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FIFTH SEMESTER B.TECH. (ENGINEERING) [14 SCHEME) EXAMINATION, NOVEMBER 2016

CS 14 505—DIGITAL DATA COMMUNICATION

Time: Three Hours

Maximum: 100 Marks

Part A (Short Questions)

- 1. Write a brief outline of transmission media.
- 2. Explain the various network models.
- 3. List the various applications of Synchronous transmission.
- 4. Explain the working of block codes and cyclic codes with examples.
- 5. Explain how a digital transmission is done with an example.
- 6. Write a note on spread spectrum techniques.
- 7. Differentiate between circuit switching and packet switching with examples.
- 8. Write the principle of operation involved in Synchronous protocols.
- 9. Elaborate on the protocols used for noiseless channels.
- 10. List the characteristics of the HDLC Protocol.

 $(8 \times 5 = 40 \text{ marks})$

Part B (Descriptive)

11. Explain in detail about the Addressing techniques in data communications.

Or

- 12. Discuss in detail about Asynchronous transmission and Synchronous transmission.
- 13. Explain in detail about Linear block codes with example.

Or

- 14. Describe about Hamming codes and checksum with examples.
- 15. Explain the working of the Cable TV networks.

Or

- 16. Write about the working of the Telephone networks.
- 17. Discuss in detail about Bit oriented protocol with example.

Or

18. Write in detail about flow control and error control mechanisms with examples.

 $(4 \times 15 = 60 \text{ marks})$