



Code No: 823AE

R15**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. [5+5]
- b) Write about Go-back-N protocol. [5+5]
- 4.a) Explain learning bridges with a neat sketch. [5+5]
- 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. [5+5]
- b) Give a detailed note on flooding. [5+5]
OR
7. Explain the following routing techniques. [5+5]
 - a) Broadcasting routing
 - b) Distance vector routing.
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. [5+5]
- b) Describe HTTP message formats. [5+5]
OR
11. Write notes on [5+5]
 - a) POP
 - b) TCP sliding window.