

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

Term-End Examination

June, 2014

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

Time : 3 hours

Maximum Marks : 70

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- Note :** (i) *Answer any seven questions.*
(ii) *All questions carry equal marks.*
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| 1. | (a) | What is maintenance ? What are the objectives of maintenance engineering ? | 5 |
| | (b) | List some measures taken to improve safety in maintenance. | 5 |
| 2. | (a) | Explain some useful strategies for reducing corrective maintenance time. | 5 |
| | (b) | What are the elements of preventive maintenance ? Explain in brief. | 5 |
| 3. | (a) | What are the functions of maintenance department ? | 5 |
| | (b) | Enumerate the factors affecting maintenance management. | 5 |
| 4. | (a) | Categorize the human errors in maintenance. | 5 |
| | (b) | Give a list of major failures in aircraft maintenance due to human errors. | 5 |

5. (a) What do you understand by condition based maintenance ? 5
(b) What are the benefits of condition based maintenance system ? 5
6. (a) What are the significant factors that affect the maintenance management ? 5
(b) What is qualification testing ? Compare it with acceptance testing. 5
7. What do you understand by Health and Usage Monitoring System (HUMS) ? Explain in brief. 10
8. (a) Discuss the role of Built - in test (BIT) setup in aircraft in relation to monitoring and detection of faults. 6
(b) What are the reasons for false alarms in BIT setups ? 4
9. (a) What is accelerated life testing ? 5
(b) What is the difference between Transit Check and Ramp Check ? 5
10. (a) What is on-line and off-line condition monitoring ? 5
(b) What are the benefits of condition based maintenance system ? 5
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