R15

Code No: 823AE

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA III Semester Examinations, April/May - 2019
COMPUTER NETWORKS

Time: 3hrs   **Max.Marks:75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

5 × 5 Marks = 25

1.a) Discuss flow control technique in data link layer.   [5]
   b) Write the assumptions for dynamic channel allocation.   [5]
   c) Write the services of network layer provided to transport layer.   [5]
   d) Explain the primitives of transport layer.   [5]
   e) Write the features of TCP.   [5]

PART - B

5 × 10 Marks = 50

2. Explain OSI reference model of computer network with suitable diagram and discuss about role of each layer of OSI reference model.   [10]

OR

3.a) Discuss about sliding window protocol for noisy channel.
   b) Write about Go-back-N protocol.   [5+5]

4.a) Explain learning bridges with a neat sketch.
   b) Elaborate bit map protocol.   [5+5]

OR

5. Explain persistent and non persistent CSMA protocols.   [10]

6.a) What is virtual circuit? Explain it briefly.
   b) Give a detailed note on flooding.   [5+5]

OR

7. Explain the following routing techniques.
    a) Broadcasting routing
    b) Distance vector routing.   [5+5]

8. Explain in detail about ARP protocol.   [10]

OR

9. Explain steps for connection establishment and releasing in transport layer.   [10]

10.a) Explain UDP message queuing technique.
    b) Describe HTTP message formats.   [5+5]

OR

11. Write notes on
    a) POP
    b) TCP sliding window.   [5+5]