

M.Sc.-II (Electronics) (New CBCS Pattern) Semester - IV
PSELT404.2 / PSELET404-SEC4 - Paper-IV :
Mobile and Satellite Communication

P. Pages : 2

Time : Three Hours



GUG/S/23/11374

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw neat and labelled diagram wherever necessary.

Either :-

1. a) Describe the operation of cellular system. **8**
b) Explain the concept of frequency reuse. **8**

OR

- c) Discuss the general concept of cellular digital switching system. **8**
d) Explain the role of microwave in cellular system. **8**

Either :-

2. a) Explain GSM architecture with suitable diagram. **8**
b) Explain the concept of intelligent cell. State its application. **8**

OR

- c) Explain mobile handset as a data storage device. **8**
d) Explain CDMA technology for cellular system. **8**

Either :-

3. a) What are the orbital parameters required to determine a satellite orbit? Name and explain them. **8**
b) What is telemetry tracking? Explain the importance of telemetry tracking system. **8**

OR

- c) Explain **8**
i) Coverage area
ii) Work Angle.
d) Explain the effect of solar eclipse on satellite communication. **8**

Either :-

4. a) Explain the TDMA frame structure. **8**
b) Discuss the FDMA. State its advantages & disadvantages. **8**

OR

- c) Describe the direct to home (DTH) TV satellite service. **8**
d) Explain the role of satellite in weather forecasting station. **8**
5. a) Explain the cell splitting. **4**
b) State the feature of cellular handset. **4**
c) Discuss the satellite stabilization in a orbit. **4**
d) State the advantages and disadvantages of CDMA. **4**
