

- 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)



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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)  $\text{Wavelength} = c/f$  b)  $\text{Wavelength} = cf$
  - c)  $\text{Wavelength} = f/c$  d) None of the above

- 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.