G-4/432/21

Roll No. ....

M.Sc. IV Semester Examination, 2021

MATHEMATICS

Paper V

(Programming in 'C' with Ansi Features–II)

Time : 3 Hours]   [Max. Marks : 56

Note : *All questions are compulsory. Question Paper comprises of 3 sections. Section A is objective type/multiple choice questions with no internal choice. Section B is short answer type with internal choice. Section C is long answer type with internal choice.*

SECTION A   1 × 11 = 11

(Objective Type Questions)

Choose the correct answer :

1. What will be the result of len variable after execution of the following statement ?

   int len;

   char str1[ ] = {"39 march road"};

   len = strlen(str1);

   (a) 11   (b) 12

   (c) 13   (d) 14

2. Let p1 be an integer pointer with a current value 2000. What will be the content of p1 after the express p1++ has been evaluated :

   (a) 2001   (b) 2002

   (c) 2004   (d) 2008.

3. For 16-bit compiler, the range for integer constant is .... ?

   (a) – 3.4e38 to 3.4e38   (b) – 32767 to 32768

   (c) – 32668 to 32667   (d) – 32768 to 32767.

4. C programs are converted into machine language with the help of .... :

   (a) an editor   (b) a compiler

   (c) an operating system   (d) none of these.

5. Which is the only function all C programs must contain ?

   (a) start( )   (b) system( )

   (c) main( )   (d) printf( )

6. Which of the following is not a valid name for a C variable ?

   (a) Government college   (b) Government_college

   (c) Governmentcollege   (d) None of these.

7. C was primarily developed as :

(a) System programming language

(b) General purpose language

(c) Data processing language

(d) None of the above.

8. Standard ANSI C recognizes .... number of keywords ?

(a) 30　　　　　　(b) 32

(c) 24　　　　　　(d) 36.

9. Which one of the following is not a reserved keyword for C ?

(a) auto　　　　　(b) care

(c) main　　　　　(d) default

10. A C variable cannot start with :

(a) a number

(b) a special symbol other than underscore

(c) both (a) and (b)

(d) an alphabet

11. Which of the following correct variable type ?

(a) flvat　　　　　(b) real

(c) int　　　　　　(d) double.

SECTION B　　　　**3 × 5 = 15**

(Short Answer Type Questions)

Note : Attempt all questions from each unit with internal choice.

Unit-I

1. Write a program to find area of the triangle using global variable.

Or

Write short notes about Automatic duration.

Unit-II

2. Write a program for

$$\bar{x} = \sum_{i=1}^{10} \frac{x_i}{n}$$

using array. Take any 10 values according to your choice.

Or

Write a program for copying of any two strings.

Unit-III

3. Wrie a program for addition of any two complex numbers.

Or

What is the use of # define preprocessor.

Unit-IV

4. How can you determine the size of an allocated portion of memory.

Or

What is the difference between malloc and calloc.

Unit-V

5. How to get data using freek( ).

Or

What is the difference between buffered and unbuffered I/O.

SECTION C   6 × 5 = 30

(Long Answer Type Questions)

Note : Attempt all questions.

Unit-I

1. Explain the roll of semantics in detail.

Or

Explain storage classes in C.

Unit-II

2. Write a program to print the address of a variable along with its value.

Or

Write a program to illustrate the use of indirection operator '*' to access the value pointed by a printer.

Unit-III

3. Define the Macro in C and write the advantages and drawbacks of Macro.

Or

Write notes on conditional compilation in C.

Unit-IV

4. Write a program using structure for the information of the student having Roll Number, Name, percent of the marks. Enter data yourself for any four students.

Or

Write the advantages of linked list.

Unit-V

5. Write a program for opening and closing a file.

Or

Explain any six header files.

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