No. of Printed Pages : 2 **MMTE–001(P)(Set-I)**

M. Sc. (MATHEMATICS WITH APPLICATIONS IN COMPUTER SCIENCE (MSCMACS)

Term-End Practical Examination

June, 2025

MMTE–001(P)(Set-I) : GRAPH THEORY

Time : $1\frac{1}{2}$ *Hours* *Maximum Marks : 40*

***Note** : (i) There are **two** questions in this paper totalling 30 marks.*

(ii) The remaining 10 marks are for viva-voce.

(iii) All the programs are to be written in C language.

1. Implement the Ford-Fulkerson Algorithm to compute the maximum flow in a given network. Run your program for some small networks. 20

2. Write a program that uses the BFS Algorithm to find a rooted spanning tree in a given connected graph. The program should print the edges of the spanning tree. 10

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