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**BOARD DIPLOMA EXAMINATION, (C-14)**  
**MARCH/APRIL-2019**  
**DCME - FIFTH SEMESTER EXAMINATION**  
**DATA COMMUNICATION**

Time: 3 Hours

Max.Marks:80

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**PART-A**

**10x3=30M**

**Instructions:** 1) Answer **all** questions. Each question carries **three** marks.  
2) Answer should be brief and straight to the point and shall exceed five simple sentences.

- 1) Write three fundamental characteristics of a data communication.
- 2) List various modes of data transmission.
- 3) Write about external modem.
- 4) Define fundamental frequency.
- 5) Define channel capacity.
- 6) What is a parity bit?
- 7) Define the terms Modulation and Demodulation.
- 8) Write about NRZ-L.
- \* 9) List out the switching network techniques.
- 10) Write a short note on TDM.

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## PART-B

**5x10=50M**

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**Instructions:** 1) Answer any **Five** questions. Each question carries **Ten** marks.

2) Answer should be comprehensive and the criteria for valuation is the content but not the length of the answer.

- 11) Explain the operation of acoustical modem connection to the telephone line.
- 12) Explain wireless propagation-line-of sight Transmission.
- 13) List and explain any three transmission media.
- 14) Differentiate between point-to-multipoint broad casting and point-to-multipoint non-broad casting.
- 15) Explain multi level binary digital-to-digital encoding techniques.
- 16) Explain modulation techniques for transforming analog data into digital signals.
- 17) Explain FDM.
- 18) a) Explain packet switching. 6M  
b) List the advantages of packet switching compared to circuit switching. 4M

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