Total no. of pages: 2   Roll No...........

FIFTH SEMESTER   **B. Tech. [ALL]**

Supplementary EXAMINATION   **Feb- 2019**

        EP311   Computer Networks

Time: 3:00 Hours   **Max. Marks: 50**

> **Note:** Answer any **FIVE** questions .
> All questions carry equal marks. Drawn neat diagram wherever necessary. Assume suitable missing data, if any.

1 [A] With the help of a suitable block diagram explain concept of layered architecture of a computer network. [5]

   [B] Draw the TCP/IP protocol and explain functions of each layer briefly [5]

2 [A] What are the functions of data link layer explain in detail? [5]

   [B] Differentiate between flow control and error control. How is flow control managed at data link layer? [5]

3 [A] Given the following network addresses, find the class, the block, and the range of the addresses. Also represent the same in Classsless format .
     i. 123.12.0.0
     ii. 212.80.56.0 [5]

   [B] What is the Network ID, subnet mask , broadcast address, First Usable IP and Last Usable IP on the subnet that a node 192.186.1.15/28 belongs to? If the given block was to be divided among four subnets determine the First and Last Usable IP of each subnet. [5]

4 [A] What are the drawbacks of Distance Vector Routing [5]

   [B] Explain the working of Link state routing ? [5]

5 [A] Draw the datagram header format for IPv4, explaining the function of each fields. [5]

   [B] Compare IPv6 and IPv4 ? [5]

6 [A] Compare the TCP and UDP header format and thereby justify their suitability for connection oriented/less protocol for process to process communication. [5]

   [B] How do firewalls ensure the security of a computer network? [5]

7   Write short notes on **any TWO** [5X2]

   [A] The WWW, HTTP and FTP

   [B] The Domain Name System

   [C] Ethernet as a LAN standard