Chapter: 13
Modern Communication Systems

One mark questions (Knowledge)

1. What is cellular communication system?
2. What is meant by 'cell' related to mobile communication?
3. What is a call-handoff?
4. What is frequency reuse?
5. Expand MTSO.
6. Expand GSM.
7. Expand CDMA.
8. What is cell splitting?
9. What is Internet?
10. Expand ARPA.
11. Expand PDA.
12. Expand ISP.
13. What is a protocol?
14. Name the protocol used in Internet.
15. Define the World Wide Web (OR) what is WWW?
16. Expand URL.
17. What is a satellite?
18. What is transponder?
19. What is meant by optical fibre communication?
20. What is a communication satellite?
21. Define uplink signal.
22. Define downlink signal.
23. Define Wi-Fi.
24. What is Bluetooth?
25. What is a piconet?
26. Expand FHSS related to Bluetooth technology.
27. Expand FSK related to Bluetooth technology.
28. What is fiber optic cable?
29. What materials are commonly used for fiber optic cables?
30. Name the device which receives and transmits the signal from a satellite.
31. Expand RADAR.
32. What is RADAR?

One mark questions (Understanding)

1. Why adjacent cells are assigned different frequencies in mobile communication.
2. Why cells are in 'hexagon' shape during cell splitting?
3. Mention the frequency of uplink signal used in a C-band satcom system.
4. Mention the frequency of downlink signal used in a C-band satcom system.
5. Which band is preferred for the operation of Bluetooth devices?

Two marks questions (Knowledge)

1. State the different techniques used for improving capacity in cellular system.
2. Mention any two types of protocols used in computer networks.
3. What is a transponder and Mention its main function.
4. What are uplink and downlink signals in satellite communication?
5. Mention the important techniques used for Bluetooth operation.
6. What is ISP? Mention its role in computer networking.

Two marks questions (Understanding)

1. Explain what is meant by cell splitting.
2. Expand AMPS and TDMA.
3. Distinguish between uplink and downlink signals.
4. List the functions of a transponder.
5. If a transmitted signal takes 1ms to go up to the target and come back after reflection, how far from the radar the target is?
6. If a transmitted signal takes 1μs to go up to the target and come back after reflection, how far from the radar the target is?

Two marks questions (skill)

1. Draw the block diagram of a transponder.
2. Draw the block diagram of an optical fiber communication system.
3. Draw the block diagram of RADAR system.

Three marks questions (Knowledge)

1. Mention the advantages of cell phone systems.
2. Mention the uses of Internet.
3. Mention few applications of satellites.
4. Mention few applications of optical fiber communication.
5. Mention a few applications of Radar.
6. Give abroad classification of RADAR systems.
7. Mention the additional new features of the latest 3G and 4G cell phone systems compare to old 1G and 2G cell phones.

Three marks questions (Understanding)

1. Explain the principle of operation of Bluetooth.
2. Mention few applications of Bluetooth.
3. Give a comparison of Bluetooth and wi-fi.

Three marks questions (skill)

1. Draw the typical block diagram of Bluetooth system.

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