

PSG COLLEGE OF ARTS AND SCIENCE

(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2023

(Fifth Semester)

Branch - **COMPUTER SCIENCE WITH DATA ANALYTICS**

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. Identify the first network which was based on TCP/IP protocol.
(i) ARPANET (ii) HUB (iii) Ethernet Card (iv) Router
2. A single channel is shared by multiple signals in a computer network by _____.
(i) Multiplexing (iii) Phase modulation
(ii) Analog modulation (iv) Digital modulation
3. CDC stands for _____.
(i) Cyclic redundancy check (ii) Code redundancy check
(iii) Code Repeat check (iv) Cyclic Repeat Check
4. Which field of ICMPv6 packet header has a provision of minimal integrity level concerning to verification for ICMP messages?
(i) Code (ii) Type (iii) Checksum (iv) Service
5. Which layer is responsible for process to process delivery in a general network model?
(i) Session layer (ii) Data link layer (iii) Transport layer (iv) Network layer

SECTION - B (15 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks

(5 x 3 = 15)

6. a. Write the different uses of Computer Network.
(OR)
b. Differentiate between Connection-Oriented and Connectionless services.
7. a. Explain Microwave and Lightwave Transmission.
(OR)
b. Bring out the various types of Digital Modulation.
8. a. Describe Simplex Protocol for a Noisy Channel.
(OR)
b. Explain Error-Detecting codes.
9. a. Outline the Services provided to the Transport layer.
(OR)
b. Sketch about the IP Version 4 protocol.
10. a. Explain in detail about Flow Control and Buffering.
(OR)
b. Explain the World Wide Web.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

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

11. a. Discuss in detail about OSI Reference Model with Diagram.
(OR)
b. (i) Justify the Service Primitives.
(ii) Summarise the Design Issues for the layers.
12. a. Discuss the Mobile Telephone Systems in detail.
(OR)
b. Compare Magnetic Media and Twisted pair.
13. a. Justify One Bit Sliding Window Protocol.
(OR)
b. Discuss about the Framing in detail.
14. a. Discuss the Importance of IP Addresses.
(OR)
b. Discuss the Shortest Path Routing.
15. a. Elucidate in detail about Domain Name System.
(OR)
b. Highlight the components & working principle of Electronic Mail.

Z-Z-Z

END