

## GPS / GNSS : SAMPLE QUESTIONS

1. What are the orbital characteristics of GPS satellites?
2. What is the full form of PRN code?
3. How is positioning done in GPS? / What is the minimum number of satellites required to determine one's position using GPS? Why?
4. What is the minimum and maximum number of GPS satellites that can be viewed by a receiver to determine its position?
5. Name the Global Navigation Satellite Systems that can be used as alternatives to GPS.
6. In GPS what is meant by clock bias?
7. What are the two main carrier frequencies of GPS?
8. What is PDOP? Why is it important? How can a GPS survey be planned?
9. What is referenced ellipsoid? Why is it required for mapping / positioning?
10. What are the dimensions of WGS 84 and Everest spheroids?
11. What is the relation between geoid and reference spheroid?
12. What is differential GPS?
13. What is the dissimilarity between *using differential GPS* and *using GPS in differential mode*?
14. What is GPS augmentation? Why is it required? Name a few of the GPS augmentation systems.
15. What is the function of Base and Rover receivers in GPS positioning in differential mode?
16. What are the sources of errors in GNSS survey?
17. Explain the advantages and disadvantages of the GNSS survey over conventional (land-based) surveys.
18. What is the role of India in GNSS? / What are GAGAN and IRNSS?
19. How can old Survey of India maps and GPS/GNSS readings be made compatible to each other?
20. What are the advantages and disadvantages of using UTM coordinates in GPS/GNSS positioning?