104/134   **Pri. of Pro. Lan. (Through 'C')**

B.C.A. (Part-I) EXAMINATION - 2022
(Faculty of Science)
(Three-Year Scheme of 10+2+3 Pattern)

PRINCIPLES OF PROGRAMMING LANGUAGE (THROUGH 'C')

Time Allowed : Three Hours   Maximum Marks : 100

Answers of all the questions (Short answer as well as descriptive) are to be given in the main answer-book only. Answers of Short answer type questions must be given in sequential order. Similarly, all the parts of one question of descriptive part should be answered at one place in the answer-book. One complete question should not be answered at different places in the answer-book.

Write your roll number on question paper before start writing answers of questions.

Question paper consists of **three** parts.
All three parts are compulsory.

PART-I: (Very Short answer) consists of **10** questions of 2 marks each. Maximum limit for each question is upto **40** words.

PART-II: (Short answer) consists of **5** questions of 4 marks each. Maximum limit for each question is upto **80** words.

PART-III: (Long answer) consists of **5** questions of 12 marks each with internal choice.

PART - I

1.   Attempt all questions. Each question carries 2 marks.   10x2=20

(a)   What do you mean by procedural programming language ?

(b)   What is a keyword in C ?

(c)   Define global and local variable in C with example.

(d)   What is a constant variable and how they are declared and initialized ?

(e)   Define the use of goto statement with example.

(f)   What do you mean by entry-controlled loop and exit-controlled loop ?

(g)   What do you mean by pre-defined and user defined functions ?

(h)   What is pointer variable ?

(i)   What do you mean by typedef ?

(j)   What is structure ? Write its declaration syntax.

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PART - II

5x4=20

2. Attempt all questions. Each question carries 4 marks.

   (a) Define the basic structure of C program.

   (b) What is data type ? Draw the classification diagram of data types in C along with their size and range.

   (c) What is loops in C ? Write difference between while and do while with example.

   (d) Explain user defined and library functions in C with example.

   (e) What do you mean by a text file and binary file in file handling ?

PART - III

3. Explain the history of evolution of C programming language. What is the basic concepts of C language ? 12

OR

Write difference between Algorithm, Pseudocode and Flow Chart with proper example. 12

12

4. Explain tokens in C language with proper example. 12

OR

Explain Decision making statement with suitable example. 12

12

5. What is 2-D array ? Write a code to declare and initialize a 2-D array. 12

OR

Explain string handling functions in C. 12

6. Explain formal and actual argument of a function. Write a program of call by reference in C. 12

OR

   (a) What is null pointer and void pointer ? 6+6=12

   (b) Explain pointer to pointer with proper example.

7. What do you understand by file handling ? Explain the methods used for file handling in C language 12
   with syntax.

OR

Explain the following : 8x4=12

   (a) Typedef

   (b) Union

   (c) Size of structure

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