PVP 12

Code: EC8T3D

IV B.Tech-II Semester–Regular/Supplementary Examinations–April 2017

GLOBAL POSITIONING SYSTEM
(ELECTRONICS & COMMUNICATION ENGINEERING)

Duration: 3 hours Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. a) Describe the basic operating principle of the GPS and its architecture with the help of various Segments and neat diagrams. 8 M

   b) Explain about various types of GPS receivers used practically. 6 M

2. a) Write in detail about the implementation of anti-spoofing and selective availability. 8 M

   b) Describe the signal code structure of different GPS signals used in satellite signaling. 6 M

3. a) Discuss the significance of the GPS time frame and write its significance in real time. 7 M

   b) Compare and contrast between Geodetic and Geo centric coordinate system. 7 M

4. a) Discuss the navigation message data parameters of RINEX format used in GPS. 7 M

b) Write about the various steps involved in GPS position determination practically. 7 M

5. a) Write the different types of errors and sources in GPS signals and their counter measures. 6 M

b) Discuss the procedure for ionospheric error estimation using dual frequency GPS receiver 8 M

6. a) Write in detail about the method for uncorrelated bias parameterization formulation. 6 M

b) Describe about the optimal baseline network forming and data conditioning algorithms. 8 M

7. a) Write about the standard algorithms used for GPS Data Processing. 8 M

b) Distinguish between single point positioning and relative positioning in GPS data processing. 6 M

8. a) Write a note on applications of GPS Theory for software development and positioning. 7 M

b) Discuss the concept of Precise Kinematic positioning of GPS applications. 7 M