

(T)

Roll No.

Compulsory Question

ID—8036

B.C.A. EXAMINATION, 2022

(Batch 2021-2022)

(Second Semester)

C PROGRAMMING

Code : BCA106

Time : 3 Hours

Maximum Marks : 80

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

1. (a) What is the role of Header file in C program ?
- (b) Differentiate between constant and variables.
- (c) Explain Break and Continue statement.
- (d) What is Pointer ? How is Pointer initialized ?
- (e) What is function prototype ?
- (f) What are nested Loops ?
- (g) What is Array of string ?
- (h) What are storage class ? Give the classification of storage class. 16

Unit 1

2. (a) What are the basic data type in 'C' ? Explain with example.
- (b) Write a program in 'C' to obtain the gross salary by calculating dearness allowance and house rent allowance. 16

3. What is meant by hierarchy of operators ?
Provide a brief outline of all operators supported by 'C' language along with their hierarchy with in expressions using suitable examples. 16

Unit II

4. (a) Write a program to find the number of and sum of all integers greater than 100 and less than 200 that are divisible by 7.
(b) What is the purpose of While and Do-While statement ? What is minimum number of times while and do-while statement will be executed ? 16
5. (a) Write short notes on the following :
(i) Break statement
(ii) Continue and go to statement
(b) Write a program using while loop to reverse the digits of the number. 16

Unit III

6. (a) Differentiate between Call by value and Call by reference with example.
(b) Explain various string manipulation function with example. 16
7. (a) Differentiate gets(), getch(), getche(), getchar() with example.
(b) What do you mean by function prototyping ? Write down the advantages of function prototype in 'C'. 16

Unit IV

8. (a) What is an array ? Explain different types of array with suitable example.
(b) Write a program to find the highest of three numbers using pointers to function. 16
9. (a) What is an algorithm ? What are the characteristics necessary for a sequence of instructions to qualify as an algorithm ?
(b) Write a program in c to add two matrices of order $m * n$. 16