



R18 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

Subject code: 206EB

B.Tech VI Semester Regular Examinations, June 2022

PRINCIPLES OF ELECTRONIC COMMUNICATIONS
(Computer Science & Engineering)

Maximum Marks: 70

Date:18.06.2022 Duration: 3 hours

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Why is modulation required?
- 2 Define attenuation.
- 3 Compare AM and FM.
- 4 Define PCM.
- 5 What is meant by MAC address?
- 6 Define the terms LAN and WAN.
- 7 List the merits of satellite communications.
- 8 What is OFC? List its types.
- 9 Name the two primary network topologies used with Zig Bee.
- 10 What is GSM in wireless networking?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Describe the various frequency ranges in the electromagnetic spectrum with its applications. [10]
OR
- 12 A) An amplifier has an input of 3 mV and an output of 5 V. What is the gain in decibels? [5]
B) A filter has a power input of 50mW and an output of 2mW. What is the gain or attenuation? [5]
- 13 Explain the working of QPSK modulator and demodulator. [10]
OR
- 14 Draw the ASK, FSK and PSK waveforms for digital data 10100110. [10]
- 15 Discuss the working of Ethernet and Token ring with neat diagrams. [10]
OR
- 16 Explain the working of Telecommunication System with neat diagram. [10]
- 17 Explain the block diagram of optical fiber communication system with transmitter and a receiver. [10]
OR
- 18 Discuss the elements of satellite communication systems? Explain each with a suitable block diagram. [10]
- 19 Describe the digital cellular land mobile systems and the limitations of AMPS standard. [10]
OR
- 20 Write the features, benefits, applications, and operation of the wireless technologies WiMAX and ultrawideband (UWB). [10]