

**Code No: 125DT****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year I Semester Examinations, February - 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) Differentiate between TCP/IP reference model with ISO-OSI reference model.
- b) What are the advantages of fiber optic cables? Explain with a neat sketch. [8+7]
2. What are various types of Error Detection methods? Explain about Cyclic Redundancy Check Error Detection Method with suitable example. [15]
- 3.a) Compare and contrast Pure ALOHA and Slotted ALOHA channel allocation Methods.
- b) What are the advantages of using gateways? [8+7]
- 4.a) Differentiate between learning bridges and spanning tree bridges.
- b) Write short note on repeaters, hubs and switches. [7+8]
5. How to find shortest path using Dijkstra algorithm? Explain with an example. [15]
- 6.a) Explain about Hierarchical Routing with an example.
- b) What is congestion? Explain about congestion control policies. [8+7]
7. Explain about 3-way handshake mechanism for connection establishment and connection release. [15]
- 8.a) Compare and contrast TCP and UDP Protocols.
- b) Write short note on SSH protocol. [7+8]

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