



Department of Information Technology

Vision: To Visualize the creation of skilled, proficient IT professionals to meet current challenges.

Mission:

- To encourage young minds for training & entrepreneurship.
- To convey standard education with rapidly changing environment with ethical values.
- To provide an environment where students can continuously learn, apply & communicate knowledge.

Name of Program: - Diploma in Information Technology **Date:-**

Course Title: - Wireless and Mobile Network (22622) - Sem VI (2022 -23)

Course Outcome:

- a) Select cellular Mobile system standard.
- b) Maintain wireless network Technologies.
- c) Maintain wireless mobile application.
- d) Interpret the components of WLL Applications.
- e) Maintain Adhoc and wireless sensor network.

Chapter: 1. Basics of PCS and GSM (CO604.1)

Assignment 1

1. List any two functions of HLR and VLR
2. List the supplementary services offered in GSM.
3. Define the term: i) Routing Area ii) Location Area.
4. Define roaming.
5. Which are the different types of areas in GSM.
6. Draw the block diagram for the architecture of PCS and explain.
7. State and explain GSM channel types
8. Explain the signal processing in GSM.
9. Draw and explain GSM architecture.
10. Describe call processing in GSM.

Last Date of Submission:-

Assign by: - Mrs. Namrata Thakur (TYIF)



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Chapter: 2 GPRS and Mobile Data Communication (CO604.2)

Assignment 2

1. Explain the architecture of GPRS.
2. State the advantages, disadvantages and application of GPRS.
3. Give the logical channels in GPRS.
4. State the advantages, disadvantages and application of GPRS.
5. Give the logical channels in GPRS.
6. Explain WLAN in detail.
7. Explain Bluetooth technology.
8. Explain the block diagram of RFID.
9. Explain Bluetooth technology.
10. Explain home and foreign agent.

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Chapter: 3 Wireless Application on Protocol and 3G Mobile Services (CO604.3)

Assignment 3

1. Explain mobile internet standard.
2. Draw 4G architecture and state its applications.
3. Describe the Wireless Application Protocol.
4. Describe the Wireless Markup Language.
5. Explain Quality services in 3G network.
6. Explain the UMTS architecture.
7. Explain the features of 4G technology.
8. Explain the features of VoLTE technology.
9. Explain the features of 5G technology.
10. Explain the W-CDMA.

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Chapter: 4 WLL Signal Encoding Techniques and Spread Spectrum Modulation (CO604.4)

Assignment 4

1. Explain bit rate and baud rate.
2. Explain Quantizing noise.
3. Explain the requirements of line code.
4. Explain the pulse code modulation
5. What is line coding? Explain Line coding techniques
6. Explain the delta modulation system.
7. Explain types of Digital Carrier modulation (ASK, FSK & PSK).
8. Explain the DS-SS system with the help of suitable block diagram.
9. Explain the FH-SS system with the help of suitable block diagram.
10. Explain DPCM transmitter & receiver

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Chapter: 5 Mobile Ad-hoc networks and Wireless Sensor Networks (CO604.5)

Assignment 5

1. Give applications of MANET.
2. Explain architecture of MANET.
3. State the characteristic of WSN and requirement mechanisms.
4. Explain Sensor node with block diagram.
5. Explain protocol layer architecture of WSN.
6. Explain clustering wireless sensor network
7. Explain energy efficiency in WSN
8. Explain Mesh networking
9. Compare WSN and ad-hoc
10. Explain architecture of IOT.

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