

Roll No. 223112320007
Havi

Exam Code : M-23

Subject Code—59313

B.Sc. EXAMINATION

(Main & Reappear)

(Batch 2018 Onwards)

(Second Semester)

**COMPUTER APPLICATIONS-PROGRAMMING
IN 'C'**

CCaL-205

Time : 3 Hours

Maximum Marks : 80

Note : Q. No. 1 is compulsory. Attempt any *four* questions selecting *one* question from each Unit. All questions carry equal marks.

1. (a) Define Debugging.
- (b) What do you understand by operator precedence ?

(3-66-13-0523) J-59313

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- (c) Write down the purpose of scanf function.
- (d) What is meant by Branching ?
- (e) What are the commonly used ways to represent algorithms ?
- (f) How does an array differ from an ordinary variable ?
- (g) What is the purpose of program planning ?
- (h) Write any two rules for constructing variable name in C. $8 \times 2 = 16$

Unit I

- 2. (a) What is a Flowchart ? Why we use Flowcharts ? Write down various advantages and limitations of Flowcharts.
- (b) What do you understand by the terms searching and sorting ? Write an algorithm for Bubble Sort. $8 + 8 = 16$

Or

3. (a) What is Documentation ? What is need for documentation ? Explain various forms of documentation.
- (b) Write a short note on Programming methodologies. 8+8=16

Unit II

4. (a) Discuss several different types of operators that are included in C.
- (b) What do you understand by the term identifiers ? Summarize the rules for naming identifiers. How many characters can be included in an identifier name ? Are all of these characters equally significant ? Are uppercase letters equivalent to lowercase letters ? 8+8=16

Or

5. (a) What is an arithmetic expression ?
Explain the hierarchy of operations and associativity of operators while executing an arithmetic expression.
- (b) Write a short note on basic types of instructions in C. $8+8=16$

Unit III

6. (a) Differentiate between if statement and if-else statement with suitable examples and proper syntax.
- (b) Explain the use of 'break' statement ?
Write a program to check whether a number is prime using break statement. $8+8=16$

Or

7. Write short notes on the following : $8+8=16$
- (i) Switch Statement
- (ii) Continue Statement.

Unit IV

8. (a) Explain about different storage classes with examples. Discuss their uses and scope.
- (b) Explain about call by value and call by reference with reference to functions. Write a function to swap the values between the variables using call by value and call by reference.

$$8+8=16$$

Or

9. (a) What is an Array ? How to initialize, accessing, and print the array elements ?
- (b) What is meant by Recursion ? What are its uses ? How is it implemented ? Explain with example.

$$8+8=16$$