Regulation R17 *Subject code: 1O8FA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Year II Semester Supplementary Examinations, June 2022

Principles of Electronics and Communication

(Information Technology)

Maximum Marks: 70 Date: 20.06.2022 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 are the basic elements of the communication systems?
2 What is Modulation?
3 Classify the Communication system based on nature.
4 Define sampling and Aliasing.
5 Define ringer, switch hook
6 What is a Network? Write basic types of Networks.
7 Explain uplink and Downlink with diagram.
8 Define Reflection and Refraction
9 What is CDMA?
10 What is PAN and Bluetooth?

Part-B

Answer All the following questions. (5X10M=50Marks)

11 What is Need for Modulation? Explain 10M

OR

12 A. Explain Communication system with block diagram. 5M
B. What is Frequency Translation. Explain 5M

13 A. What is Amplitude Modulation. Explain AM Envelop. 5M
B. Draw the Block diagram of High-level Transmitter and Low-Level Transmitter. Explain 5M

OR

14 A. What is Frequency Modulation? Write the advantages of FM over AM. 5M
B. What all the types of Pulse Modulation. Explain with waveforms. 5M

15 A. What is the Telecommunication System? Explain Local Loop. 5M
B. Draw the block diagram of the Basic Telephone system and explain each block. 5M

OR

16 A. What is Network Topology? Explain different types of Topologies. 5M
B. What is a cable? Explain types of coaxial cables. 5M

17 What are Geosynchronous orbits. Explain tracking and navigation by latitude and longitude. 10M

OR

18 A. Explain Optical Communication in Free space with figure. 5M

B. Why we are using Fiber optic cables. Write the benefits and applications over coaxial cables. 5M

19 A. What is AMPS? Explain with a block diagram. 5M

B. What is the basic concept of Cellular telephone system? 5M

OR

20 A. Explain Zig Bee and Mesh Wireless Networks. 5M

B. Draw a general Block diagram of Remote control Transmitter. Explain 5M