



R18 Regulation

Subject code:206FA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, December 2024

Principles of Electronic Communications (IT)

Maximum Marks: 70

Date:07.01.2025

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)		CO	Bloom Tx
1	Define modulation.	1	L1
2	What is meant by multiplexing and write its applications?	1	L1
3	Define Phase modulation?	2	L1
4	Define base band transmission.	2	L1
5	Write the operation of a bridge?	3	L1
6	What is meant by angle of inclination?	3	L1
7	Define ascending orbit and descending orbit.	4	L1
8	State the two main disadvantages of fiber optical cable.	4	L1
9	Define PAN and WAN.	5	L1
10	What are the functions of Mobile Station?	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
11	Draw and describe the various frequency ranges in the electromagnetic spectrum with its applications. [10M]	1	L2
OR			
12	A) An amplifier has an input of 3mv and an output of 5V. What is the gain in decibels? [5M] B) Explain the concept of frequency translation with suitable example. [5M]	1	L2
13	What is the need for amplitudes limits in FM receiver? Explain in detail. [10M]	2	L2
OR			
14	A) Discuss about the spectra of PWM and PPM signals. [5M] B) Compare the characteristics of AM with FM. [5M]	2	L2
15	A) Explain the operation of a paging system using a block diagram. [5M] B) State the general operation of a cordless telephone. [5M]	3	L2
OR			

16	Discuss about Ethernet LANs in detail. [10M]	3	L2
17	A) Explain about satellite sub systems. [5M] B) Write some applications of sub systems. [5M]	4	L2
	OR		
18	Explain about fiber optic communication system and write down the applications? [10M]	4	L2
19	Draw the block diagram of a RFID tag and explain. [10M]	5	L2
	OR		
20	Write short notes on a) RFID communication b) UWB [5+5]M	5	L2