

- Q.30 Shows that how 5G is better than 4G?
 - Q.31 Explain in brief about selection diversity.
 - Q.32 Describe shadowing margin.
 - Q.33 What are the different type of path loss? Explain in brief.
 - Q.34 What are the different type of path loss? Explain in brief.
 - Q.35 Write the function of VLR

SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)

- Q.36 Explain the evolution of cellular system.

Q.37 What is CDMA? Explain in detail.

Q.38 Write short note on following

a) Noise figure b) Shadowing

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202431

**3rd Sem.
Branch : Mechatronics
Sub.: Mobile & Wireless Communication**

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 OFDM is a technique for 3G communication

a) True b) False

Q.2 Which of the following technology does not use MIMO?

a) 4G b) Wi-fi

c) EDGE d) AMPS

Q.3 LTE is a 2G technology.

a) True b) False

Q.4 MIMO is a smart antenna.

a) True b) False

Q.5 The atmosphere does not affect the performance of the antenna and transmission path.

a) True b) False

- Q.6 The 1G cellular system is general use _____.
 a) TDMA b) CDMA
 c) FDMA d) All of the above
- Q.7 Cells are always hexagonal in shape.
 a) True b) False
- Q.8 The forward band in FDD provide traffic from the mobile to base station.
 a) True b) False
- Q.9 Which of the following is not a standard of 3G?
 a) UMTS b) CDMA2000
 c) TD-SDMA d) LTE
- Q.10 Interference on voice channels cause _____.
 a) Queuing b) Crosstalk
 c) Missed Calls d) None

SECTION-B

Note: Objective type questions. All questions are compulsory. **(10x1=10)**

- Q.11 Write the formula for co-Channel reuse ratio _____.
 Q.12 What is microcell.
 Q.13 Write full form of WCDMA.

- Q.14 Full form of MIN _____.
 Q.15 BSC stands for _____.
 Q.16 Define a cluster.
 Q.17 Define Cell area.
 Q.18 There are two types of fading ____ and _____.
 Q.19 Define transceiver.
 Q.20 Frequency reuse factor is inversely proportional to the number of cells in the cluster. (True/False)

SECTION-C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 Explain in brief 4G Technology.
 Q.22 Give the difference between MIMO and CDMA.
 Q.23 Explain the concept of fading.
 Q.24 Which factors affect propagation of signal? Explain them in detail.
 Q.25 What are the advantages of wireless communication?
 Q.26 Explain cellular concept.
 Q.27 Write short note on Co-Channel interference.
 Q.28 Compare 2G and 3G.
 Q.29 List LTE Features.