



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 3rd Semester Examination, 2023-24

CMSACOR07T-COMPUTER SCIENCE (CC7)

COMPUTER NETWORKS

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

GROUP-A

1. Answer any *four* questions from the following: 2×4 = 8
- (a) What is burst error?
 - (b) Why do we need port addresses?
 - ✓(c) Differentiate between baseband and broadband transmission.
 - ✓(d) Why is HTTPS considered to be more secure than HTTP?
 - ✓(e) What kind of error is undetectable by checksum?
 - ✓(f) What is Jitter?
 - ✓(g) What is the name of SNR for a noiseless channel?
 - (h) How throughput is different from bandwidth in data communication?

GROUP-B

Answer any *four* questions from the following 8×4 = 32

2. (a) Explain the frame format of 802.11 standards. 5+3
 (b) Explain the differences between 10Base2 and 10Base5 Ethernet.
3. ✓(a) Distinguish between TCP/IP and OSI Model. 4+4
 ✓(b) Describe the working principle of Carrier Sense Multiple Access with Collision Detection (CSMA/CD).
4. ✓(a) What are the drawbacks of stop and wait protocol? 2+4+2
 ✓(b) Explain the Hamming codes in detail.
 ✓(c) What are the differences between broad casting and multicasting?
5. Explain the architecture of ISDN. 8
6. (a) Compare Static and Dynamic routing table. 2+6
 (b) Describe Distance Vector Routing Algorithm. Specify how routers exchange and update their distance vectors.
7. ✓ Write short notes (any *two*): 4+4
 - (a) ARPANET
 - ✓(b) Error Correction
 - ✓(c) Mesh Topology.

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