

Roll No.

Total Pages : 4

BCA-201

B.C.A. (Second Year) Examination, 2019

COMPUTER COMMUNICATION AND NETWORKING

Paper-I

Time Allowed : Three Hours

Maximum Marks : 100

PART-A

[Marks : 20

Answer all questions (50 words each).

All questions carry equal marks.

PART-B

[Marks : 50

Answer five questions (250 words each), selecting **one** question from each Unit. All questions carry equal marks.

PART-C

[Marks : 30

Answer any **two** questions (300 words each).

All questions carry equal marks.

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P. T. O.

PART-A

1. Answer the following questions :

- (i) List some Wireless Networks available for Data Communication today.
- (ii) What is decibels and Signal strength ?
- (iii) What is CRC error checksum method ? Explain with an example.
- (iv) What is Encoding ? Explain Manchester and differential Manchester with an example bit stream as 01001100011.
- (v) What is Circuit Switching mode of Communication ?
- (vi) What is Space Division switching ?
- (vii) What is the significance/meaning of "802" in IEEE 820 standards ?
- (viii) What is ATM ? Explain few benefits of ATM Technology ?
- (ix) Find the class of the following IP addresses
 - (a) 11110111-11110011 10000111 11011101
 - (b) 10101111 11000000 11110000 00011101
 - (c) 11011111 10110000 00011111 01011101
 - (d) 11101111 11110111 11000111 00011101

- (x) An address space uses the three symbols 0, 1 and 2 to represent addresses. If each address is made of 10 symbols (bits or places), how many addresses are available in this system ?

PART-B

UNIT-I

2. Differentiate between Connection Oriented and Connectionless Services.
3. What is Bandwidth ? Give the Shannon capacity formula with its explanation.

UNIT-II

4. Explain the sliding Window protocol used for Data Communication with an example.
5. Differentiate between Asynchronous and Synchronous mode of Transmission.

UNIT-III

6. What are the four generic components in Public Telecommunications Network ?
7. What is Packet Switching ? What are its advantages as compared to circuit switching ?

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P. T. O.

UNIT-IV

8. What are the difference between L2 and L3 switches?
9. What is FDDI ? Explain few benefits of FDDI technology.
Fiber Distributed Data Net

UNIT-V

10. What is HTTP protocol ? Explain its working in detail.
11. What is IPv6 ? List its advantages. Why we need to replace existing IPv4 with IPv6 ?

PART-C

12. What are the various Design issues for the layers in Networking ?
13. List various Data encoding schemes. Explain any two of them giving suitable example.
14. Explain Time Division Multiplexing.
15. Explain the working of CSMA/CD.
16. Draw and explain all fields of IPv4 Header.