

GPS Questions for National FFA Contest

Blue Track

- 1) To maintain orbital accuracy, GPS satellites are continuously monitored using _____
 - a) LORAN
 - b) Celestial Telemetry
 - c) Radar
 - d) Omega

- 2) Which of the following describes the process used to predict signal delay from satellite signals passing through the earth's atmosphere?
 - a) Ephemeris calculation
 - b) Multipath delineation
 - c) Error Modeling
 - d) Multipath linear degradation

- 3) The U.S. GPS satellite constellation configuration is such that a minimum of _____ satellites are viewable in North America at any given time?
 - a) 4
 - b) 5
 - c) 6
 - d) 12

- 4) If you obtain measurements from 3 satellites, this narrows down your position to _____ location(s) in space?
 - a) 1
 - b) 2
 - c) 3
 - d) 4

- 5) Which navigational system can be integrated with an automobile satellite navigational system to obtain positional fixes in areas that limit signal reception (e.g., deep canyons or tunnels)?
 - a) LORAN
 - b) Dead Reckoning
 - c) OMEGA
 - d) Celestial

- 6) Which of the following statements pertaining to terrestrial positioning systems is false?
- a) Used by maritime and aeronautical navigators
 - b) a computerized version of the terrestrial positioning system is still used in aircrafts such as Lockheed Martin's SR-71 "Blackbird"
 - c) Uses low frequency radio waves to obtain positional data
 - d) Usable in cloudy, adverse weather conditions
- 7) Which of the following is not a global navigation satellite system?
- a) BeiDou
 - b) GLONASS
 - c) Galileo
 - d) GPS
- 8) A measurement from a fourth satellite allows for _____?
- a) Improved signal strength
 - b) Precise linear interpolation
 - c) Precise positional determination
 - d) Precise orbital linearity
- 9) Which of the following provides the most accurate positional data?
- a) GPS
 - b) Differential GPS
 - c) LORAN
 - d) Omega
- 10) True or False: Ionosphere errors are one of the least significant error sources.
- a) True
 - b) False