

(A) Printed Pages: 2 Roll No.

(ii) Questions : 9 Sub. Code :

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Exam. Code :

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

1059

INFORMATION TECHNOLOGY

Paper—B : Computer Programming Using C

Time Allowed : Three Hours]

[Maximum Marks : 65

Note :— The students are required to attempt *one* question each from Sections A to D and the compulsory question.

SECTION—A

1. (a) Explain the steps in solving a problem on the computers. 8
(b) What is modular design ? What are its benefits ? 5
2. (a) What is purpose of using a programming language ?
Discuss programming language classification. 8
(b) What are the benefits of top-down design ? How it is carried out ? Discuss. 5

SECTION—B

3. (a) What is an operator in C ? List various types of operators available in C. 8
(b) Compare if statement and conditional operator. 5
4. (a) What are storage classes ? Describe the various types of storage classes in C language. 8
(b) Explain briefly the programming constructs for “loop” with the help of an example. 5

SECTION—C

5. (a) What are the different ways to pass arguments to a function ? Explain with example. 8
- (b) Explain dynamic memory allocation functions. 5
6. (a) What is recursion ? What are its benefits ? What can happen in case the terminating condition is not met while performing recursion ? 8
- (b) Explain the concept of array of pointers. How it is useful ? 5

SECTION—D

7. (a) What is structure ? Describe the initializing of structure. How does it differ from array ? 8
- (b) Explain the following file accessing functions with example : fopen, fclose. 5
8. (a) What is union ? How do you access union members ? Explain with example. 8
- (b) What are Header files ? What purpose do they serve ? Discuss any five header files. 5

(Compulsory Question)

9. (a) What is syntax error ? 2
- (b) Describe the general structure of a C program. 3
- (c) What is type casting ? 2
- (d) What are local and global variables ? 2
- (e) What are macros in C ? 2
- (f) Explain the '&' and '*' operators. 2