

Question Bank (G Scheme)

Name Of Subject: MCO

Unit Test: I

Subject Code: 17657

Course: EJ6G

Semester: VI

Chapter 1: Introduction to Wireless Communication Systems (20 Marks)

3 Marks Questions

- 1) Define the following terms:
 - a) Mobile Station
 - b) Base Station
 - c) Pager
- 2) List various mobile radio systems around the world. Explain any one in brief.
- 3) Draw labeled block diagram of paging system.
- 4) Draw the labeled block diagram of cellular system. Explain its operation.

4 marks questions

- 5) Give three examples of wireless systems. Describe any one system.
- 6) Describe the call making procedure from landline phone unit to mobile handset.
- 7) Describe the call making procedure from mobile handset to landline phone unit.
- 8) Draw the block diagram of mobile unit. State the function of logic and control unit in mobile handset.
- 9) Draw the block diagram of mobile handset and explain it in brief.

10) Draw the block diagram of frequency synthesizer and explain it.

11) Draw the block diagram of receiver unit of mobile handset and explain it.

12) Draw the block diagram of transmitter unit of mobile handset and explain it.

Chapter 2: The Cellular Concept (20 Marks)

3 Marks Questions

13) Describe the basic cellular system.

14) With the help of diagram define:

a) Cell b) Cluster c) Cluster Size

15) Describe the concept of frequency reuse.

16) Draw the frequency reuse patterns for following cluster sizes:

a) $N=4$ b) $N=7$ c) $N=12$

17) Write a short note on capacity of cellular system.

4 marks questions

18) Compare CDMA & TDMA. (Any four points).

19) What is hand-off? Explain it in details.

20) Explain soft hand-off with suitable diagram.

21) Explain MAHO in details.

22) List types of interference occurred in cellular systems. Explain anyone in details.

23) Explain the concept of cell splitting. How it helps to increase system capacity.

24) Describe how repeaters used for range extension of cellular systems.

25) Describe micro-cell zone concept with suitable diagram.

Chapter 3: Digital Cellular Mobile Systems (10 Marks)

3 marks questions

26) State the various services provided by the GSM.

4 Marks questions

27) Draw the GSM architecture and state the function of OSS.

28) State the function of HLR and VLR in GSM systems.