

Roll No.

Total Pages : 3

GSE/D-21

1195

PROGRAMMING IN C

Paper-BCA-116

Time : Three Hours]

[Maximum Marks : 80

Note : Q. No. 1 is compulsory. In addition, attempt four more questions selecting exactly *one* question from each unit. All questions carry equal marks.

Compulsory Question

1. (a) What is a symbolic constant in C?
- (b) Out of printf() and puts(), which statement is better for output of a string?
- (c) Can one type of data be converted into another? Give an example.
- (d) Comment on the purpose of default case in switch statement.
- (e) What is the purpose of continue statement?
- (f) What is meant by prototype of a function?
- (g) Which storage type is considered as default?
- (h) How can you pass an array to a function? (8×2=16)

UNIT-I

2. (a) Describe the various rules for naming of an identifier. (8)

(b) What is the difference between formatted and unformatted I/O statements? Explain using suitable examples. (8)

3. (a) Explain the history and importance of C language. (8)

(b) Explain the various format specifiers that can be used in scanf() and printf(). Also describe the escape sequence that are commonly used in printf() function. (8)

UNIT-II

4. (a) What do understand by unary, binary & ternary operators in 'C' ? Explain with examples. (9)

(b) Which of the following arithmetic expressions are valid? If valid, give the value of the expression; otherwise give reason.

(i) $25/3\%2$.

(ii) $+9/4+5$.

(iii) $7.5\%3$.

(iv) $21\% (\text{int})4.5$.

(v) $(5/3)*3+5\%3$. (7)

5. (a) Write a program in 'C' to swap the values of two variables without the use of third variable. (8)

(b) Describe the IF statement and its variations using suitable examples in C. (8)

UNIT-III

6. (a) Write a program in 'C' to generate first n prime numbers. (8)
- (b) What is prototyping? Why is it necessary? (4)
- (c) Differentiate between actual & formal arguments. (4)
7. (a) Write a program in 'C' to display the all integers greater than 100 and less than 200 that are divisible by 7. (8)
- (b) What is recursion? Explain using appropriate examples. (8)

UNIT-IV

8. Distinguish between the following :
- (i) Global and Local Variables.
- (ii) Automatic and Static Variables.
- (iii) Scope and Visibility of variables
- (iv) One-dimensional and Two-dimensional Array. (16)
9. Write a program in 'C' to search a number from a given list of numbers. (16)
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