W - 3203
Third Semester Examination 2021
M.Sc. (Mathematics)
Programming in C (with ANSI Features)
Paper - III

Time :- 3 Hrs.   M.M. 50

SECTION - A

Very short answer type questions.(maximum 3 lines)
(4x2=8)

Q.1   Why 'C' is called as a middle level language ?

Q.2   List the tokens that are used in this program

```
int main()
    {
        printf("Hello World");
    }
```

Q.3   What will happen when you access the array more than its dimension ?

Q.4   What is type casting?

SECTION - B

Short answer type questions with maximum word limit 150 words.   (4x4=16)

Q.5   What do you understand by the cyclic nature of data types in C ?

OR

What will be the output of these programs:

(i)   (ii)

int main()   int main()

```
{                              {
int f=1,i;                     int a=65;b=97;
for(i=0; <=5; i++);            printf("%c %c", a, b);
f=f*i;                          return 0;
printf("%d", f);               }
return 0;
}
```

Q.6   What are the modifiers available in C programming language ?

OR

Write a program in C to generate random numbers with the help of inbuilt function?

Q.7   Differentiate "while" and "do-while" loop with example?

OR

Write a C program to find and print prime numbers available between 1 to 20 ?

Q.8   Explain the following & illustrate each with an example (any one):
i.   Increment & Decrement operator.
ii.   Conditional operator

OR

What is the use of size of operator?

SECTION - C

Long answer type questions with maximum word limit 500 words.   (4x6½=26)

Q.9   What are the advantages of function? Explain function declaration, function call and function definition with an example ?

OR

What is recursion ? Write a C program which calculates factorial for a given number using recursive function.

Q.10 What is the purpose of type declarations ? What are the components of type declaration ?

OR

Explain call by reference with an example.

Q.11 Explain the significance of break and continue statements in C. Support your answer with an example.

OR

Write a C program to create simple calculator using switch case ?

Q.12 What is the difference between malloc and calloc?

OR

Explain operator precedence and associativity with the help of examples.

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