

**April 2025**  
**B.A./B.Sc.**  
**Fourth Semester**  
**GENERIC ELECTIVE – 4**  
**NCC**  
*Course Code: NCG 4.11 (B)*  
(NCC: Air Wing)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

**UNIT-I**

1. (a) Describe the structure of the atmosphere and the characteristics of its various layers. 7  
(b) Define visibility and explain the types and causes of poor visibility. 2+5=7
2. (a) Define aeroengines. Elaborate on the various components of aeroengines. 7  
(b) Elucidate the principles of propulsion. Explain the two types of engines with the help of a diagram. 3+4=7

**UNIT-II**

3. (a) What is air navigation? Explain the requirement and importance of air navigation. 2+5=7  
(b) Explain any seven imaginary lines on earth. 7
4. (a) Give a detailed account of Operation Safed Sagar. 7  
(b) Write a detailed note on Marshal of the Indian Air Force Arjan Singh and his contribution to Indian Air Force. 7

**UNIT-III**

5. (a) Give a detailed account of material used in aeromodelling. 7  
(b) Elaborate on the various types of aero models. 7

6. Write a note each on the following: 7×2=14  
(a) Construction of control line models  
(b) Flying of aero models: Hazards and general safety codes

#### UNIT-IV

7. Give an account on NDMA and NDRF. 7+7=14  
8. Elaborate on the role of NCC during natural calamities and disasters. 14

#### UNIT-V

9. (a) Explain the principles and objectives given in the Preamble to the Constitution of India. 7  
(b) Elaborate on the fundamental rights as provided for in the Indian Constitution. 7  
10. Give a detailed explanation of the Directive Principles of State Policy as given in the Constitution of India. 14
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