

[Nov-23]

GITAM (Deemed to be University)
[EECE2141]
GST/GSS/GSB/GSHS Degree Examination

III Semester

TELECOMMUNICATIONS FOR SOCIETY

(Effective for the admitted batch 2021-22 AB)

Time: 2 Hours

Max. Marks: 30

Instructions: All parts of the unit must be answered in one place only.

Section-A

1. Answer all Questions: **(5×1=05)**

- a) What are the four frequency ranges used by cordless telephones and mention the type of modulation is used?
- b) List the technologies used in 2.5G cell phone systems.
- c) What is the primary application of Bluetooth wireless technology?
- d) What is dispersion in Fiber-optic cables?
- e) What is the purpose of a satellite ground station?

Section-B

Answer the following: **(5×5=25)**

UNIT-I

2. Explain Basic telephone system and local loop.

OR

3. Explain the terms Ringer and switch hook.

UNIT-II

4. Analyze 3G cell phone systems.

OR

5. Draw Direct conversion receiver and explain briefly.

UNIT-III

6. Analyze Zigbee network topologies.

OR

7. Explain the working of different types of WLANs.

UNIT-IV

8. Draw and explain the block diagram of optical communication system.

OR

9. Write down the advantages of optical fiber cables over conventional cables.

UNIT-V

10. Draw and explain satellite transponder.

OR

11. A satellite earth station is to be located at longitude 95° west, latitude 30° north. The satellite is located at 121° west longitudes in geosynchronous orbit. Determine the approximate azimuth and elevation settings for the antenna.

[IIS/123]