



K. K. Wagh Institute of Engineering Education & Research, Nashik
(An Autonomous Institute From A.Y. 2022-23)

SUMMER-2024	
Exam Seat No.:	
Academic Year:2023-2024	Semester:III
Class:SY	Program:B.Tech
Branch Code:ADS	Pattern:2022
Name of Course:Computer Networks	Course Code:ADS222002
Max. Marks:60	Duration:2.30 Hrs.

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 02 pages.
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.

Question No. 1 Attempt following Question

- 1 **Explain OSI Model in detail with diagram** (6) CO1

Question No. 2 Attempt following Question

- 2 **Explain SNMP Protocol in detail.** (6) CO2

Question No. 3 Attempt following Question

- 3.a) **Draw and Explain SCTP Protocol Packet Format** (6) CO3

OR

- 3.b) **Explain Congestion Control in detail** (6) CO3

- 3.c) **Classify UDP and TCP Protocols.** (5) CO3

OR

- 3.d) **Explain Connection establishment in TCP.** (5) CO3

- 3.e) **Draw and explain flow control and buffering.** (5) CO3

OR

- 3.f) **State and explain Transport Layer responsibilities.** (5) CO3

Question No. 4 Attempt following Question

- 4.a) **Explain ARP protocol in detail.** (6) CO4

OR

4.b) **Explain Static and Dynamic Routing.** (6) CO4

4.c) **Discuss IPv4 and IPv6.** (5) CO4

OR

4.d) **Explain Subnetting with examples.** (5) CO4

4.e) **Describe CIDR in detail.** (5) CO4

OR

4.f) **Describe Mobile IP with example.** (5) CO4

Question No. 5 Attempt following Question

5.a) **Sketch and label Sliding window protocol with explanation.** (6) CO4

OR

5.b) **Demonstrate services of Data Link Layer.** (6) CO4

5.c) **Discuss CSMA/CD in detail.** (5) CO4

OR

5.d) **Discuss Pure ALOHA and Slotted ALOHA.** (5) CO4

5.e) **Discuss comparison between CSMA/CD and CSMA/CA** (5) CO4

OR

5.f) **Explain Binary Exponential Back-off Algorithm.** (5) CO4

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