**Time:  1hr**                                                                                                    **Full marks:20**
**Date:**

1. ***Choose the correct alternative for the following (any five):***                                          **[1x5=5]**

I.   Which of the following technology uses wireless communication mode to exchange data or transfer data between several mobiles in the short-range?
   - a.  Bluetooth technology
   - b.  Ad hoc computing
   - c.  Mobile computing
   - d.  None of the mentioned

II.  Which of the following protocol enables access to the internet from a mobile device?
   - a.  HTTP (Hypertext Transfer Protocol)
   - b.  WAP (Wireless Application Protocol)
   - c.  ISD (International Subscriber Dialing)
   - d.  TCP/IP (Transmission Control Protocol)

III. In mobile computing, HLR is the abbreviation of which the following?
   - a.  Home Live Register
   - b.  House Live Register
   - c.  Home Location Register
   - d.  House Location Register

IV.  The packet mode data transfer service is offered by which of the following protocol?
   - a.  TCP (Transmission Control Protocol)
   - b.  GSM (Global System for Mobile communication)
   - c.  GPRS (General Packet Radio Service)
   - d.  None of the mentioned

V.   What is the full form of SIM?
   - a.  Station Identity Module
   - b.  System Identity Module
   - c.  Subscriber Identity Module
   - d.  None of the above

VI.  What is Mobile communication?
   - a.  Allows to communicate from different locations without the use of physical medium
   - b.  Allows to communicate from different locations with the use of physical medium
   - c.  Allows to communicate from same locations without the use of physical medium
   - d.  Allows to communicate from same locations with the use of physical medium

VII. Which of the following usually stores all user-related data that is also relevant to GSM mobile systems?
   - a.  VLR
   - b.  HMR
   - c.  CMR
   - d.  SIM

VIII. Which of the following is known as one of the responsibilities of mobile Switching Centre (or MSC) in cellular telephone systems?
   - a.  Connection of mobile to PSTN
   - b.  Connection of base station to MSC
   - c.  Connection of mobile to base stations
   - d.  All of the above

*2.Fill in the blanks*                                                                                        *[1x5=5]*

       a. GSM stands for_____
       b. BSS stands for _____
       c. HLR stands for_____
       d. VLR stands for _____
       e. BTS stands for _____
       f. BSC stands for_____
       g. IMSI stands for_____

*3.Answers the following questions (any three)*                                                              *[2x2=4]*

       a. What is the difference between data network and voice network?
       b. What is mobile computing? Advantages and limitation of mobile computing
       c. What is Bluetooth? How is Bluetooth useful in mobile computing?
       d. What is GSM?
       e. What is cell?

*4.Answer the following questions (any one)*                                                                 *[6x1=6]*

       a. Discuss the architecture of a mobile telecommunication system using a suitable schematic diagram.
       b. Explain the different hardware components that are used in a wireless network?
       c. Briefly explain how a call can be setup between two mobile phones?