NRT/KS/19/2207

Bachelor of Computer Application (B.C.A.) Semester–I Examination

"C" PROGRAMMING

Paper–II

Time : Three Hours] [Maximum Marks : 50

N.B. :— (1) All questions are compulsory and carry equal marks.
(2) Draw well labelled diagram wherever necessary.

EITHER

1. (a) What do you understand by programming structure ? Explain in brief. 5
   (b) Define flowchart. Draw a flowchart to find greatest among three numbers. 5

OR

   (c) Define algorithm. Write an algorithm to find whether a given year is leap year or not. 5
   (d) Give the difference between algorithm and pseudocode. 5

EITHER

2. (a) What is data type ? Explain different data types supported by 'C-language'. 5
   (b) Write and explain a program in 'C' to print half pyramid using alphabets as given below :

```
A
B B
C C C
D D D D
E E E E  E
```

5

OR

   (c) What is ternary operator ? Explain giving suitable example. 5
   (d) Write a program in 'C' to print numbers from 1 to N using while loop. 5

EITHER

3. (a) Define array. Write a program in 'C' to delete an element from one dimensional array at a given position. 5
   (b) Write any five string manipulation functions provided by 'C' language ? Explain with suitable example. 5

OR

   (c) Write a program in 'C' to illustrate function with :
   No argument and no return value. 5
   (d) What is storage class ? Explain various storage classes with suitable examples. 5

EITHER

4. (a) Give the difference between structure and union. 5
   (b) How will you declare pointer to pointer ? Write a 'C' program to read two integers and determine bigger of the two with the help of function big( ) returning an integer pointer. 5

OR

   (c) What is file ? Describe various modes to open a file with suitable examples. 5
   (d) (i) Create a structure student with the members Roll_ No, Name, Marks.
   (ii) Create the instances s1 and s2 of structure student.
   (iii) Assign data to s1 using scanf( ) function.
   (iv) Give the memory representation of s1. 5

5. (a) If a = 10, b = 20 then c = (a++) + (– –b) + 10 and find the value of a, b, c. 2½
   (b) Differentiate between break and continue statement. 2½
   (c) Illustrate with example formal and default argument. 2½
   (d) Differentiate between sequential and random access. 2½