**1. Which of the following are GPS segments (select one).**

A. User, Map, Data

B. Space, Control, User

C. Control, Space, Hardware

D. User, Control, Network

**2. What are the minimum number of GPS satellites needed to calculate a position?**

A. 3

B. 4

C. 2

D. 5

**3. Which of the following is the best definition of a GPS multipath error (select one):**

A. Calculate position error from the signals received by comparing with a well-known point location.

B. Too many obstacles such as forests, buildings, steep mountains obstruct the GPS signal.

C. The satellite signal bounces around traveling through the ionosphere and the troposphere.

D. The GPS signal is reflected off objects before reaching the receiver.

**4. Which of the following are the best examples of standard autopilot features on consumer-grade UAS (select one).**

A. Auto-return home, differential correction, power backup

B. Waypoints, WAAS, controller link

C. Auto-takeoff, Points of interest, Fail safe

D. Points of interest, WRS, Auto-landing

**5. Which of the following is the best definition of remote sensing (select one)?**

A. Acquisition of data about an object by being in physical contact with it.

B. Acquisition of information about an object without being in physical contact with it.

C. Acquisition of information about a dataset using physical sensing techniques.

D. Acquisition of data about an object by mapping using a GPS receiver.

**6. Spatial Resolution is the energy magnitude a given phenomenon emits or reflects across various wavelengths (True or False).**

A. True

B. False

**7. Which of the following demonstrates an example of the importance of remote sensing change detection in disaster management application (select one)?**

A. Comparing before and after disaster impact imagery such as areas impacted by floods.

B. Comparing before and after disaster vector datasets such as areas impacted by floods.

C. Comparing before and after disaster social media feeds such as areas impacted by snow storms.

D. Comparing the pixel values within a single image such as areas impacted by floods.

**8. What is the International Charter on Space and Major Disasters (or “the International Charter”) (select one)?**

A. The officially mandated UN program with a mission focused on building capacity for the use of space-based information within the full disaster management cycle.

B. A program that uses NASA assets to support disaster applications around the world.

C. A worldwide collaboration, through which satellite data are made available for the benefit of disaster management.

D. A service of the German Aerospace Center where geo data are acquired and analyzed in order to generate up-to-date situational awareness information before, during or after a disaster situation or in case of major events.

**9. Indoor navigation** **and positioning is (select one):**

A. Tracking locations of people or objects inside of buildings.

B. Acquiring, processing, and interpreting images that record the interaction between electromagnetic energy and matter.

C. Tracking locations of people or objects at geo-spatial scale.

D. The system to calculate the position or coordinate on the earth’s surface.

**10. Which of the following best outline challenges with indoor maps (2D or 3D)** **to support indoor navigation (select one)?**

A. Indoor maps (2D or 3D) can be difficult to re-project on-the-fly.

B. Indoor maps (2D or 3D) can be difficult to process visual variables used.

C. Indoor maps (2D or 3D) can be difficult to obtain, create, and/or standardize.

D. Indoor maps (2D or 3D) are often subject to organizational sharing restrictions.