

School of Engineering

**B.TECH Electronics and Communication Engineering in Artificial Intelligence and Machine
Semester End Examination - Jun 2024**

**Duration : 180 Minutes
Max Marks : 100**

Sem VI - G2UC602T - Advanced Communication Systems

General Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

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|-----|---|--------|
| 1) | What are the parameters of digital communication? | K1(2) |
| 2) | Explain the principles of Homodyne and heterodyne detection. | K2(4) |
| 3) | Outline different Designing parameters of analog and digital communication systems. | K2(6) |
| 4) | Make use of block diagram of DPSK generator with waveforms to explain it. | K3(9) |
| 5) | Develop an advanced modulation scheme for wireless networks. | K3(9) |
| 6) | Interpret the principles of multipath fading and how it affects signal quality. | K5(10) |
| 7) | Examine the architecture of WIMAX in details with suitable diagram. | K4(12) |
| 8) | Determine different mathematical models of communication systems | K5(15) |
| 9) | Access WIMAX technique in wireless communication with respect to 3 G. | K5(15) |
| 10) | Develop an advanced modulation and coding scheme for next-generation wireless networks. | K6(18) |