

These are sample MCQs to indicate pattern, may or may not appear in examination

**University of Mumbai**  
**Online Examination 2020**

Program: BE Electronics & Telecommunication Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VIII

Course Code: ECC802 and Course Name: Wireless Networks

Time: 1hour

Max. Marks: 50

**Note to the students:-** All the Questions carry equal marks .

- Q The technology that promises a potentially revolutionary approach to radio communication in WBANs is
- A Infrared
- B Wi-Fi
- C UWB
- D WiMAX
- Q An electrocardiogram (ECG) sensor is for monitoring the activity of
- A Brain
- B Heart
- C Respiration
- D Muscle
- Q An electromyography (EMG) sensor is for monitoring the activity of
- A Brain
- B Muscle
- C Respiration
- D Heart
- Q Usually node communication in WBAN \_\_\_\_\_ is in nature.
- A Duplex
- B Half Duplex
- C Simplex
- D Semi Duplex

Q In \_\_\_\_\_of WBAN,the information handling between the sensors and the sink takes place.

- A on body communication
- B intra-body communication
- C off body communication
- D interbody communication

Q In WBAN----- is used to avoid the transmission to a far node with less power.

- A singlehop communication
- B wired communication
- C direct communication
- D Multihop communication

Q In WBAN, due to the network's proximity to the human body, electromagnetic pollution should be \_\_\_\_\_

- A moderate
- B high
- C extremely low
- D extremely high.

Q The sensors that are implanted in the human body of WBAN required a \_\_\_\_\_

- A memoryless devices
- B long battery lifetime
- C large size battery
- D short battery lifetime

Q Auto-inject insulin through a pump as soon as insulin level of diabetic patient declines is an application of

- A Wireless Basic Area Network
- B Wireless Body Area Network
- C Wire Body Area Network
- D Wireless Body Active Network

Q In WBAN, compared with inductive coupling,RF communication \_\_\_\_\_for communication.

- A dramatically decreases bandwidth
- B dramatically increases bandwidth
- C dramatically decreases power consumption

- D dramatically increases power consumption
- Q Which of the following is not a component of WBAN component
- A Power supply
- B personal server
- C GPS
- D Access points

- Q In WBAN, sampling rate of \_\_\_\_\_ is considered to be sufficient without losing any information.
- A 100–1000 Hz
- B 10–100 Hz
- C 10–100 KHz
- D 1–10 Hz

- Q TCP/IP model does not have
- A Session layer
- B Application layer
- C Network layer
- D Data link layer

- Q Which of the following processes perform on packets and Internetworking by network layer?
- A Error detection
- B Routing
- C encapsulation
- D Error correction

\_\_\_\_\_ occurs when the radio path between the transmitter and receiver is obstructed by a surface that has sharp irregularities (edges)

- Q
- A Deflection
- B Reflection
- C Diffraction
- D Refraction

- Packet-switched communication uses \_\_\_\_\_ of information that use channels only for short periods of time.
- Q
- A short bursts
- B small bursts

- C long bursts
- D large bursts
- Q A peer-to-peer network cannot be
- A Self-organizing
- B Self-healing
- C Ad hoc
- D Permanent

A high-bandwidth wireless technology with transmission speeds in excess of 100 Mbps that can be used for applications such as streaming multimedia from, say, a personal computer to a television

- Q
- A Infrared
- B Ultra-Wideband (UWB)
- C Satellite Radio
- D Propagation Delay

A wireless technology that allows manufacturers to attach tags with antennas and computer chips to goods and then track their movement through radio signals

- Q
- A Wireless Sensor Networks (WSN)
- B Wireless Fidelity (WiFi)
- C Near-Field Communication (NFC)
- D Radio-Frequency Identification (RFID) Technology

- Q ACL stands for
- A Asynchronous connected link
- B Asynchronous communication Link
- C Asynchronous connection link
- D Asynchronous connectionless link

