

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

**Term-End Examination**

00488

**June, 2016**

**BAS-018 : AIRCRAFT SAFETY AND MAINTENANCE  
ENGINEERING**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Answer any ten questions. All questions carry equal marks.*

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1. Define special inspection of aircraft components. Also discuss condition based monitoring of aircraft components. 7
2. What is aircraft proximity ? How has aircraft proximity been classified in Air Safety Circular ? 7
3. Describe the method of statistical modelling used in Statistical Process Control (SPC). 7
4. What are smart materials and how can they be used for structural health monitoring of an aircraft ? 7
5. Discuss in brief the following check procedures in aircraft maintenance : 7
  - (a) Transit check
  - (b) Ramp check

6. What are the responsibilities laid out in Air Safety Circulars for ensuring correct refuelling ? What are the aircraft operator's and fuel vendor's responsibilities in this regard ? 7
  7. A technician is performing a maintenance task at continuous time at 0.006 errors per hour. Calculate his reliability during a 10-hour mission. 7
  8. Differentiate between routine and non-routine maintenance with suitable examples. 7
  9. Define 'rigging' and 'parking' of an aircraft. Explain the precautions to be taken while parking an aircraft. 7
  10. Describe the responsibilities of Air Traffic Control (ATC) in ensuring a safe flight. 7
  11. Discuss the significance of the following factors on maintainability of equipment : 7
    - (a) Standardization
    - (b) Interchangeability
  12. Describe the eligibility requirements of a pilot for flying, as per Air Safety Circulars . 7
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