

QP CODE 2100550202

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DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – DECEMBER 2023

Semester: X

055CS102 WIRELESS COMMUNICATION

Time: 3:00 Hours

Max. Marks: 100

Answer any FIVE Questions (5 x 20 = 100 Marks)

1. a) Explain briefly about two ray propagation model. (10 Marks)
b) What is the need for link calculation? Explain with suitable example. (10 Marks)
2. a) Brief about the Time Division Multiple Access (TDMA) technique. (10 Marks)
b) Brief about the Code Division Multiple Access (CDMA) technique. (10 Marks)
3. a) Briefly explain the structure of a wireless communication link. (10 Marks)
b) Describe with neat diagram, the modulation technique of OQPSK and its advantage. (10 Marks)
4. a) Explain about adaptive equalizers. (10 Marks)
b) Explain in detail about linear and nonlinear equalizer. (10 Marks)
5. a) What is meant by MIMO systems? Explain the system model with necessary diagrams. (10 Marks)
b) Describe the concepts of pre-coding. (10 Marks)
6. a) Explain in detail about types of Small Scale Fading. (10 Marks)
b) Distinguish fast fading and slow fading in wireless channel and explain in detail. (10 Marks)
7. a) What are the major difference between TDMA, FDMA and CDMA? (10 Marks)
b) Discuss in detail about cellular concept and frequency reuse. (10 Marks)