

PEAK Technical Workshop – UAV-VLOS 101 - 2018

Sample Question: Submit your responses via <https://goo.gl/forms/kOptJus7iBraV982> for a prize (conditions apply see details of the contest below):

Details of Contest: *Answers for the 5 questions will be provided at the end of the Dec 20th Workshop, submit your responses via <https://goo.gl/forms/kOptJus7iBraV982> by December 17th, 2017 for a Prize, first 5 participants with the correct answers to all questions will receive a prize. Participants must be present at the end of the workshop to receive the prize.*

Q.1. An Engineer needs to investigate non-functioning solar arrays in a solar farm, what types of fault can be detected using a UAV-VLOS?

- a.) bypass diode
- b.) cell failure
- c.) string faults
- d.) Potential Induced Degradation (PID)
- e.) All of the above

Q.2. An Engineer needs to investigate non-functioning solar arrays in a solar farm, what type or types of payload equipment does the UAV-VLOS require?

- a.) Thermal Imagery Camera
- b.) LiDAR
- c.) RGB 4K Cameras
- d.) Gas detector
- e.) a and c

Q.3. According to Transport Canada what is the maximum altitude from ground you can fly an UAV-VLOS (combined weight of drone 250g to 25kg) for recreation use?

- a.) 400 meters
- b.) 190 meters
- c.) 90 meters
- d.) 75 meters
- e.) 500 meters

Q.4. According to Transport Canada what is the minimum distance you must maintain from an aerodrome when flying an UAV-VLOS (combined weight of drone 250g to 25kg) for recreation use?

- a.) 9 m from the edge of an aerodrome
- b.) 9 m from the centre of an aerodrome
- c.) 9 km from the edge of an aerodrome
- d.) 9 km from the centre of an aerodrome
- e.) non-of the above

Q.5. One of the techniques used in UAV surveillance is LiDAR, the data collected by the LiDAR is analysed using software that breaks down the wavelength and applies Full Width at Half Maximum (FWHM) algorithm to analyse the leading edge of an object and also to determine the spatial co-ordinates of the object(s). What engineering principle is used in this type of software algorithm?

- a.) Gaussian
- b.) Laplace Transformation
- c.) Fourier
- d.) a and b
- e.) b and c