

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2024
(Fifth Semester)

Branch – INFORMATION TECHNOLOGY

COMPUTER NETWORKS

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. Which of the following is NOT a reference model in networking?
(i) OSI Model (ii) TCP/IP Model
(iii) ISO Model (iv) Hybrid Model
2. Which of the following is a common method for error detection in the Data Link Layer?
(i) Packet switching (ii) Cyclic Redundancy Check (CRC)
(iii) Data encapsulation (iv) Frequency modulation
3. Which of the following is a common routing algorithm used in networks?
(i) Cyclic Redundancy Check (ii) Dijkstra's Algorithm
(iii) Carrier Sense Multiple Access (iv) Time Division Multiple Access
4. What is the primary function of the Transport Layer in the OSI model?
(i) To provide end-to-end communication between applications (ii) To manage data transmission over physical media
(iii) To handle routing and forwarding of packets (iv) To establish and maintain network connections
5. What is the primary purpose of Domain Name System?
(i) To route data packets between networks (ii) To convert domain names into IP addresses
(iii) To encrypt email communications (iv) To manage network traffic and bandwidth

SECTION - B (15 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 3 = 15)

6. a) Explain about the Network Hardware.
OR
b) Write short notes on the Network Standardization.
7. a) Explain the Design issues in the data link layer.
OR
b) Discuss about the Sliding window Protocols.
8. a) Write short notes about the Quality of service in the Network Layer.
OR
b) Write about the Network layer design issues.

Cont...

9. a) Explain the Transport Service in detail?
OR
b) Describe the Performance issues in the TCP ?
10. a) Write short notes on Multimedia?
OR
b) Discuss about the Web Security?

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 6 = 30)

11. a) Explain in detail about the Guided Transmission media.
OR
b) Discuss about the Wireless Transmission in brief.
12. a) Explain in detail about the Error Detection and Correction in the data link layer.
OR
b) Summarize the Multiple Access Protocols.
13. a) Categorize the Internetworking in the Network layer.
OR
b) Discuss about the Congestion Control Algorithms in detail.
14. a) Classify the UDP in detail.
OR
b) Discuss about the TCP in brief.
15. a) Analyze the www.
OR
b) Explain about the DNS in detail.

Z-Z-Z

END