| FDMA | TDMA | CDMA |
| --- | --- | --- |
| FDMA stands for Frequency Division Multiple Access. | TDMA stands for Time Division Multiple Access. | CDMA stands for Code Division Multiple Access. |
| In this, sharing of bandwidth among different stations takes place. | In this, only the sharing of time of satellite transponder takes place. | In this, there is sharing of both i.e. bandwidth and time among different stations takes place. |
| There is no need of any codeword. | There is no need of any codeword. | Codeword is necessary. |
| In this, there is only need of guard bands between the adjacent channels are necessary. | In this, guard time of the adjacent slots are necessary. | In this, both guard bands and guard time are necessary. |
| Synchronization is not required. | Synchronization is required. | Synchronization is not required. |
| The rate of data is low. | The rate of data is medium. | The rate of data is high. |
| Mode of data transfer is continuous signal. | Mode of data transfer is signal in bursts. | Mode of data transfer is digital signal. |
| It is little flexible | It is moderate flexible. | It is highly flexible. |

Problem

If a cellular operator is allocated 10.5 Mhz for each simplex band and if Bt is 10.5 Mhz, Bguard is 8khz and BC is 20khz. Find the number of channels available in an FDMA system.

(Bt-Bguard)/Bc

(10.5-8)/Bc

Process gain=Bandwidth of spread data signal/bandwidth of unspread data signal