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Question Paper Code: 39513

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

Elective

Electronics and Instrumentation Engineering

**01UEI913 - APPLICATION 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 the purpose of using an artificial horizon?
2. What is bungee cylinder?
3. Name any four navigation system.
4. What is meant by emergency locator transmitter?
5. What is stabilization control?
6. What is GPS?
7. Mention any two abnormal conditions in aircraft flight simulation.
8. Write the four steps performing in jet engine operation.
9. What do you mean by purging the system?
10. What is trouble indicator light?

PART - B (5 x 16 = 80 Marks)

11. (a) (i) With neat diagram explain operation of the pressure altimeter. (8)
(ii) Write short notes an airspeed indicator. (8)

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) Explain the cabin pressure measurement and temperature measurements with diagrams. (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) Brief about the horizon sensing system. (16)

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

Or

- (b) Explain in detail the different flight controls and auto pilot troubles. (16)

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

Or

- (b) (i) Discuss the landing gear troubles in aerospace instruments. (8)

- (ii) Specify the Boeing condition in aerospace engineering. (8)