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

00870

Term-End Examination

June, 2013

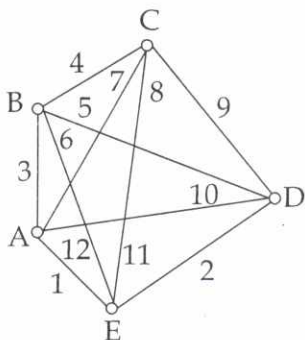### MMTE–001 (P) : GRAPH THEORY

Time : 1½ hours   *Maximum Marks : 40*

Note :   *There are two questions in this paper totalling **30 marks**. Answer **both** of them. Remaining **10 marks** are for the viva-voce.*

1.   Write a program in C language that prints the   **10**
adjacency matrix of a graph, taking as input the
edge set of the graph. Use it to print the adjacency
matrix of the following graph.

2.   Write a programme in C language that finds the   **20**
minimal spanning tree of a graph. Use it to find
the minimal spanning tree for the graph in the
above figure.