

**AI-1547**

M. A. / M. Sc. (Final)
Term End Examination, 2020-21

MATHEMATICS*Paper : Third***(Programming in 'C' : With ANSI features)***Time Allowed : Three hours**Maximum Marks : 100**Minimum Pass Marks : 36*

Note : Answer any five questions. All questions carry equal marks.

1. (a) Explain the basic structure of C program source code.
- (b) What do you mean by pre-processors explain any two pre-processor directives.

2. (a) Write short notes about numeric data type used in C.

(b) Explain typecasting.

3. (a) Explain the use of break and continue keyword with example.

(b) What is conditional statement? Write a program to demonstrate use of nested if-else.

4. (a) What is looping? Write a program to print the following pattern

```
1
2  3
4  5  6
7  8  9  10
```

(b) Write down the differences between entry control loop and exit control loop.

5. What do you mean by operator? Explain its type with example.

6. Write a program to initialize and array with 10

integers and find smallest and biggest number using loop.

7. (a) What are the differences between structure and union? Explain with suitable example.
- (b) What is pointer? Explain pointer dereferencing.
8. Explain the concept of dynamic memory allocation with suitable example by using dynamic allocation function.
9. Write a C program to count number of words in any given file.(text file) let the words are separated with single space.
10. (a) What is function? Explain its prototype based classification.
- (b) Write a program to find greater number among three number using conditional operator.