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(20221) Roll No. .....

BCA.-V Sem.

# 18023

## B.C.A. Examination, Dec.-2020

## Computer Networks

### (BCA-503)

*Time : Three Hours ]* *[Maximum Marks : 75*

**Note :** Attempt questions from all Sections as per instructions.

### Section-A

### (Very Short Answer Questions)

**Note :** Answer all the **five** questions. Each question carries **3** marks. Very short answer is required. 3×5=15

1. Enlist the components of data communication.
2. Explain attenuation in a signal.







3. Four channels, each with a 100-KHz band width, are to be multiplexed together, what is the minimum bandwidth of the link if there is a need for a guard band of 10 KHz between the channels to prevent interference?
4. Differentiate gateways & routers.
5. What is connection-less service provided by the transport layer?

### Section-B

### (Short Answer Questions)

**Note :** Attempt any **two** questions out of the following **three** questions. Each question carries **7½** marks. Short answer is required. 7½×2=15

6. Explain any **one** of the following:-
   (a) Ring & star topology.
   (b) Transmission modes.

7. Discuss point-to-point protocol (PPP).

8. Explain the functions of presentation layer.

## Section-C

## (Detailed Answer Questions)

**Note :** Attempt any **three** questions out of the following **five** questions. Each question carries **15** marks. Answer is required in detail. 15×3=45

9. Explain the distance vector routing algorithm with an example.

10. Discuss the different guided medias with the uses.

11. How circuit switching works in a network, explain in detail.

12. Discuss different protocols at application layers.







13. How DTE-DCE interface works? Also discuss the essence of modems. 10+5