

Communication Engineering

Set-A (1)

- ① Identify and explain the components of a complete data communication system?
- ② Explain the characteristics that the effectiveness of a data communication system depends on?
- ③ What is meant by data communication?
- ④ Difference between digital and analog signal?
- ⑤ Explain a simplified data communication model?
- ⑥ Define bandwidth and spectrum of a signal?
- ⑦ What do u mean by simplex, half-duplex and full duplex?

2 no q-3 no question:

- ① ~~Discuss~~ Discuss different techniques for analog encoding of digital data?
- ② What is throughput?
- ③ How the latency of a link is measured?

④ Define baseline wandering and its effect on a digital communication?

⑤ Why scrambling technique is used?

⑥ Define periodic signal and frequency spectrum?

⑦ What do u mean by attenuation?

⑧ What is the difference between serial and parallel transmission?

⑨ What are bit rate and bit interval? What are their counter parts in analog signal?

⑩ Define phase and periodic signal?

⑪ What do u mean by bandwidth of analog and digital signal? How do they differ?

⑫ What is DC component? Why is this undesirable?

⑬ What is the major problem in using NRZ-~~0~~ encoding?

Set-4

- ① Define block coding and its purpose?
- ② Explain modulation technique for Delta Modulation?
- ③ Advantage and disadvantage of parallel communication?
- ④ Define PCM, PFM and PTM.
- ⑤ Explain Pulse code modulation process with block diagram?
- ⑥ Describe the Q-PSK method with constellation diagram?
- ⑦ What is modulation? Purpose of carrier signal in modulation?
- ⑧ What is differential PCM? Why DM is used in voice transmission?

set-5 & 6

- ① Difference between synchronous and statistical tdm?
- ② What is multiplexing?
- ③ Describe the process cyclic redundancy
- ④ check?
- ④ Explain the Frequency Division Multiplexing?
- ⑤ What is the purpose of carrier signal in modulation?
- ⑥ How QAM are related to PSK and ASK.
- ⑦ How does FDM combined multiple signal into one?
- ⑧ Explain PSK and QAM in details.

Set-7

- ① Write short notes on twisted pair cable?
- ② Advantage of optical fiber over twisted pair and coaxial cable?
- ③ What is the purpose of cladding in an optical fiber? State some application of optical fiber?
- ④ What is microwave? Mention some of its characteristics and application.
- ⑤ Which signal are called infrared?
How does sky propagation differ from line of sight propagation?
- ⑥ Explain How data is transmitted through an optical fiber?

set-8 (1 set must)

- ① What do u mean by VSAT? How does it work? explain
- ② What do u mean by active and passive satellite?
- ③ state some application for each type of satellites?
- ④ What is orbit of a satellite? which type of orbit does a GEO satellite have? verify your answer.
- ⑤ What is the purpose of GPS? Explain the triangulation principle that is used by GPS.
- ⑥ What is satellite communication?
- ⑦ Describe GEO satellite?
- ⑧ characteristics of VSAT?
- ⑨ What is Geostationary satellite? Find out its orbital height.
- ⑩ Explain different method that are used