

Government Polytechnic, Kotabagh (Nainital)

Model Question Paper for Practice

Branch: Electronics Engg.

Time: 03 Hrs

Sub: Mobile Communication

Max Marks: 50

SECTION – 'A'

Note: Attempt any Ten questions. (कोई दस प्रश्न हल कीजिए)

1x 10 = 10

- Q. 1. EM waves propagate with the speed of .....
- Q.2. The sky wave actually gets..... from the Ionosphere.
- Q.3. Ground wave propagation is mainly used for ..... band.
- Q.4. Maximum usable frequency is .....
- Q.5. Paging system operates in Simplex mode. (True/False)
- Q.6. FCC stands for .....
- Q.7. The two paging protocols used are ..... & .....
- Q.8. Full form of RSSI is .....
- Q.9. The maximum power output for Cordless telephone system has been fixed by FCC as 1 watt. (True/False)
- Q.10. Isotropic source is one which radiates uniformly in all directions. (True/False)
- Q.11. The Two Channel assignment techniques in Cellular radio system are..... & .....
- Q.12. The Co-channel reuse ratio  $Q =$  .....

SECTION – 'B' (Short Answer Type) लघु उत्तरीय प्रश्न

Note: Attempt any Five questions. (कोई पाँच प्रश्न हल कीजिए)

3 x 05 = 15

- Q.1. Write a short note on Electromagnetic waves ?
- Q.2. Define the capacity of a Cell in Cellular radio system ?
- Q.3. Discuss the role/need of 'Power control' for reduction of Interference ?
- Q.4. Define the 'Sectoring' technique in brief ?
- Q.5 Define Hand-off process in short .
- Q.6. Discuss the principle of 'Frequency Reuse' using a cluster of  $N=7$  ?
- Q.7. Write a short note on Blue tooth Technology ?

SECTION – 'C' (Long Answer Type) दीर्घ उत्तरीय प्रश्न

Note: Attempt any Five questions. (कोई पाँच प्रश्न हल कीजिए)

5 x 05 = 25

- Q. 1. Explain The "Paging System" along with its block diagram ?
- Q. 2. Discuss the "Ionospheric wave propagation" ?
- Q.3. Differentiate between "Co-channel Interference" and "Adjacent Channel Interference" ?
- Q.4. Discuss the principle of 'Frequency Reuse' using a cluster of  $N=7$  ?
- Q.5. Write a short note on GSM ?
- Q.6. What are Multiple Access Techniques? Discuss the "Spread Spectrum multiple access" technique in brief?
- Q.7. Write a short note on any two of the following:
  - a) Doppler Effect
  - b) Repeater for Range Extension.
  - c) TDMA
  - d) RFID