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Question Paper Code: 59513

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Elective

Electronics and Instrumentation Engineering

01UEI913 - APPLICATION OF INSTRUMENTATION IN AEROSPACE AND
NAVIGATION

(Regulation 2013)

Duration: 1.15 hrs

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. Altimeter works on
 - (a) Differential pressure sensing
 - (b) No air pressure sensing
 - (c) Mono pressure sensing
 - (d) radar sensing
2. Attitude of aircraft is displayed in cabin by the instrument named
 - (a) ASI
 - (b) ADI
 - (c) VSI
 - (d) HSI
3. The range of VHF band is
 - (a) 300 to 300 MHz
 - (b) 300 to 3 GHz
 - (c) 3 GHz to 30 GHz
 - (d) 30 GHz to 300 GH
4. In the RADAR types of waves are used
 - (a) infra-red
 - (b) optical waves
 - (c) ultrasound waves
 - (d) radio waves
5. Global Positioning System (GPS) is a
 - a. Satellite Word Station
 - b. Satellite System
 - c. Satellite Signal
 - d. Satellite Solution
6. Global Positioning Service (GPS) is based on a principle called
 - a. 9 Orbits
 - b. 8 Orbits
 - c. 7 Orbits
 - d. 6 Orbits
7. The rotation of aircraft about Z axis leads to the
 - (a) pitching
 - (b) rolling
 - (c) yawing
 - (d) Landing

8. A value _____ technique is used to identify waste.
(a) Mapping (b) Stream (c) Stream Mapping (d) Flow
9. Air to air refuelling system is used to increased the
(a) weight carrying capacity (b) endurance and range of aircraft
(c) short run during take-off (d) height of aircraft node
10. The special device which converts AC into DC and vice versa is known as
a. Armature b. Slip rings c. Split rings d. Field magnets

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11. How are the gyroscopic properties utilized in Flight instruments. (8)
12. With neat diagram, Describe the principle of VHF automatic radio direction finder. (8)
13. What is GPS? How GPS plays a major role as a navigational aid. (8)
14. Draw the functional block diagram of aircraft flight simulator. Explain the operation of the system. (8)
15. Explain in detail about the measurement of fuel quantity by weight technique. (8)