R18 Regulation *Subject code:2O6FA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, May 2025

PRINCIPLES OF ELECTRONIC COMMUNICATIONS

(IT)

Maximum Marks: 70 Date: 25.06.2025 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.
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)		Marks	CO	BTL
1	Define modulation.	2M	1	L1
2	Define Frequency and Wavelength.	2M	1	L1
3	Define Phase modulation?	2M	2	L1
4	Define ASK and PSK.	2M	2	L1
5	Define Amplitude modulation.	2M	3	L1
6	Write about local loop in telephones?	2M	3	L1
7	What is the name of the centre of gravity of the earth?	2M	4	L1
8	What is the major application of fiber-optic cable?	2M	4	L1
9	Write about infrared wireless technology?	2M	5	L1
10	What is handoff?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Write short notes on a) Gain b) Attenuation c) Decibels	10M	1	L2
	OR			
12	a) An amplifier has an input of 3mv and an output of 5v.What is the gain in decibels? b) Explain the concept of frequency translation with suitable example.	5M 5M	1	L2
13	Draw the block diagram of digital communication system. Explain each block.	10M	2	L2
	OR			
14	a) Explain the basic principle of frequency modulation. Also explain a method to generate FM signal. b) Explain a method to demodulate AM signal.	5M 5M	2	L2
15	a) Explain about electronic telephones? b) Describe internet telephony?	5M 5M	3	L2
	OR			
16	Discuss briefly about internet hardware.	10M	3	L2

17	a) Explain what is meant by satellite altitude and briefly describe forms of altitude control. b) Write about telemetry and control subsystems?	5M 5M	4	L2
	OR			
18	a) Explain about free space optical communication system. b) Distinguish between step index fibre and graded index fibre.	5M 5M	4	L2
19	Discuss AMPS block diagram? Explain the AMPS transmitter and receiver sections?	10M	5	L2
	OR			
20	Write short notes on a) RFID Communication b)UWB	5M 5M	5	L2

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