

- Q.25 Compare CDMA & GSM systems.
- Q.26 Write short note on Wi-Fi.
- Q.27 Compare 1G & 2G systems.
- Q.28 What is LTE? Explain its features.
- Q.29 Explain hot & cold testing method for phone repairing.
- Q.30 Define EM waves & explain electromagnetic frequency spectrum.
- Q.31 Discuss the power control methods for reducing interference.
- Q.32 Write the feature of LTE.
- Q.33 Define Co-channel & adjusting channel interference
- Q.34 Write short note on GPS.
- Q.35 Write steps to assemble a mobile phone.

#### SECTION-D

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

- Q.36 What is multiple access? Name different multiple access techniques and compare in tabular form. (1+2+7)
- Q.37 Draw & Explain the GSM System Architecture.
- Q.38 Write short note on (5+5)
- a) UMTS                      b) Cell spitting

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**6th Sem / Eltx**

**Subject:- Wireless & Mobile Communication / Digital & Data Communication**

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 VHF are in the range of
- a) 300 MHz to 3000 MHz
- b) 30 KHz to 300 KHz
- c) 30 MHz to 300 MHz
- d) 300 MHz to 3 GHz
- Q.2 The main reasons for using cellular systems are
- a) Increased Capacity    b) Reduced Power use
- c) Large coverage area    d) All of above
- Q.3 UMTS is also known as
- a) AMPS                      b) GPRS
- c) IS-95                      d) W-CDMA
- Q.4 Relation between frequency & wavelength is
- a) Wavelength = c/f    b) Wavelength = cf
- c) Wavelength = f/c    d) None of the above

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- Q.5 AMPS is a \_\_\_\_\_ generation wireless system
- a) 1<sup>st</sup> Generation      b) 2<sup>nd</sup> Generation  
c) 3<sup>rd</sup> Generation      d) 4<sup>th</sup> Generation
- Q.6 \_\_\_\_\_ multiple access technique is used in GSM.
- a) FDMA                      b) TDMA  
c) CDMA                      d) SDMA
- Q.7 The \_\_\_\_\_ is the heart of mobile phone system.
- a) PCB (Printed Circuit Board)  
b) Battery  
c) Liquid circuit display  
d) Camera
- Q.8 Large Geographic area split into smaller unit with a base station covering a smaller area is known as
- a) Cluster                      b) Cell  
c) Mobile Station      d) None
- Q.9 \_\_\_\_\_ was the world's first cellular system that made use of digital modulation
- a) ETACS                      b) CDMA  
c) AMPS                      d) GSM
- Q.10 TDMA is the division of
- a) Time                      b) Frequency  
c) Phase                      d) Amplitude

## SECTION-B

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

- Q.11 Data rate in 4G cellular system is \_\_\_\_\_.
- Q.12 Large cells are called as \_\_\_\_\_ cells & small cells are called as \_\_\_\_\_ cells.
- Q.13 Give two advantage of Wireless Communication.
- Q.14 CDMA is standardized as \_\_\_\_\_.
- Q.15 GPRS stands for \_\_\_\_\_.
- Q.16 Bluetooth operates in \_\_\_\_\_ frequency range.
- Q.17 EDGE stands for \_\_\_\_\_.
- Q.18 What happens if VCO is faulty \_\_\_\_\_.
- Q.19 Define Co-channel cells.
- Q.20 Expand SIM & MIN.

## SECTION-C

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

- Q.21 Write a short note on fading.
- Q.22 Define frequency reuse concept and write the formula for co-channel reuse ratio.
- Q.23 Explain the fundamental concept of cellular telephone system.
- Q.24 Write short note on W-CDMA.