

**B.Tech. AEROSPACE ENGINEERING  
(BTAE)**

**Term-End Examination**

00785      **December, 2014**

**BAS-019 : AIRCRAFT INSTRUMENTS**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Attempt any **seven** questions. All questions carry equal marks.*

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1. Draw a block diagram of a typical radio-navigation system and explain it. 10
2. Write a detailed note on cabin pressurization procedures in an aircraft. 10
3. Describe the working of a Pitot tube with a neat sketch. 10
4. Explain the starting system of an aircraft. List out the gas turbine engine starters with a neat sketch. 10
5. State the working principle of a gyroscope. Also explain any one gyroscopic instrument used in the aircraft. 10
6. Write short notes on the following : 5+5=10
  - (a) Ignition Control
  - (b) Air Speed Indicator

7. Define the following terms : 5×2=10
- (a) True Air Speed
  - (b) Indicated Air Speed
  - (c) Magnetic Equator
  - (d) Equivalent Air Speed
  - (e) Head Wind
8. Explain the working principle of a landing gear with a neat sketch. 10
9. Briefly describe the following : 5+5=10
- (a) ILS
  - (b) Marker Beacon
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