

Structure of Computer Science /Information Technology (IT)

Programme: B.Sc. with Computer Science as one of the Core Subjects.

Discipline: Computer Science

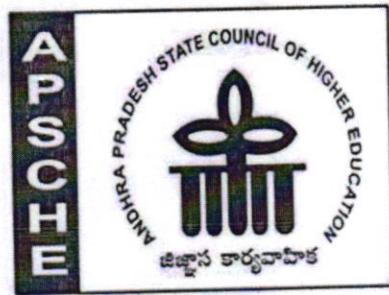
Year	Semester	Paper Code	Subject	Hrs. per Week	Credits	IA	ES	Total
First Year	I	C1	Problem Solving in C	4	3	25	75	100
	I	C1-P	Problem Solving in C Lab	2	2		50	50
	II	C2	Data Structures using C	4	3	25	75	100
	II	C2-P	Data Structures using C Lab	2	2		50	50
Second Year	III	C3	Database Management System	4	3	25	75	100
	III	C3-P	Database Management System Lab	2	2		50	50
	IV	C4	Object Oriented Programming using Java	4	3	25	75	100
	IV	C4-P	Object Oriented Programming using Java Lab	2	2		50	50
	IV	<u>C5</u>	Operating Systems	4	3	25	75	100
	IV	<u>C5-P</u>	Operating Systems Lab using C/Java	2	2		50	50

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1) *[Signature]*
Ch. Raju



12/2/21



ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION
(A Statutory body of the Government of Andhra Pradesh)

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**REVISED SYLLABUS OF B.Sc. (COMPUTER SCIENCE/ INFORMATION
TECHNOLOGY) UNDER CBCS FRAMEWORK WITH EFFECT FROM 2020-2021**

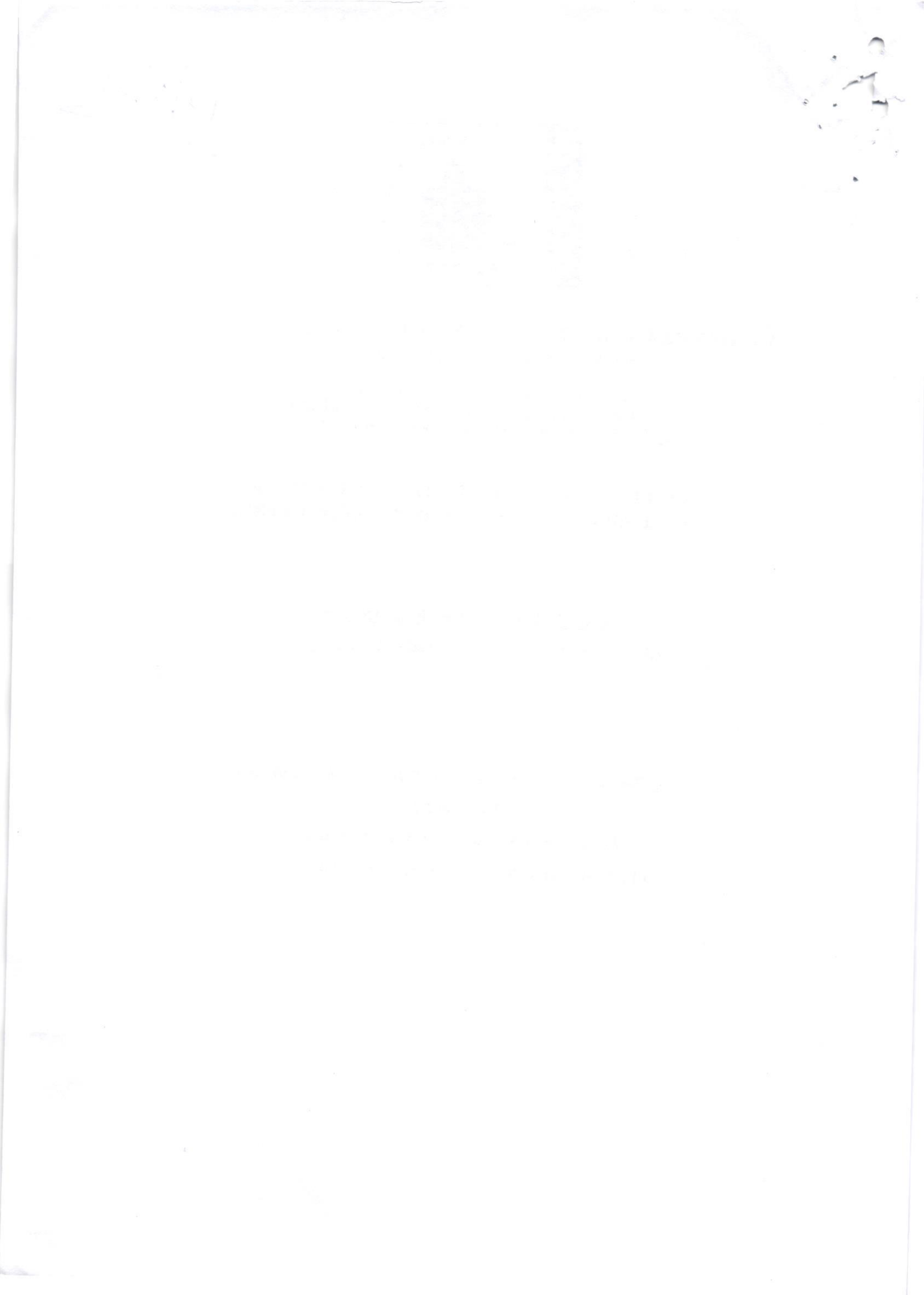
PROGRAMME: THREE-YEAR B.Sc.

