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Reg. No.						

## III Semester B.C.A. 5 Degree Examination, March - 2022 DATA COMMUNICATION [SEC]

(Regular)

Time: 2 Hours

Maximum Marks: 40

Instructions to Candidates:

- 1) All sections are Compulsory.
- 2) Draw neat diagram wherever necessary.

## **SECTION-A**

Answer any FIVE of the following.

 $(5 \times 2 = 10)$ 

- 1. a) Mention the applications of computer Networks.
  - b) Differentiate between guided and unguided transmission media.
  - c) Define the term protocol.
  - d) List the functions of data link layer.
  - e) What are CSMA protocols.
  - f) What are Multi access protocols?
  - g) Mention any two topologies used in LANs.

## **SECTION-B**

Answer any FIVE of the following.

 $(5 \times 4 = 20)$ 

- 2. Describe the optical fibre transmission medium with a neat diagram.
- 3. Write a short note on WAN.
- 4. Explain the CRC (Cyclic Redundancy Check )method for error detection.
- 5. Briefly explain the data link layer design issues.
- 6. What is non-persistent CSMA protocol?
- 7. What is channel allocation problem? Give examples.
- 8. Define switching. Briefly explain message switching.

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## **SECTION - C**

Answer any ONE of the following.

 $(1 \times 10 = 10)$ 

- 9. Explain in detail TCP/IP reference model.
- 10. Discuss the selective Repeat Protocol. Mention its advantages compared to Go- Back N protocol.
- 11. Describe the slotted ALOHA protocol for a shared channel.