



## BRAINWARE UNIVERSITY

### Term End Examination 2020 - 21

Programme – Master of Technology in Computer Science & Engineering

Course Name – Mobile Computing

Course Code - PEC-MCS301A

Semester / Year - Semester III

Time allotted : 85 Minutes

Full Marks : 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 70=70

1. (Answer any Seventy)

(i) The frequency band designated for PCS in North America is \_\_\_\_\_.

- |            |            |
|------------|------------|
| a) 700 MHz | b) 600 MHz |
| c) 1.9 GHz | d) 13GHz   |

(ii) AMPS was designed for \_\_\_\_\_.

- |                                 |                 |
|---------------------------------|-----------------|
| a) POTS                         | b) Voice        |
| c) use built into an automobile | d) all of these |

(iii) CDMA technology was invented by \_\_\_\_\_.

- |              |             |
|--------------|-------------|
| a) AT&T      | b) Lucent   |
| c) Bell Labs | d) Qualcomm |

(iv) In GSM, voice channels are called \_\_\_\_\_.

- |                     |                     |
|---------------------|---------------------|
| a) traffic channels | b) voice channels   |
| c) bearer channels  | d) talking channels |

(v) Other things being equal, battery life in a GSM phone should be \_\_\_\_\_.

- |                                 |                                    |
|---------------------------------|------------------------------------|
| a) less than in a TDMA phone    | b) no better than in an AMPS phone |
| c) greater than in a TDMA phone | d) no better than a TDMA phone     |

(vi) It is necessary to send control information on traffic channels in \_\_\_\_\_.

- a) no PCS system
- b) GSM only
- c) TDMA only
- d) both GSM and TDMA

(vii) IMSI stands for \_\_\_\_\_.

- a) Integrated Mobile Subscriber Identification
- b) International Mobile Subscriber Identification
- c) Interim Mobile Subscriber Identification
- d) Intermodulation System Interference

(viii) IS-136 uses \_\_\_\_\_.

- a) frequency hopping
- b) TDMA
- c) CDMA
- d) all of these

(ix) CDMA uses a set of PN sequences that are \_\_\_\_\_.

- a) Common
- b) Unique
- c) Rotating
- d) Orthogonal

(x) GPRS stands for \_\_\_\_\_.

- a) General Packet Repair Service
- b) Graphics Packet Radio Service
- c) General Packet Radio Service
- d) None

(xi) What is the data rate or speed offered by a GPRS connection?

- a) 56-115kbps
- b) 9-256kbps
- c) 64-128kbps
- d) None

(xii) Choose a correct abbreviation below.

- a) SGSN - Serving GPRS Support Node
- b) GGSN - Gateway GPRS Support Node
- c) IP - Internet Protocol
- d) All of these

(xiii) Type-A Mobile Station supports \_\_\_\_\_.

- a) Only Speech
- b) Only Data



(xxi) In IPv4 layer, datagram is of \_\_\_\_\_.

- a) Fixed length
- b) Variable length
- c) Global length
- d) Zero length

(xxii) Which is a link layer protocol?

- a) ARP
- b) TCP
- c) UDP
- d) HTTP

(xxiii) Which protocol is commonly used to retrieve email from a mail server?

- a) FTP
- b) IMAP
- c) HTML
- d) TELNET

(xxiv) You want to implement a mechanism that automates the IP configuration, including IP address, subnet mask, default gateway, and DNS information. Which protocol will you use to accomplish this?

- a) SMTP
- b) SNMP
- c) DHCP
- d) ARP

(xxv) Which of the following is not currently a factor in the development of m-commerce?

- a) Availability of devices
- b) Reluctance of vendors
- c) Bandwidth improvements
- d) Declining prices

(xxvi) This software acts as a bridge between various wireless networks. What type of software is being described?

- a) Wireless middleware
- b) Application middleware
- c) Microbrowser
- d) Mobile client operating system

(xxvii) Length of Port address in TCP/IP is \_\_\_\_\_.

- a) 4bit long
- b) 16bit long
- c) 32bit long
- d) 8bit long

(xxviii) Bluetooth allows the station to define a quality of \_\_\_\_\_.