(B.Sc. Computer Science/ Information Technology (IT))

*(With Learning Outcomes, Unit-wise Syllabus, References, Co-curricular Activities &
Model Q.P.)*

For Fifteen Courses of 1, 2, 3 & 4 Semesters)

(To be Implemented from 2020-21 Academic Year)



Andhra Pradesh State Council of Higher Education
B.Sc. Computer Science/Information Technology (IT) Syllabus under CBCS
W.e.f.2021-2021 Academic Year

Structure of Computer Science/Information Technology (IT)

Syllabus I YEAR 1 SEMESTER

Problem solving in C

UNIT I

General Fundamentals: Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations.

Introduction to Algorithms and Programming Languages: Algorithm - Key features of Algorithms, Flow Charts, and Programming Languages - Generations of Programming Languages

UNIT II

Introduction to C: Introduction - Structure of C Program - Compiling and Executing C Programs - Using Comments -Keywords - Identifiers - Basic Data Types in C - Variables - Constants - I/O Statements in C- Operators in C.

Decision Control and Looping Statements: Introduction to Decision Control Statements- Conditional Branching Statements - Iterative Statements - Nested Loops - Break and Continue Statement - Goto Statement.

UNIT III

Arrays: Introduction - Different types of arrays (1D, 2D, and 3D) - Operations on Arrays - one dimensional, two dimensional and multi dimensional arrays, character handling and

Strings: String operations, string character functions.

UNIT IV

Functions: Introduction - User defined and pre-defined functions, passing parameters, Scope of variables - Storage Classes - Recursive functions.

Structure, Union, and Enumerated Data Types: Introduction, Nested Structures, Arrays of Structures - Structures and Functions, Structures and pointers- enumerated data types.

UNIT V

Pointers: Understanding Computer Memory - Introduction to Pointers - Pointer Expressions and Pointer Arithmetic - Null Pointers -Pointer and Arrays - Dynamic Memory Allocation - Drawbacks of Pointers

Files: Introduction to files - Using Files in C -Reading Data from files-writing Data to files- Detecting the end of file -Error handling during file operations.

REFERENCE BOOKS

1. Introduction to C programming by REEMA THAREJA from OXFORD UNIVERSITY PRESS
2. E .Balagurusamy: —COMPUTING FUNDAMENTALS & C PROGRAMMING -Tata McGraw-Hill, Second Reprint 2008, ISBN 978-0-07-066909-3.
3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publ, 2002.

Adel. K. S. Ch...
12/12/2021

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