No. of Printed Pages : 2

MMTE–001(P)(Set-I)

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

Term-End Practical Examination

June, 2026

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. Answer both of them.*

(*ii*) *Remaining 10 marks are for viva-voce.*

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

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1. Write a program that uses BFS algorithm to find a rooted spanning tree in a given connected graph. The program should print the list of edges of the spanning tree. 20

2. Write a program that stores a weighted graph using adjacency list representation, and prints the weight of any input sub-graph of it. 10

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