BCA 2ND YEAR   IV SEM

Subject name	Name of unit	Time Required to complete	Subject teacher	Information about subject	Session	Sem
Data Structure & File Organisation	Unit 1Introduction Arrays	6 Hours(8 Lectures)		Data structures and file organization refer to the methods of organizing the data in a database. They primarily deal with physical storage of data which assumes significance in retrieving, storing and reorganizing data in a database.	2018-19	IV
	Unit 2 Linked Lists Stack Queue	13 Hours(17 Lectures)				
	Unit 3 Trees Graphs Searching & Sorting	13 Hours(17 Lectures)				
	Unit 4 Introduction to Files & Concept of Records Direct File Organisation	6 Hours(8 Lectures)				
Information System Analysis & Design	Unit 1Definition of the system Role of a systems Analyst	7 Hours(9 Lectures)		System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.	2018-19	IV
	Unit 2 Feasibility studies Feasibility Analysis	10 Hours 30 min(14 Lectures)				
	Unit 3 Tools of SSAD System design	7 Hours 30 min(10 Lectures)				
	Unit 4Development methodologies Testing Case Studies	13 Hours(17 Lectures)				
Introduction	Unit 1	6 Hours(8		*Software Engineering is*	2018-19	IV

to Software Engineering	Introduction Software project planning	Lectures)		*a systematic approach to the design, development, operation, and maintenance of a software system.*		
	Unit 2 Cost Estimation Techniques Software Project Scheduling	7 Hours 30 min(10 Lectures)				
	Unit 3 Requirement analysis methods Design representations	13 Hours(17 Lectures)				
	Unit 4 Strategies Product assurance	12 Hours(15 Lectures)				
Object Oriented Programming using C++	Unit 1 Introduction Operators in c++	6 Hours(8 Lectures)		Object oriented programming aims to implement real world entities like inheritance, hiding, polymorphism etc in programming. The main aim of OOP is to bind together the data and the functions that operates on them so that no other part of code can access this data except that function	2018-19	IV
	Unit 2 Classes and Object Constructors and Destructors	7 Hours 30 min(10 Lectures)				
	Unit 3 Operator Overloading Inheritance , Pointers virtual functions and Polymorphism	9 Hours(12 Lectures)				
	Unit 4Managing Console I/O Operations and Working with files File Handling	7 Hours 30 min(10 Lectures)				

BCA 2ND YEAR   III SEM

Subject name	Name of unit	Time Required to complete	Subject teacher	Information about subject	Session	Sem
Introduction to Microprocessor	**Unit 1 Introduction to Microprocessors**	6 Hours(8 Lectures)		It is a programmable, multipurpose, clock - driven, register-based electronic device that reads binary instructions from a storage device called memory, accepts binary data as input and processes data according to those instructions and provides results as output.	2018-19	III
	Unit 2 8085 Microprocessor	6 Hours(8 Lectures)				
	Unit 3 Programming in 8085 Interrupts	12 Hours(16 Lectures)				
	Unit 4 I/O Interface Memory	13 Hours 30 min(18 Lectures)				
Numerical Methods & Algorithms	**Unit 1 Roots of non-linear equations Direct solution of linear equation**	7 hours 30 min(10 Lectures)		Numerical Analysis with Algorithms and Programming is the first comprehensive textbook to provide detailed coverage of numerical methods, their algorithms, and corresponding computer programs. It presents many techniques for the efficient numerical solution of problems in science and engineering.	2018-19	III
	Unit 2 Interpolation	6 Hours(8 Lectures)				
	Unit 3 Numerical Integration Numerical Differentiation	9 Hours(12 Lectures)				
	Unit 4 Numerical solution of Differential equation Curve Fitting B-Splines	15 Hours(20 Lectures)				

Computer Organisation & Architecture	**Unit 1 Computer Structures**	6 Hours(8 Lectures)		The architecture of a computer system can be considered as a catalogue of tools or attributes that are visible to the user such as instruction sets, number of bits used for data, addressing techniques, etc.	2018-19	III
	Unit 2 Internal Memory External Memory	16 Hours 30 min(22 Lectures)				
	Unit 3 Input/output	7 Hours 30 min(10 Lectures)				
	Unit 4 Advance Architecture	7 Hours 30 min(10 Lectures)				
File Structure & Database Management System	**Unit 1**	7 Hours 30 min(10 Lectures)		A database consist of a huge amount of data. The data is grouped within a table in RDBMS, and each table have related records. A user can see that the data is stored in form of tables, but in actual this huge amount of data is stored in physical memory in form of files.	2018-19	III
	Unit 2	9 Hours(12 Lectures)				
	Unit 3	9 Hours(12 Lectures)				
	Unit 4	12 Hours(16 Lectures)				