

2015
B.E. (Electronics and Communication Engineering)
Sixth Semester
EC-605: Satellite Communication

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Section. Use of scientific calculator is allowed

x-x-x

1. Attempt the following:-

- (a) Define multiple accesses. (2)
- (b) List out the disadvantages of LEO satellites. (2)
- (c) What is meant by Hohmann transfer orbit? (2)
- (d) What are the different sources of GPS errors? (2)
- (e) What is the relationship between EIRP and antenna gain? (2)

Section- A

- 2 (a) Discuss about near Geostationary orbits. (5)
- (b) Explain Spin Stabilization and Three-axis Stabilization. (5)
- 3 (a) What are the various satellite launch vehicle selection factors? Explain them. (5)
- (b) Explain what is meant by satellite attitude and briefly describe two forms of attitude control. (5)
- 4 (a) What are the various approaches used to improve the reliability of the satellite? Explain any one. (5)
- (b) What are the three main systems for tracking satellites? (5)

Section-B

- 5 (a) What are the different types of antenna mounts used at earth station? Explain. (5)
- (b) Explain in detail transmit receive earth stations. (5)
- 6 (a) Explain the generation of GPS signals with a neat sketch. (5)
- (b) Briefly discuss about watershed management and resource information systems. (5)
- 7. What are the effects to which the displacement in association with tracking feeds gives rise? (10)

x-x-x