Faculty of SCT
1st Semester - 2nd year / 2016
Computer Networks & Applications.

Part B

Number of questions: Two (02)
Answer all questions
Mark allocation: 60

1.

a. Explain Forward Error Correction (FEC) and Backward Error Correction (BEC) using diagrams. (8 mark)

b. Automatic Repeat Request (ARQ) method is used as an error correction method. Illustrate with suitable examples. (5 mark)

c. Briefly explain sliding window mechanism using suitable examples. (6 mark)

d. What is meant by 'Clock Recovery' in data transmission? (3 mark)

e. List advantages and disadvantages of virtual circuit and datagram approach in packet switching. (8 mark)

2.

a. Cyclic Redundancy Check (CRC) is one of the error detection mechanisms. If the data to be transmitted is 100100 and the divisor is 1101.

i. Show the Frame Check Sequence (FCS) is 001. (4 mark)

ii. What is the bit stream that is transmitted? (3 mark)

iii. If the received bit stream is 100100001, show that there are no errors in the received bit pattern. (5 mark)

b. What is the use of 'time out value' in stop-and-wait (idle ARQ) method? (3 mark)

c. Briefly explain three (03) guided media types by giving two (02) characteristics for each type. (5 mark)

d. What is RARP? (5 mark)

e. Describe 'Circuit Switching'. (5 mark)

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