B.C.A(Hons)1ˢᵗ Semester Examination ,2020
Paper Name: Introduction to C Programming
Paper Code: BCA-102
Subject: Computer Application

F.M:80   **Time: 3Hrs**

1. Answer any *five* Questions: 5x10=50

(a) What is string? How does it differ from character array? Write a program in C that simulates the standard string library function strcat() .   2+2+6

(b) What is pointer? Explain dynamic memory allocation technique in C language with an example.   2+8

(c) Write a program in C that multiplies two 3x3 matrices.   10

(d) What is function? Design a simple calculator using C language.   2+8

(e) What is Recursion? Explain it with a suitable example .Write a recursive function that reverses a string.   2+4+4

(f) Write a program in C to sort a set of given numbers, stored in an array 10

(g) Write a short note on the following.   5+5
   (i)   Pre processing in C
   (ii)   File Handling in C

2. Answer any *six* Questions: 6x5=30

(a) What is an array? Write a program in C that determines largest number of an array. 2+3

(b) Show the differences between call by value and call by reference technique in C language with an example.   5

(c) Discuss if-else-if ladder with an example. Differentiate between break and continue statements.   3+2

(d) Write a program in C that determines whether a given number is prime or not.   5

(e) What is decision table? Explain it with a suitable example.   5

(f) Differentiate between structure and union.   5

(g) Draw a flow chart to find GCD of two integers.   5

(h) Discuss different storage classes of C.   5