

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
SEVENTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2018

Course Code: EC407

Course Name: COMPUTER COMMUNICATION

Max. Marks: 100

Duration: 3 Hours

PART A

Answer any two full questions, each carries 15 marks.

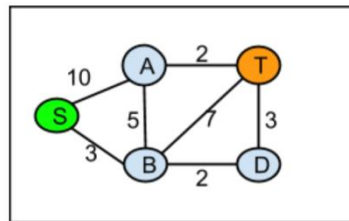
Marks

- 1 a) Compare any three physical topologies used in computer networks. (7)
- b) What is the difference between OSI and TCP/IP models? (8)
- 2 a) Discuss 802.3 MAC frame format. Mention the restrictions imposed on minimum and maximum lengths of 802.3 frame. (2+4)
- b) Explain in details i) stop and wait ARQ (9)
 ii) Go – back – N ARQ
 iii) Selective repeat protocol
- 3 a) What are the different framing methods? Compare and contrast bit stuffing and byte stuffing with frame structures. (4+4)
- b) Explain with flow diagram how collision is avoided in CSMA method. Compare and contrast CSMA/CD with CSMA/CA. (7)

PART B

Answer any two full questions, each carries 15 marks.

- 4 a) Explain subnetting and supernetting. How do the subnet mask and supernet mask differ from a default mask in classful addressing? (10)
- b) Explain IPv4 and IPv6 datagram formats (5)
- 5 a) Explain RARP and its packet format. (5)
- b) List the classes in classful addressing and give examples for each class. (4+6)
 Also find the netid and the hostid of the following IP addresses:
 - a. 114.34.2.8
 - b. 132.56.8.6
 - c. 208.34.54.12
- 6 a) List the differences between distance vector and link state routing protocols. (5)
- b) Prepare a routing table using the distance vector algorithm to the destination T. (10)
 Also update the table for the link breakage between B and D as shown in figure.



PART C

Answer any two full questions, each carries 20 marks.

- 7 a) Why TCP is called as connection oriented reliable transport layer protocol? (6)
Discuss.
- b) What are the differences between the services provided by TCP and UDP? (6)
- c) Explain congestion control measures used in the transport layer. (8)
- 8 a) Explain the various methods used in transport layer to overcome the limitations (7)
of the network layer.
- b) With the help of diagrams, explain the various scheduling methods to improve (7)
the QoS in a network.
- c) Write short notes on i)SNMP ii)POP3 (6)
- 9 a) Discuss in detail the different attacks in data networks. (8)
- b) Explain the various security services provided on the network? (8)
- c) Explain the services provided by SSL protocol. (4)
