

**III B.Tech I Semester Supplementary Examinations, November 2006**  
**FUNDAMENTALS OF AERONAUTICAL ENGINEERING**  
**(Aeronautical Engineering)**

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. Discuss the development of the materials used for the aircraft construction starting from the early planes. [16]
2. How do the temperature and pressure of atmosphere change with altitude, show the variation by plotting the curves. [16]
3. What are the different type of control systems of an airplane. Describe each of them. [16]
4. Discuss the basic difference between the turbofan and the turbo jet engine. Discuss their merits and demerits. [16]
5. What are the features of a solid propellant rocket and what are its merits over the liquid propellant rocket? Show its working. [16]
6. With the help of a sketch show the working of a servo systems for control surfaces of an airplane. [16]
7. What are the instruments used in the communication in airplane. How does the communication network work? [16]
8. Discuss the various types of lifting surfaces and devices used in aircrafts. [16]

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