

(i) Printed Pages: 3]

Roll No. ....

(ii) Questions : 9]

Sub. Code : 

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Exam. Code : 

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**B.A./B.Sc. (General) 2nd Semester  
Examination**

**1047**

**INFORMATION TECHNOLOGY**

**Paper : B (Computer Programming using C)**

**Time : 3 Hours]**

**[Max. Marks : 65**

*Note :-* Attempt *five* questions in all including the compulsory question and taking *one* question each from Section A-D.

**COMPULSORY QUESTION**

1. Write short notes on the following :

- (a) What do you understand by procedural programming ? 2
- (b) Why do we use header files ? 2
- (c) What is difference between prefix and postfix increment operator in C ? 2

- (d) What is recursion ? 2
- (e) State difference between malloc and calloc function. 2
- (f) Name the conditional compilation directives. 3

### Section-A

2. What do you understand by computer based problem solving ? What are the various requirements of problem solving by the computer ? How is problem indentified and defined ? Explain some problem solving strategies. 13
3. What is the importance of the following steps in implementation of a problem ? Explain.
  - (a) Use of procedures
  - (b) Choice of variable names
  - (c) Documentation of program
  - (d) Program testing. 13

### Section-B

4. (a) Discuss the structure of C program with help of an example.
- (b) What are the various storage class specifiers used in C ?

- (c) Discuss break and continue statement used in C with example. 13
5. What are arrays ? How are they stored in memory ? How do you create and initialise one dimensional and two dimensional arrays ? Write a program to sort the elements of an array. 13

### Section-C

6. What do you understand by function declaration, definition and call ? How do you pass parameters to a function ? Discuss with appropriate code. 13
7. What are pointers ? Why are they used ? Write a program to find sum of array elements using pointers. 13

### Section-D

8. Discuss the following :  
(a) Arrays of structure  
(b) Union  
(c) Enumerated data types. 13
9. Discuss the various functions used to perform file handling in C. Write a program to read all letters from a text file. 13