

R18

Code No: 155AN

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year I Semester Examinations, March - 2021

COMPUTER NETWORKS
(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

- 1.a) Explain the functionality of each layer in OSI reference model.
b) Discuss about Internet standards. [8+7]
- 2.a) Explain about various transmission media in physical layer with a neat sketch.
b) What are the responsibilities of Presentation layer and Session layer of OSI model? [8+7]
- 3.a) Write about CSMA and CSMA/CD in detail.
b) Explain how slotted ALOHA solves the problem of Channel allocation. [8+7]
- 4.a) What are the design issues of Data Link Layer? Explain.
b) Explain in detail about the Simplex Stop and Wait protocol. [8+7]
- 5.a) Describe the General principles of Congestion Control.
b) The major problem with distance vector algorithm is 'count to infinity'. How exchange of complete path from router to destination instead of delay, helps in solving count to infinity problem. [8+7]
- 6.a) Explain about Hierarchical routing algorithm.
b) Explain about QoS in Network layer. [7+8]
- 7.a) Explain in brief about TCP connection establishment and Release.
b) Describe in brief about TCP segment Header. [8+7]
- 8.a) Write short notes on Electronic Mail.
b) How DNS service maps domain names to IP addresses? Give an example. [8+7]

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