

[108/113]

SEAT No. _____

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9

Sardar Patel University
External Examination (NC)
M.Sc. Statistics/M.Sc. Applied Statistics Semester I
PS01ESTA21/PS01EAST21:Statistical Computing through C++
March 29, 2019, Friday
Time: 10:00 a.m. to 01:00 p.m.

Marks:70

Q1. Multiple Choice Questions.

08

- i. _____ used as an alternate to if else statement.
(a) compound statement (b) ternary operator (c) simple statement (d) conditional statement
- ii. The size of _____ constant is 8 bits.
(a) numeric (b) string (c) long int (d) character
- iii. Given that $\text{int } X=3, Y=2$; the output of expression $(X/Y)+X$ is:
(a) 4.5 (b) 4 (c) 3 (d) 1.5
- iv. _____ loop statement is repeat indefinite time.
(a) `for(i=1;i<=1000;i++)`; (b) `for(; i<=1000;i++)`; (c) `for(; ;)`; (d) `for(; ; i++)`;
- v. Variables which are declared outside the main are called _____ variables.
(a) local (b) global (c) external (d) both (b) and (c)
- vi. _____ statement has fall through effect in execution.
(a) if (b) switch case (c) switch case break (d) go to
- vii. In pointer arithmetic we cannot perform following operations.
(a) multiplication (b) addition (c) subtraction (d) both (b) and (c)
- viii. _____ operator has highest precedence among all operators.
(a) arithmetic (b) bitwise logical (c) unary (d) relational

Q2. Short Answer Type Question. (Any Seven)

14

- i. What do you mean by bitwise operator? Give the list of bitwise logical operators used in C++.
- ii. Give the syntax of ternary operator. Further give its application.
- iii. What is the role of break statement in C++? In which statement we use it more often?
- iv. Which pre-processor is used to load the file in programme? Further write the name of any two header files.
- v. Write the syntax of numeric array initialization and string array initialization.
- vi. Distinguish between automatic variable and external variable.
- vii. Write a programme segment to find maximum of any two numbers.
- viii. Distinguish between simple macro definition and macro with parameters.
- ix. Write brief on pointer assignments.

(P.T.O.)

- Q3(a) Discuss arithmetic operator and logical operator. 06
(b) Write note on numeric constant and character constant 06
[OR]
- (b) Write on 06
(i) identifier (ii) keyword (iii) setbase (iv) if else statement
- Q4(a) Explain for loop in details. 06
(b) Write the programme to find sum of any 'n' numbers using while loop. 06
[OR]
- (b) Which statement is used as an alternate to nested if else structure? Explain. 06
- Q5(a) Distinguish between usual function and recursive function. Further explain the structure of function. 06
(b) Which type of function is said to have two way communications between called function block and calling portion of programme? Explain with programme. 06
[OR]
- (b) Write a programme to evaluate:
- $$S = 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots + \frac{x^n}{n!}$$
- Q6(a) Explain arrays and functions. 06
(b) Define pointer operator and address operator. Further give the summary of pointer arithmetic. 06
[OR]
- (b) Write short note on (i) call by value (ii) call by reference 06

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2