

(6 pages)

Reg. No. :

Code No. : 8076

Sub. Code : PCAM 53

M.C.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2019.

Fifth Semester

Computer Application — Core

DATA COMMUNICATIONS AND NETWORKS

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — ($10 \times 1 = 10$ marks)

Answer ALL questions.

Choose the correct answer :

1. A computer network permits sharing of _____
- (a) Resources
 - (b) Information
 - (c) Both (a) and (b)
 - (d) None of the above

2. Which topology requires a central controller or hub?
- (a) Mesh
 - (b) Star
 - (c) Bus
 - (d) Ring
3. _____ means that the signal changes its form or shape
- (a) Distortion
 - (b) Noise
 - (c) Attenuation
 - (d) Both (a) and (b)
4. _____ is the process of converting digital data to digital signals
- (a) Line coding
 - (b) Block coding
 - (c) Parallel transmission
 - (d) Delta modulation
5. The most common twisted-pair cable used in communications is referred to as _____
- (a) UTP
 - (b) STP
 - (c) ECP
 - (d) UTTP
6. Transmission media are directly controlled by the _____
- (a) Physical layer
 - (b) Data link layer
 - (c) Network Layer
 - (d) Session layer

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7. How many bits in data unit has changed in single bit error?
- (a) Only 1 bit (b) Two bits
- (c) Three bits (d) Four bits
8. In half duplex mode of a MAC sub layers stations are connected via _____
- (a) Switch (b) HUB
- (c) Bridge (d) Bus
9. The network layer concern with _____
- (a) Bits (b) Frames
- (c) Packets (d) Bytes
10. ICMP is primarily used for _____
- (a) error and diagnostic function
- (b) addressing
- (c) forwarding
- (d) None of these

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PART B — (5 × 5 = 25 marks)

Answer ALL questions by choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Define topology. Explain the types of topology with neat diagram.

Or

- (b) Write short notes on Transport Layer in TCP/IP.

12. (a) Describe about Amplitude Shift Keying.

Or

- (b) Criticize about Block coding.

13. (a) Discuss the Twisted-Pair Cable.

Or

- (b) Write short notes on Microwaves.

14. (a) Explain about Error Detection.

Or

- (b) Describe the multiplexing in point-to-point protocol.

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[P.T.O.]



15. (a) Analyze the Packet Format of IPv6 Protocol.

Or

- (b) Write short notes on Unicast, Multicast and Broadcast.

PART C — (5 × 8 = 40 marks)

Answer ALL questions by choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Define Protocol. Write detailed notes on Layered tasks.

Or

- (b) Demonstrate about OSI Model.

17. (a) Summarize the Transmission Impairment.

Or

- (b) Elucidate the Analog-to-Analog Conversion.

18. (a) Determine the Unguided media – Wireless transmission.

Or

- (b) Explain briefly about Circuit Switched Network.

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19. (a) Illustrate Minimum Hamming Distance.

Or

- (b) Demonstrate about Fast Ethernet.

20. (a) Criticize about IPV6 Addressing.

Or

- (b) Write brief notes on Routing Protocols.

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