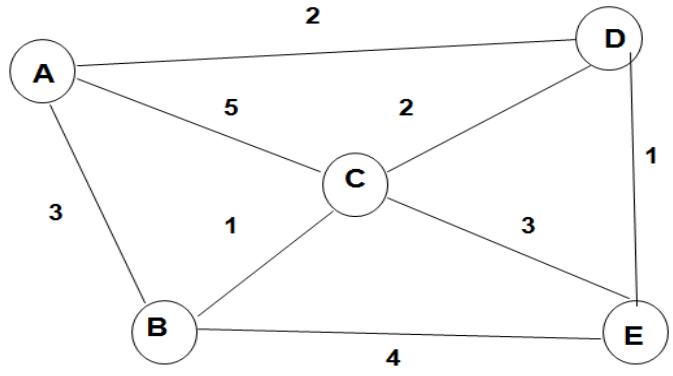
M S RAMAIAH INSTITUTE OF TECHNOLOGY
(Autonomous Institute, affiliated to VTU)
DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

Term:	18.01.2016 to 14.05.2016	**Course Code:**	IS611
Course:	Computer Networks	**Semester:**	VI – A, B & C
CIE:	Test – I	**Max Marks:**	30
Date:	01.03.2016	**Time:**	9.30 AM – 10.30 AM

Portions for Test: Lecture Nos. from 1 to 22 as per lesson plan.

Instructions to Candidates: Answer any two questions.

Note: Mobiles and Programmable Calculators are strictly prohibited.

Sl. #	Question	Marks	Bloom's Level #	COs
1.	a) What are the restrictions imposed on classless address blocks? An Organization is granted the block 211.17.180.0/24. The administrator wants to create 32 subnets. (i) Find the subnet mask (ii) Find the number of addresses in each subnet (iii) Find the first and last address of subnet 1 (iv) Find the first and last address of subnet 32 (v) Find the network address of subnet 3	8	A	CO1
	b) List the limitations of static address mapping. A host with IP address 130.23.43.20 and physical address B2:34:55:10:22:10 has a packet to send to another host with IP address 130.23.43.25 and physical address A4:6E:F4:59:83:AB (which is unknown to the first host). The two hosts are on the same Ethernet network. Show the ARP request and reply packets encapsulated in Ethernet frames.	7	A	CO2
2.	a) List the deficiencies of IPv4 that make it unsuitable for the fast growing Internet. Give the comparison between IPv4 options and IPv6 extension headers.	8	An	CO1
	b) Give the flow chart for Dijkstra algorithm. Discuss on the different flags used in a routing table.	7	U	CO2
3.	a) Elaborate on the different strategies of transition from IPV4 to IPV6.	8	U	CO1
	b) Use the bellman ford algorithm to find the set of shortest path to the destination node D from all other nodes in the following network. 	7	A	CO2

#R – Remember; U – Understand; A – Apply; An – Analyze;