MMTE-001(P)

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

00383

M.Sc. (MACS)

Term-End Practical Examination

December, 2014

MMTE-001(P) : GRAPH THEORY

Time : $1\frac{1}{2}$ 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 incidence matrix of a graph taking as input the edge set of the graph. Use it to print the incidence matrix of the graph in Figure 1.   *10*
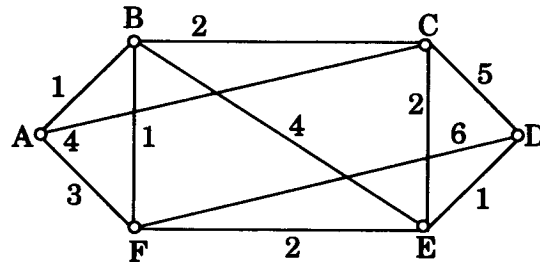

Figure 1

2. Write a program that finds the shortest path between a pair of vertices x and y in a weighted graph G. Use the program to find the shortest path between A and D in Figure 1.   *20*