

**GOVT. HOLKAR AUTONOMOUS SCIENCE
COLLEGE INDORE
(CENTER FOR EXCELLENCE)**

2016-19 and onwards



Affiliated to Devi Ahilya Vishwavidyalaya, Indore

Syllabus for B.Sc.

Computer Science

(Faculty of Computer Science)

DEPARTMENT OF COMPUTER SCIENCE

Govt. Holkar Science College, Indore
Department of Computer Science
B.Sc. Computer Science

Session- 2016-2019

(Effective from July 2016 session for 2016-2019 batches onwards)

Marks Distributions

CLASS /SEMESTER	B. Sc.(CS)	CCE	MIN. MARKS	TERM END EXAM	MIN. MARKS	TOTAL 100%	MIN. MARKS
FIRST SEM.	CS-1101–Computer Organization	15	5	85	28	100	33
	CS-1101P- Practical on Computer Org. & MS Office	—	—	—	—	50	17
SECOND SEM.	CS-1201- Programming & Problem Solving through C.	15	5	85	28	100	33
	CS-1201P- Practical on C Language	—	—	—	—	50	17
THIRD SEM.	CS-2301-Data Structure using C Lang.	15	5	85	28	100	33
	CS-2301P-Practical on Data Structure	—	—	—	—	50	17
FOURTH SEM.	CS-2401- Data Base Management System	15	5	85	28	100	33
	CS-2401P-Practical on Data Base Management System	—	—	—	—	50	17
FIFTH SEM	CS-3501Object Oriented Programming using C++	15	5	85	28	100	33
	CS-3501P-Practical on C++	—	—	—	—	50	17
SIXTH SEM	CS-3601 Computer Networks	15	5	85	28	100	33
	CS-3601P-Practical on Web Technology	—	—	—	—	50	17

B.Sc. II Semester
Session 2016-2019

CS-1201- PROGRAMMING & PROBLEM SOLVING THROUGH C LANGUAGE

UNIT- I

Algorithm, Flowchart, Logic Development & Problem Solving.

Structure of C program, C declarations, keywords, identifiers, constants, Variables, Data types, type conversion, Types of operators and expressions, Working with scanf(), printf(), and other input & output functions in C.

UNIT II

Decision Statement – if-else statement, break, continue, goto, switch() case and nested if statement. **Loop Control Statements** – For loop, While loop , Do-while loop and nested loops.

UNIT III

Arrays – Definition, Initialization, characteristics, One, Two, Three and Multi-dimensional Arrays, Strings & Standard Functions.

Pointers – Introduction, Features, Declaration & Arithmetic operations on pointers. Pointers and Arrays, Array of pointers. Pointers to pointers, pointers and strings, Void pointers

UNIT IV

Functions – Declaration, Prototype, Types of functions, Call by value and reference, Function with operators. Function with decision statements, function with Loop statements. Function with Arrays and Pointers. Types of Storage Classes.

UNIT V

Files – Streams and file types, file operations and steps for file operations, File IO ,Write and Other file functions.

Command line arguments, Application of Command Line Arguments.

Structure and Union – Declaration, Initialization, structure within structure, Array of structure, Enumerated data types, Union of structure.

Text Books:

1. E. Balaguruswamy, “Programming In C ”, TMH Publications
2. Kanetkar, “Let Us C”

References Books:

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1. Ashok N. Kamthane, “Programming with ANSI and Turbo C”, Pearson Education
 2. Ashok N. Kamthane et. al., Computer Programming and IT (for RTU), Pearson Education, 2011 (ISBN 978-81-317-5970-7)
 3. Mahapatra, “ Thinking In C ”, PHI Publications
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