Important questions

Q1.Explain Briefly ISI and state Nyquist Criterion for Zero ISI (Q1/U3).

Q2. What is Windowing ? Why is it carried out ? (Q3/U3).

Q3 What is diversity Combining ? Explain different types of combining techniques briefly. (Q6/U3).

Q4.Explain MIMO systems briefly with diagrams. (Q9/U3).

Q5 Explain working principle of vocoders briefly(Q10/U3).

Q6Explain the concept of SC-FDMA with suitable diagram. (Q7/U4).

Q7. Draw the flow chart of decoding mechanism in IDMA receiver. (Q9/U4).

Q8.Discuss Pure ALOHA and slotted ALOHA concept briefly(Q10,11/U4).

Q9Explain following network Architectures (a) GSM (b) GPRS (c)UMTS(Q1,2,6/,U5).

Q10What are the prominent features of long term evolution(QU5).

Q11. Explain wireless local loop with suitable diagram. (Q8U5).

Q12 write a short note on ad hoc network(Q9U5).

Q=Question and U= unit of notes provided

 MCQs

Q1.The SIM card used in Mobile phone has ------------ memory (a) 4 kB (b)**8 kB (**c) 16 kB (d) 64 kB

Q2. The number of time slots per RF Channel bandwidth in GSM standard is (a) 3 (b)6 (c) **8** (d) 16.

Q3 the frame period of one TDMA frame in GSM standard is (a) 3.692µs (b)577 µs (c**) 4.615ms** (d) 40ms

Q4. The -------- translates between the wireless interface and fixed wired infrastructure protocols

1. MS (b)**BSS** (c) MSC (d) OMC

Q5The standard interface that connects a BTS to a BSC is called the ---------- interface (a)Um (b)**A-bis**(c)A(d) D.

Q6. The----------- is the database at MSC that keeps the information about the identity of mobile phone equipment (a) HLR (b) VLR (c) AuC (d) **EIR**.

Q7. The---------- standard interface allows a service provider to use base stations and switching equipment made by different manufactures(a)Um (b)A-bis(c)**A(**d) D.

Q8. The ------------ layer in GSM signaling protocol architecture specifies the modulation and coding techniques used in the system (a) **physical** (b) data link(c)networking (d) messaging

 Q9. The gross data rate of each carrier in GSM is(a) **270.833kbps** (b)33.854kbps(c)24.7kbps(b)13.4kbps

Q10.The PCM speech coder has data rate of ----------- which is considerably high for use with wireless systems (a) 512kbps(b) 256kbps(c)128kbps(d)**64kbps**

Q11. The effect of spread spectrum modulation is that the band width of the spread signal (a) remains constant (b**) increases significantly** (c) increases marginally(d) decreases

Q12 CDMA is a multiple access strategy for wireless communication based on ------------- technique (a) **DSSS** (b) Fast FHSS (c) Slow FHSS(d)THSS

Q13. A DSSS system has a 48 Mcps code rate and 4.8kbps information data rate . The processing gain computed to be (a) 4.8dB(b)48dB(c)**40** dB(d) 60dB

 Q14 The typical value of the sectorization gain factor is taken as (a) 6(b)3(c)4(d)**2.5**

Q15. Each carrier of IS-95 standard occupies a ------------- of bandwidth (a)25kHz (b) 200kHz (c)30kHz(d)**1250kHz**

Q16 the ------channel is used for sending short messages including short messages (a) forward traffic (b) **paging** (c) sync (d)pilot.

Q17. Wi-Fi technology is specified in (a) IEEE802.11 WLAN standards (b) IEEE802.11a WLAN standards(c) **IEEE802.11b WLAN standards**(d) IEEE802.11g WLAN standards

Q18. Blue tooth technology has been adopted as IEEE------------------------ standards(a)**802.11b** (b)802.11.1 (c) 802.15.3 (d)802.16a

Q19 the Wi-Max technology uses multicarrier OFDMA scheme in 2GHz-11GHz band to achieve transmission rates of (a)11Mbps(b) 54Mbps(c**) 155Mbps**(d) 64Mbps

Q20. Quality of service in mobile network is affected by (a) transmission errors (b)network connectivity, effective bandwidth, connection reliability ,and data loss probability (c) atmospheric conditions (d)network load and data lost per second.