- Q In a piconet, one master device \_\_\_\_\_
- A can be master in another piconet
- B can be slave in the same picone
- C can not be slave
- D can be slave in another piconet

- Q Which of the following topology is not supported by ZigBee
- A Mesh
- B Ring

- C Cluster tree  
D Star  
Q In star topology, communication is established through a single controller called as \_\_\_\_\_  
A End device  
B Co-ordinator  
C Supporter  
D Mediator  
Q Cluster tree network is a special case of \_\_\_\_\_  
A Global Network  
B Hub Network  
C Peer to Peer network  
D Ring Network  
Q \_\_\_\_\_ is a protocol that handles publishing and discovery of services running on Bluetooth stack.  
A Service Investigate Protocol  
B Service Discovery Protocol  
C Service Discovery Protocol  
D Service Connect Protocol  
Q Bluetooth is named after a(n) \_\_\_\_\_ king.  
A Swiss  
B English  
C Danish  
D German  
Q In a piconet, there can be up to \_\_\_\_\_ parked nodes in the network.  
A 255  
B 127  
C 63  
D 511  
Q What is A2DP (advanced audio distribution profile)?  
A a bluetooth profile for streaming audio  
B a bluetooth profile for security  
C a bluetooth profile for streaming video  
D a bluetooth profile for file management  
Q A scatternet can have maximum \_\_\_\_\_

A 40 piconets

B 10 piconets

C 20 piconets

D 30 piconets

Q The device in the piconet whose clock and hopping sequence are used to synchronize all other devices in the piconet is called as \_\_\_\_\_

A Master unit

B Slave unit

C Parked unit

D Active unit

Q A \_\_\_\_\_ medium access control address used to distinguish between units participating in the piconet.

A 8-bit

B 4-bit

C 5-bit

D 3-bit

Q Devices in a piconet which are time-synchronized but do not have MAC addresses are called as \_\_\_\_\_

A Active units

B Master units

C Parked units

D Slave units

Q Which of the following is not a low power state in Bluetooth

A Connected

B Sniff

C Park

D Hold

Q When ZigBee node is powered down, it can wake up and get a packet in around \_\_\_\_\_-.

A 1.5 msec

B 1.5 sec

C 15 msec

D 15 sec

Q In ZigBee, FFD stands for \_\_\_\_\_

A Full Feature Device

B First Feature Device

- C Full Function Device
- D First Function Device
- Q In ZigBee, RFD stands for \_\_\_\_\_
- A Restricted Function Device
- B Reduced Function Device
- C Rectified Function Device
- D Reallocated Function Device
- Q In which of the following mode FFD cannot be operated
- A coordinator
- B Slave
- C PAN coordinator
- D End device
- Q In which of the following Zigbee topology, any device can communicate with any other device as long as they are in range of one another.
- A HUB
- B Peer to Peer
- C Star
- D Cluster tree
- Q UWB stands for \_\_\_\_\_
- A Useful Wide Band
- B Unique Wide Band
- C Ultra Wide Band
- D Uniform Wide Band
- Q Which of the following statements about radio frequency identification (RFID) is not true?
- A RFID systems provide a powerful technology for tracking the movement of goods throughout the supply chain
- B RFID systems use tiny tags with embedded microchips containing data about an item and its location.
- C RFID systems transmit radio signals over long distances.
- D Companies may be required to upgrade hardware and software to accommodate the massive amounts data that are being produced by RFID systems.
- Q RFID stands for \_\_\_\_\_
- A Radio-Frequency Indication
- B Radio-Fault Indication
- C Radio-Frequency Identification
- D Radio-Frequency Interconnection
- Q RFID is also called as \_\_\_\_\_

- A dedicated long range communication
- B deployed short range communication
- C dedicated short range communication.
- D detail short range communication

Q Which of the following is not a type of RFID tag?

