

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – STATISTICS

FIFTH SEMESTER – NOVEMBER 2009

ST 5401 - C & C ++

Date & Time: 14/11/2009 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

SECTION A

Answer all questions.

(10x2=20)

1. Mention the different divisions of a C program.
2. What is the difference between float and double data type?
3. What will be the value of $a \ll 1$, if $a=20$?
4. What is meant by nested loop?
5. Write a C program to accept an integer and display whether it is odd or even.
6. Mention four operators available in C++ that are not available in C.
7. Mention the difference between local and global variable.
8. Define an object with reference to C++ language.
9. Write a C++ program to find the area of a rectangle.
10. What is meant by polymorphism?

SECTION B

Answer any FIVE questions.

(5x8=40)

11. Explain the arithmetic, relational and logical operators available in C language.
12. Explain the syntax of if – else and if – else if statement with an example each.
13. Write a C program to accept a character and display whether it is a vowel or a consonant.
14. Explain the concept of one and two dimensional arrays.
15. What are structures? Explain the syntax of creating a structure in C language.
16. Write a C++ program to find the roots of a quadratic equation.
17. Explain the concept of friend function with an example.
18. Write a C++ program to find the mean and variance of 'n' integers.

SECTION C

Answer any TWO questions.

(2x20=40)

19. a.) Explain the syntax of switch – case statement with an example.
b.) Write a C program to display the maximum of three integers. (10+10)
20. a.) Write a C program to find the sum of two square matrices of order $n \times n$ each.
b.) Explain the concept of jumping and looping with an example each. (10+10)
21. a.) Explain the salient features of object oriented programming.
b.) Explain the public, private and protected access specifiers available in C++ language. (10+10)
22. What is meant by inheritance? Explain the different types of inheritance with an example each.
