

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCA DEGREE EXAMINATION DECEMBER 2024
(Fifth Semester)

Branch – COMPUTER APPLICATIONS

PRINCIPLES OF NETWORKING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 In _____ mode both stations can transmit and receive simultaneously.
(i) Full-duplex (ii) Half-duplex
(iii) Bi-duplex (iv) Fully-duplex
- 2 _____ is a cable that accepts and transports signals in the form of light.
(i) Nerve fiber (ii) Ultraviolet wave
(iii) Infra-red (iv) Optical fiber
- 3 _____ is a bit-oriented protocol for communication over point-to-point and multipoint link.
(i) DDLC (ii) HHLC
(iii) HDLC (iv) HLDC
- 4 A link-layer switch has a _____ used in filtering decisions.
(i) Link (ii) Table
(iii) Model (iv) Structure
- 5 _____ coding assigns shorter codes to symbols that occur more frequently and longer codes to those that occur less frequently.
(i) DNS (ii) Huff-lay
(iii) FTP (iv) Huffman

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Relate Mesh topology with Star topology. Give examples.
OR
b State the importance of Protocol Layering.
- 7 a Sketch the features of Coaxial cables.
OR
b State the characteristics of Microwave propagation.
- 8 a Identify the efficiency of Standard Ethernet.
OR
b Bring out the purpose of Satellite networks.
- 9 a Bring out the differences between Router and Repeater.
OR
b Narrate the advantages of Virtual LAN.
- 10 a Show an example of a Proxy server.
OR
b Classify the purpose of DNS with a neat diagram.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks

(5 x 6 = 30)

- 11 a Compare OSI Model with TCP/IP Model. Give examples.
OR
b Discuss on the Components of Data Communication.
- 12 a Examine the Advantages and Disadvantages of Optical fiber.
OR
b Highlight on the Structure of Packet Switches.
- 13 a Infer the process of Forward error correction. Give examples.
OR
b Trace the process of Ethernet frame with a neat diagram.
- 14 a Explain IP Datagram Packets with a neat diagram.
OR
b Point out the services in the Transport Layer Protocols.
- 15 a Trace in detail on the working of FTP.
OR
b Discuss on the Iterative resolution in Domain Name Space.

Z-Z-Z

END