Reg. No. : | | | | | | | | | | |

Question Paper Code: 39513

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2021

Elective

Electronics and Instrumentation Engineering

01UEI913 - APPILICATION OF INSTRUMENTATION IN AEROSPACE AND NAVIGATION

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What is pressure altimeter?
2. State the principle of gyroscope.
3. Write the two types of Landing system.
4. Tabulate the operating range of DME and TACAN.
5. What is stabilization control?
6. What is GPS?
7. Distinguish between fuel system of piston and jet engine.
8. Define AFCS.
9. What is SELCAL?
10. What is trouble indicator light?

PART - B (5 x 16 = 80 Marks)

11. (a) Explain about the mechanism of servo altimeter with necessary diagram. (16)

Or

(b) Explain in detail about the electronic display used in aircrafts. (16)

12. (a) What is the principle of Radio Direction Finding (RDF)? Explain the method of RDF with relevant diagram. (16)

Or

(b) Describe about smoke and fire detection system in a domestic aircraft. (16)

13. (a) (i) What are the classifications of Sun sensor? Explain its working method and applications. (10)

(ii) Specify any six the different satellite based augmented system. (6)

Or

(b) Explain in detail about the functioning of pitch and roll stabilization. (16)

14. (a) Discuss the construction and operation of Aircraft Flight Simulator (AFS). (16)

Or

(b) Explain in detail about the weapons system trainer. (16)

15. (a) Explain hydraulic systems troubles and landing gear troubles in detail. (16)

Or

(b) Explain in detail about the usage of black box and its operation. (16)