- a) Time Level
- b) Service Level
- c) Data Level
- d) Segment Level

(xxix) A Bluetooth network is called \_\_\_\_\_.

- a) Wireless Network
- b) WAN
- c) Piconet
- d) LAN

(xxx) Bluetooth network consists of one primary device and up to \_\_\_\_\_.

- a) 5 Devices
- b) 7 Devices
- c) 9 Devices
- d) 11 Devices

(xxxii) Exact range of Bluetooth devices are \_\_\_\_\_.

- a) 10 m
- b) 20 m
- c) 30 m
- d) 40 m

(xxxiii) Range of Bluetooth devices are \_\_\_\_\_.

- a) Low power
- b) High power
- c) No power
- d) Static power

(xxxiv) In Bluetooth LAN, the devices are called \_\_\_\_\_.

- a) Nodes
- b) Gadgets
- c) Piconet
- d) Entity

(xxxv) A Bluetooth LAN by nature, cannot be \_\_\_\_\_.

- a) Small
- b) Large
- c) Thin
- d) Thick

(xxxvi) A Circuit-Switched Network is made of a set of switches connected by physical \_\_\_\_\_.

- a) Links
- b) Media
- c) Nodes
- d) Lines

(xxxvi) Packets of data that is transported by IP is called \_\_\_\_\_.

- a) Datagrams
- b) Frames
- c) Segments
- d) Encapsulate message

(xxxvii) Each channel in Bluetooth layer is of \_\_\_\_\_.

- a) 1 MHz
- b) 2 MHz
- c) 3 MHz
- d) 4 MHz

(xxxviii) L2CAP have specific duty of \_\_\_\_\_.

- a) Multiplexing
- b) quality of service
- c) segmentation and reassembly
- d) All of these

(xxxix) In cellular telephony, Electronic Serial Number (ESN) is unique for each \_\_\_\_\_.

- a) Station
- b) Module
- c) Mobile
- d) Frame

(xl) Classful addressing is replaced with \_\_\_\_\_.

- a) Subclass addressing
- b) Fully occupied addresses
- c) Upper-class addressing
- d) Classless addressing

(xli) An interconnected collection of piconet is called \_\_\_\_\_.

- a) Scatternet
- b) Micronet
- c) Mininet
- d) Multinet

(xlii) Bluetooth is the wireless technology for \_\_\_\_\_.

- a) local area network
- b) personal area network
- c) metropolitan area network
- d) wide area network

(xliii) Unauthorized access of information from a wireless device through a bluetooth connection is called \_\_\_\_\_.

- a) Bluemaking
- b) Bluesnarfing
- c) Bluestring
- d) bluescoping

(xliv) In a piconet, one master device \_\_\_\_\_.

- a) can not be slave
- b) can be slave in another piconet
- c) can be slave in the same piconet
- d) can be master in another piconet

(xlv) A scatternet can have maximum \_\_\_\_\_.

- a) 10 piconets
- b) 20 piconets
- c) 30 piconets
- d) 40 piconets

(xlvi) Asynchronous Transfer Mode (ATM) network is an example of \_\_\_\_\_.

- a) Packet switching network
- b) Datagram Networks
- c) Virtual circuit network
- d) message switched network

(xlvii) VCIs in Frame Relay are called \_\_\_\_\_.

- a) SVC
- b) PCIs
- c) DLCIs.
- d) PVC

(xlviii) ICMP Stands for \_\_\_\_\_.

- a) Internet Connect Message Protocol
- b) Internet Control Message Protocol
- c) International Connect Message Protocol
- d) International Control Message Protocol

(xlix) Parameter that is normally achieved through a trailer added to end of frame is \_\_\_\_\_.

- a) Access Control
- b) Flow Control
- c) Error Control
- d) Physical addressing.

(l) Which of the following has no backward compatibility with 3G Cdma2000?

- a) IS-95
- b) GPRS
- c) IS-95A
- d) IS-95B

(li) Which of the following the first 3G CDMA air interface?

