[Apr-24]

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

II/IV Semester

TELECOMMUNICATIONS FOR SOCIETY

(Effective from the admitted batch 2021-22)

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=5)**

   a) Explain the concept of VoIP (Voice over IP) and its applications.

   b) Explain in brief about cellular telephone systems

   c) Discuss the advantages and limitations of infrared wireless communication.

   d) Define optical communication and its basic principles.

   e) Define satellite communication and its key components.

Section-B

Answer the following: **(5×5=25)**

UNIT-I

2. Compare and contrast the features and functionalities of traditional telephone systems and Internet telephony (VoIP). Evaluate the advantages and disadvantages of each system in terms of cost, quality, and reliability.

OR

3. Analyze the impact of telecommunication systems on global connectivity and communication.

UNIT-II

4. Compare and contrast the performance of different generations of cellular technologies (2G, 3G, and 4G).

OR

5. Explain the role of base stations and small cells in cellular networks.

UNIT-III

6. Explain the working principle of ZigBee and mesh wireless networks.

OR

7. Compare and contrast WiMAX and traditional mobile broadband technologies.

UNIT-IV

8. Analyze the advantages of optical communication over traditional copper-based systems.

OR

9. Discuss the concept of wavelength-division multiplexing (WDM) in optical networks.

UNIT-V

10. Investigate the role of satellite communication in disaster management and emergency response.

OR

11. Describe the advantages of satellite communication over terrestrial communication systems.