd	9th	Keywords, assign statements	5th	Programming exercises on executing and editing a C program
	10th	I/O statements: Print and Scan		
	11th	Constants, variables and data types	6th	Programming exercises on defining variables and assigning values to variables
	12th	Operators and Expressions		
4th	13th	Unformatted and Formatted IOS	7th	Programming exercises on arithmetic and relational operators
	14th	Data Type Casting		
	15th	Basic Program writing and practice	8th	Programming exercises on arithmetic expressions and their evaluation
	16th	Revision of Unit II		
5th	17th	Control Structures :Introduction and use	9th	Programming exercises on formatting input/output using printf and scanf and their
	18th	Decision making with IF – statement		
	19th	Practice of IF statement with examples	10th	Programming exercises using if statement, if – Else
	20th	IF – Else and Nested IF		
6th	21st	While and do-while, for loop	11th	Programming exercises on do – while, statement.
	22nd	Loop Practice and revision		
	23rd	Break. Continue statements	12th	Programming exercises on switch statement.
	24th	goto and switch statements		
7th	25th	Revision of Unit III	13th	Programming exercises on for – statement
	26th	Practice of Control structures using examples.		
	27th	Class Test of III	14th	Programming exercises on do – while, statement and for statement
	28th	Pointers :Introduction to pointers		
8th	29th	Address operator and pointers , Declaring and initializing pointers	15th	Simple programs using pointers
	30th	Single pointer		
	31st	Revision of Unit IV	16th	Simple programs using pointers
	32nd	Practice of Pointers using examples and		
9th	33rd	Functions: Introduction to functions Global and Local Variables	17th	Simple programs using functions
	34th	Function Declaration, Standard functions		
	35th	Parameters and Parameter Passing	18th	Simple programs using functions
	36th	Call - by value/reference		
10th	37th	Revision of functions and Parameter Passing	19th	Programs on one-dimensional array. Programs on two-dimensional array.
	38th	Arrays and Strings: Introduction to Arrays, Array Declaration, Length of array		
	39th	Single and Multidimensional Array, Arrays of characters	20th	Programs on one-dimensional array. Programs on two-dimensional array.
	40th	Revision of Arrays and functions.		
11th	41st .	Examples of programs and Practice of array and functions	21st	(i) Programs for putting two strings together. (ii) Programs for comparing two strings
	42nd	Introduction of Strings: String declaration and definition, String Related function i.e.		
	43rd	Passing an array to function	22nd	Programs on functions using array as parameters

Week	Lecture day	Topic (Including assignment / test)	Practical Day	Topic
	44th	Programming examples of array passing as argument to a function		
12th	45th	Revision of arrays and functions with examples	23rd	Programs on functions using array as parameters
	46th	Pointers to an array and strings		
	47th	Pointers to an array and strings detailed	24th	Programs on functions ,Strings and parameter passing by reference
	48th	Class Test of Pointers and Functions		
13th	49th	Structures and Unions : Introduction ,Declaration of structures	25th	Simple programs using structures
	50th	Accessing structure members		
	51st	Structure Initialization	26th	Simple programs using structures
	52nd	Pointer to a structures		
14th	53rd	Unions: Introduction	27th	Simple programs using union
	54th	Difference between Structures and unions		
	55th	Program examples of structures and unions	28th	Simple programs using union
	56th	Revision of Structure and unions		
15th	57th	Revision of Pointers	29th	Programming exercises on do – while, statement and for statement
	58th	Revision of Loops and Control Structures.		
	59th	Class Test of Loops, Pointers and Control Structures	30th	Programming exercises on do – while, statement and for statement
	60th	Revision of Structure and unions		