No. of Printed Pages: 1 MMT-001(P)(Set-I)

M. SC. (MATHEMATICS WITH APPLICATIONS IN COMPUTER SCIENCE) (M. Sc. (MACS))

Term-End Practical Examination December, 2024

MMT-001(P)(Set-I): PROGRAMMING AND DATA STRUCTURES

Time: 2 Hours Maximum Marks: 50

Note: (i) There are two questions in this paper, totalling 40 marks.

- (ii) Answer both of them.
- (iii) Remaining 10 marks are for viva-voce.
- 1. Write a C program that finds all primes smaller than a given number and store them in a file.
- 2. Write a program that computes the value of $\tan^{-1} x$ using the power series expansion: 20

$$x - \frac{x^3}{3} + \frac{x^5}{5} - \dots$$