



Regulation R18

Subject code:206EB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech VI Semester Supplementary Examinations, January 2023

PRINCIPLES OF ELECTRONIC COMMUNICATIONS
(CSE)

Maximum Marks: 70

10-01-2023

Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 What is meant by multiplexing and write its applications?
- 2 Define Frequency & Wavelength? Indicate them with figures?
- 3 Define Amplitude modulation?
- 4 What are the advantages of digital communications?
- 5 Write about data rate used in caller ID.
- 6 What is the main purpose of a LAN? What is the upper limit on the number of users on a LAN?
- 7 What is meant by angle of inclination?
- 8 Define what is meant by bandwidth as it applies to fiber optic cable.
- 9 Write the Multiple Access in cellphone technology.
- 10 What are the functions of MTSO?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Write short notes on: a) Gain b) Attenuation c) Decibels. [3+3+4]

OR

- 12 Define Modulation and why modulation is used in communication circuits. [10]
- 13 A. Mention advantages of ASK. [5]
B. What do you understand by modulation index? What is its significance? [5]

OR

- 14 A. What is the need for amplitude limiter in FM receiver? Explain in detail. [5]
B. What are the salient features of broadcast radio receivers? Explain in detail. [5]
- 15 A. Explain about paging systems? [5]
B. State the general operation of a cordless telephone. [5]

OR

- 16 Explain the working of Token ring with neat diagram. [10]
- 17 Explain briefly about the transmitters and receivers used in satellite earth station? [10]

OR

18 Explain about free space optical communication system. [5]

Distinguish between step index fiber and graded index fiber. [5]

19 Discuss AMPS block diagram? Explain the AMPS transmitter and receiver sections? [10]

OR

20 A. Detail notes about GSM – system overview, physical and logical channels. [5]

B. Explain why IEEE 802.16 is a MAN technology. [5]