

**328732(28)**

**B. E. (Seventh Semester) Examination,  
April-May 2019**

**(New Scheme)**

**(Et & T Engg. Branch)**

**COMPUTER NETWORKS**

**Time Allowed : Three hours**

**Maximum Marks : 80**

**Minimum Pass Marks : 28**

*Note : All questions carry equal marks. Part (a) of each question is compulsory. Attempt any two of remaining three in each questions.*

**Unit-I**

- 1. (a) List the layers of the internet model. 2
- (b) Explain in detail the layers of the OSI model. 7

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- (c) What is Line Encoding? Discuss in various types of line encoding techniques. 7
- (d) What are the functions of a DTE? What are the functions of a DCE? Give an example of each. 7

**Unit-II**

- 2. (a) What are types of errors? 2
- (b) Explain GO-BACK-N ARQ. How is it better than stop and wait ARQ? 7
- (c) Discuss the various types of frames and their formats of HDLC. 7
- (d) How does cyclic redundancy check work? Also generate the CRC code for data word of 100100 and the generator polynomial  $x^3 + x^2 + 1$ . 7

**Unit-III**

- 3. (a) Differentiate LLC and MAC. 2
- (b) Explain 802.3 frame format. What access method is used for it? 7

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- (c) What is Persistence Strategy? Explain in detail the different types of persistence strategy. 7
- (d) Explain protocol architecture of IEEE 802.11. 7

**Unit-IV**

- 4. (a) How is a repeater different from an amplifier? 2
- (b) What is internet address? What are the various classes of internet address? 7
- (c) Explain connectionless and connection oriented transport services. 7
- (d) Draw and explain TCP header format. 7

**Unit-V**

- 5. (a) What is DNS? 2
- (b) Explain in detail ATM architecture. 7
- (c) Discuss the ATM layers. 7
- (d) Describe the functioning of SMTP. 7