- a) IS-95
- b) IS-95B
- c) Cdma2000 1xRTT
- d) CdmaOne

(lii) How many users are supported by Cdma2000 1X in comparison to 2G CDMA standard?

- a) Half
- b) Twice
- c) Six times
- d) Ten times

(liii) Cdma2000 1xEV was developed by \_\_\_\_\_

- a) Motorola
- b) AT&T Laboratories
- c) Qualcomm
- d) NTT

(liv) What are the two options provided by Cdma2000 1xEV?

- a) Cdma2000 1xRTT, Cdma2000 3Xrtt
- b) Cdma2000 1xEV-DO, Cdma2000 1xEV-DV
- c) Cdma2000 1xEV-DT, Cdma2000 1xEV-DO
- d) Cdma2000 1xRTT, Cdma2000 1xEV-DV

(lv) What is the name of 300 MHz of unlicensed spectrum allocated by FCC in ISM band?

- a) UNII
- b) Unlicensed PCS
- c) Millimetre wave
- d) Bluetooth

(lvi) When calculating the maximum number of users, a limiting factor in FDM is \_\_\_\_\_.

- a) the type of media used
- b) the length of the channel



- c) the bandwidth of each signal                      d) all of these

(lvii) Which of the following statements is true about Java ME

- a) Java ME is a single specifications                      b) Java ME is a family of related specifications  
c) Java ME is a platform for creating applications for the well-established desktop market.                      d) Java ME is a platform for creating server-side enterprise applications

(lviii) What is profile?

- a) A profile defines a set of class libraries available for a wide range of devices                      b) A profile defines a horizontal set of classes that a configuration can use  
c) A profile defines the set of APIs available for a particular family of devices.                      d) A profile is the foundation for a configuration

(lix) The CLDC does not address user interface issues. They are left to be handled by the \_\_\_\_\_.

- a) Foundation profile                      b) Personal profile  
c) Mobile information Device Profile (MIDP)                      d) None

(lx) A Java ME- enabled device

- a) Can support only a single profile                      b) Can support multiple profiles  
c) Both Can support only a single profile & Can support multiple profiles                      d) None

(lxi) In the CDC, user interface issues are handled by the \_\_\_\_\_.

- a) Foundation profile                      b) Personal profile  
c) Mobile information device profile (MIDP)                      d) None

(lxii) The CDC targets devices with \_\_\_\_\_ of total memory available for the

Java platform, including both RAM and flash or ROM

- a) 160 KB
- b) 256KB
- c) 512 KB
- d) 2 MB or more

(lxiii) The MIDP, the maximum length of a record store name is \_\_\_\_\_.

- a) 8 characters
- b) 32 characters
- c) 128 characters
- d) 256 characters

(lxiv) What compilation option should be used when compiling Java ME applications?

- a) Classpath
- b) Bootclasspath
- c) Preverify
- d) All of these

(lxv) A midlet is a Java class that extends the abstract class \_\_\_\_\_.

- a) javax.microedition.MIDlet
- b) javax.microedition.midlet
- c) javax.microedition.midlet.MIDlet
- d) javax.microedition.midlet.midlet

(lxvi) Which one of the following methods of the MIDlet abstract class must be implemented by a midlet?

- a) initApp, startApp
- b) startApp, destroy App
- c) startApp, pauseApp, destroyApp
- d) initApp, startApp, pauseApp, destroyApp

(lxvii) When downloading application descriptors (.jad files) from a web server, the web server must return a MIME type of \_\_\_\_\_.

- a) text/vnd.sun.j2me.midp
- b) text/vnd.sun.j2me.jad
- c) text/vnd.sun.j2me.app-descriptor
- d) text/vnd.sun.j2me.midapp

(lxviii) All MIDP implementations are required to support what image format?

- a) GIF
- b) JPG
- c) BMP
- d) PNG

(lxix) If a midlet needs to receive high-level events from the implementation, which interface should it implement\_\_\_\_\_.

- a) ActionListener
- b) CommandListener
- c) ChoiceListener
- d) WindowsListener

(lxx) Which class would you use to write applications to access low level input events or to issue graphics calls for drawing to the display?

- a) Display
- b) Command
- c) Screen
- d) Canvas