

2025

M.Sc. 3rd Semester Examination
COMPUTER SCIENCE

Paper : COS - 301
(Advanced Networking)

Full Marks : 25

Time : One Hour

The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.

Group - A

Answer any *two* questions : $2 \times 2 = 4$

1. What is the primary goal of Mobile IP?
2. Differentiate between a Wireless LAN (WLAN) and a Wireless Sensor Network (WSN).
3. What are the key goals of routing in a computer network?
4. What is an Ad-hoc network? Give one example. 1+1

Group - B

Answer any *two* questions : $4 \times 2 = 8$

5. Describe the working of the Dijkstra's Shortest Path Algorithm. 4

P.T.O.

(2)

6. What is Quality of Service (QoS) in networking?
Mention two key parameters used to measure it. 2+2
7. What are the main causes of network congestion?
Describe any one technique for congestion control. 2+2
8. What is the purpose of the Real-time Transport Protocol (RTP)? List the key fields in its packet header. 2+2

Group - C

Answer any *one* question : $8 \times 1 = 8$

9. (a) Describe the Bellman-Ford algorithm used in distance-vector routing.

(b) Explain the concept of Mobile TCP and the challenges it addresses. 4+4
10. (a) Differentiate between Circuit Switching and Packet Switching.

(b) What is a VPN? Briefly explain two common VPN technologies. 4+4

Internal Assessment : 5 marks
