Code No: 155AN

R18

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech III Year I Semester Examinations, August - 2022
COMPUTER NETWORKS
(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks
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1.a) What is the importance of layered architecture in network models? Discuss in detail.
 b) Differentiate between TCP/IP network model and ISO-OSI reference model.   [7+8]

2.a) Discuss about Network hardware components in detail.
 b) What are the advantages of fiber optic cables? Explain with a neat sketch.   [7+8]

3.a) What are the design issues of Data Link Layer? Explain in detail.
 b) Compare and contrast CSMA/CD and CSMA/CA for channel allocation.   [7+8]

4. What are various types of Error Detection methods? Explain about Cyclic Redundancy Check Error Detection Method with suitable example.   [15]

5.a) Define Routing. Explain Distance Vector Routing Algorithm with an example.
 b) What are the advantages and limitations of flooding?   [9+6]

6.a) Describe link state vector routing algorithm example.
 b) How to achieve quality of service using leaky bucket algorithm.   [7+8]

7.a) Explain connection management in transport layer.
 b) Compare and contrast TCP and UDP Protocols.   [7+8]

8.a) What are the major components in E-mail system? And explain the role of SMTP for sending and receiving messages.
 b) Discuss about HTTP request and response mechanisms.   [8+7]

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