



UNIVERSITY OF NORTH BENGAL
BCA Honours 4th Semester Examination, 2021

CC8-BACHELOR OF COMPUTER APPLICATION (41)

COMPUTER NETWORKS

Full Marks: 60

ASSIGNMENT

The figures in the margin indicate full marks.

Answer any *three* questions from the following 20×3 = 60

1. Explain OSI reference model. 20
2. What is network topology? Discuss different types of topology used in computer networks with their advantages and disadvantages. 20
3. (a) Given a 10 bit sequence 1001010110 and a divisor 1011. Find the CRC. 10
(b) Explain how selective repeat for sliding window protocols works. Explain Go-Back-N ARQ and Stop-and-Wait ARQ. 10
4. Discuss the working principles of circuit switching, message switching and packet switching. What is multiplexing? Why it is necessary in data communication? 15+2+3
5. Explain CSMA-CD protocol. What are the main functions of repeater, hub, switches, bridge and router? 10+10

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