

00221

**B.TECH. IN AEROSPACE ENGINEERING  
(BTAE)**

**Term-End Examination  
December, 2010**

**BAS-011 : Aircraft Systems and Airworthiness  
Requirements**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Answer any seven questions.*

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1. Briefly describe Basic hydraulic system's with neat sketches. 10
2. (a) What are the advantages and disadvantages of pneumatic system over hydraulic system? 5  
(b) What are the Requirements of pressurization system in aircraft? Explain in brief pressurization system. 5
3. Explain briefly Air Craft Air Conditioning Systems. 10
4. What are the Requirements of oxygen system in aircraft? Explain in detail about oxygen system? 10

5. Explain the different types of lubrication systems. 10
  
6. What are the Requirements of fire Protection System in Aircraft ? What are the different methods of fire detection system in use ? 10
  
7. (a) Which Civil Aviation Requirement's [CAR] section deals specifically with "Design Standard and type Certification ? 5
- (b) What are the general standards of USA and Russia for design of military aircraft ? 5
  
8. (a) Explain the difference between incident and accident. 5
- (b) Enumerate the detailed information's to be intimated to DGCA in case of an accident of an aircraft. 5
  
9. (a) Explain the purpose of an Auxiliary Power Unit (APU) in an Aircraft. Bring out the basic difference between an APU and GPU [Ground Power Unit]. 5
- (b) Explain in brief the stability in a servo control system. 5