Preetam Amrit

Subject: Advanced Computer Networks
Code: 10M11CI112

Max. Marks: 25

Max. Time: 90 Minutes

Note: *All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

Q. 1 a) What is routing? Differentiate between routing and Flooding.   [2*2=4]

   b) Explain architecture of LoWPAN and LPWAN.

Q 2   a) Explain Distance vector routing algorithm with examples.   [3*2=6]

   b) What are the causes of congestion in networks? Write down its effects also.

Q 3 a) An ISP is granted a block of addresses starting with 190.100.0.0/16 (65536) addresses the ISP needs to distribute these addresses to three groups of customers as follows: [1+1+1+2=5]
1) The first group has 64 customers, each needs 256 addresses
2) The second group has 128 customers, each needs 128 bits.
3) The third group has 128 customers, each needs 64 addresses.

       Design the sub blocks and find out how many addresses are still available after these allocations.

   b) What is congestion? Explain the congestion control techniques and congestion control algorithm.
                                                                                          [1+2+2=5]

   c) Draw TCP header and explain in details. Differentiate between TCP and UDP. [1.5+2+1.5=5]