- A Passive
- B Partially Passive
- C SemiActive
- D Active

Q Which of the following technology is a good replacement for the BARCODE system?

- A ZigBee
- B Infrared
- C RFID
- D Bluetooth

Q In IEEE 802.11, the addressing mechanism can include up to \_\_\_\_\_ addresses.

- A 1
- B 2
- C 4
- D 6

Q The IEEE 802.11b, uses \_\_\_\_\_.

- A FHSS
- B DSSS
- C OFDM
- D either (a) or (b)

Q The original IEEE 802.11, has a data rate of \_\_\_\_\_ Mbps.

- A 1
- B 2
- C 4
- D 16

Q IEEE 802.11a, has a data rate of \_\_\_\_\_ Mbps.

- A 1
- B 2
- C 6



- D 22
- Q IEEE 802.11g, has a data rate of \_\_\_\_\_ Mbps.
- A 1
- B 2
- C 11
- D 22
- Q The IEEE 802.11a, uses \_\_\_\_\_
- A FHSS
- B DSSS
- C OFDM
- D either (a) or (b)
- Q IEEE 802.11b, has a data rate of \_\_\_\_\_ Mbps.
- A 1
- B 2
- C 5.5
- D 20
- Q \_\_\_\_\_ is an interface between subscribed wired devices and WLL network.
- A Mobile subscriber unit
- B Fixed subscriber unit
- C Wireless Access Network Unit
- D Wired Access Network Unit
- The wireless local loop systems are \_\_\_\_\_  
type of broadband wireless  
networks.
- Q
- A fixed
- B mobile
- C semi-mobile
- D dynamic
- Q IEEE 802.16e standard defines framework for \_\_\_\_\_
- A coexistence with WLAN
- B Multihop relay
- C Air Interface
- D Mobility management

- Wireless high-speed unlicensed metropolitan access network is a specification targeted for license exempt band below \_\_\_\_\_
- Q  
A 11GHz  
B 2.4GHz  
C 5GHz  
D 2GHz
- Q Which of the following statement is not True?  
Wireless metropolitan area network is a promising broadband wireless access technology that provides high-speed, high-bandwidth efficiency.  
A IEEE 802.15 standard is commonly known as WiMAX.  
B The main goal of IEEE 802.16 is to provide high-speed Internet access.  
C IEEE 802.16a adds optional support for mesh topology other than point-to multi point  
D To avoid collisions on wireless networks, \_\_\_\_\_ was invented.
- Q  
A CSMA/CA  
B CSMA/CD  
C either (a) or (b)  
D both (a) and (b)
- Q VANETs were first mentioned and introduced in \_\_\_\_  
A 2000  
B 2001  
C 2002  
D 2003
- Q VANETs are a key part of the \_\_\_\_\_ systems (ITS) framework.  
A intelligent transportation  
B information transportation  
C intelliactual transportation  
D internal transportation
- Q VANETs were seen as a mere one-to-one application of \_\_\_\_ principles.  
A WARNET  
B WANET

- C MANET  
D WNET  
Q VANETs support a \_\_\_\_\_ of applications  
A narrow range  
B double range  
C single range  
D wide range  
Q The term VANET became mostly synonymous with the more generic term \_\_\_\_\_.  
A inter-lock communication  
B inter-vehicle communication  
C inter- plan communication  
D inter-city communication  
Q Traffic information systems, which use \_\_\_\_  
A WARNET  
B WANET  
C VANET  
D WNET  
Q VANET is also known as\_\_  
A V2V  
B V3V  
C V4V  
D V5V  
Q A true MANET by definition requires\_\_\_\_\_ routing  
A multicast  
B Unicast  
C broadcast  
D narrowcast  
Q MANETs a popular research topic since\_\_\_\_  
A 1990  
B 1940  
C 1960  
D 1920  
Q A mobile ad hoc network (MANET) sometimes known as

