

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

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