- A "off-the-fly"
- B "on-top-fly"
- C "on-the-fly"
- D "on-to-fly"
- Q iMANETs stands for
  - A Internet-based mobile ad hoc networks
  - B International mobile ad hoc networks
  - C Internal mobile ad hoc networks
  - D Interchange mobile ad hoc networks
- Q iMANETs supports
  - A only TCP
  - B Only UDP
  - C only IP
  - D TCP/UDP and IP
- Q VANETs are used for communication between \_\_\_\_
  - A planes
  - B vehicles and roadside equipment
  - C trains
  - D ships
- Q InVANETs stands for
  - A Internal vehicular ad hoc networks
  - B Intelligent vehicular ad hoc networks
  - C International vehicular ad hoc networks
  - D Intellitual vehicular ad hoc networks
- Q A mobile ad hoc network (MANET) sometimes known as
  - A spontaneous networks
  - B stimulated networks
  - C jumbo networks
  - D simultaneous networks
- Q In \_\_\_\_\_ methods, a station cannot send unless it has been authorized by other stations.
  - A random access
  - B controlled access
  - C channelization

- D Mobilization
- Q IEEE 802.11 have three categories of
- A frames
- B field
- C signals
- D sequences
- Q \_\_\_\_\_ allows us to control electronic component
- A RETful API
- B RESTful API
- C HTTP
- D MQTT
- Q MQTT stands for \_\_\_\_\_
- A MQ Telemetry Transport
- B MQ Transport Things
- C MQ Transport Telemetry
- D MQ Telemetry Things
- Q MQTT is \_\_\_\_\_ protocol.
- A Machine to Machine
- B Internet of Things
- C Machine to Machine and Internet of Things
- D Machine Things
- Q The number of elements in the Open IoT Architecture?
- A 7 elements
- B 3 elements
- C 9 elements
- D 5 elements
- The huge number of devices connected to the Internet of Things has to communicate automatically, not via humans. What is this called?
- Q
- A Machine to Machine
- B Intercloud
- C Bot 2 Bot
- D Skynet

Internet of Things needs a lot of network connection. What is the proposed “white Space” radio standard called?

- Q
- A Weightless
- B Bluetooth
- C WiMax
- D Zigbee

Q What is the sensor/protocol used in GSN?

- A CoAP protocol
- B HTTP protocol
- C MQTT protocol
- D XMPP protocol

Open IoT manages the registration, data acquisition, deployment of sensors and interconnected of objects, through which network?

- Q
- A GSN
- B XGSN
- C LSM
- D HTTP

Q Which environment does Global Sensor Network work on?

- A JAVA
- B C
- C C++
- D HTML

Q \_\_\_\_\_ is a community that is working together to establish an IoT architecture.

- A Eclipse IoT
- B Red Hat
- C Intercloud
- D Bot 2 Bot

Q \_\_\_\_\_ provides a middleware and application container for IoT gateway.

- A Eclipse Kura
- B Red Hat
- C Intercloud
- D Bot 2 Bot

Q Global Sensor Network is built for \_\_\_\_\_

- A Reducing cost and time for development
- B Reducing cost and increasing time for development
- C Increasing cost and increasing time for development
- D Increasing cost and decreasing time for development
- Q Which is the core wrapper of GSN?
- A ZeroMQWrapper
- B UDP
- C GPSTest
- D serial
- Q MWSN stands for
- A Moving WSN
- B Mobile WSN
- C Moderate WSN
- D Mid WSN
- Q Hardware address is known as \_\_\_\_\_
- A MAC address
- B IP Address
- C Network Interface Card
- D Address Resolution Protocol
- Q MAC stands for \_\_\_\_\_
- A Media Area Control
- B Memory Access Control
- C Memory Area Control
- D Media Access Control
- Q What translates IP address into MAC address?
- A Organizationally Unique Identifier
- B Address Resolution Protocol
- C Network Interface Card
- D Burned In Address