

## Semester-III Hons

DC5A: Climatology

Teacher: Nanigopal Kapasia

Suggested Books:

- 1.Climatology-D.S Lal
- 2.Climatology-Savindra Singha
- 3.Climatology-Ajit Kumar Shil

L. No.	Topic	Remarks
	<b>Structure and composition of the atmosphere</b>	
1	Introduction of Climatology, Concept & Definition of Climatology,	
2	Concept of weather and climate, Types of climate	
3	Concept of atmosphere	
4	Composition of atmosphere; physical composition	
5	Chemical composition	
6	Vertical structure of atmosphere	
7	Different properties of layers of atmosphere	
8	Introduction of Insolation, Factors affecting Insolation	
9	Distribution of Insolation over the globe	
10	Consequences of Insolation over the globe	
11	Introduction of Heat Budget of Earth and atmosphere	
12	Factors for Heat Budget	
13	Mechanism of Heat Budget of Earth and atmosphere	
14	Consequences of Heat Budget	
15	Class test	
	<b>Horizontal and vertical distribution of temperature</b>	
16	Controlling factors of atmospheric temperature	
17	Horizontal distribution of temperature	
18	seasonal variation, controlling factors	
19	Factors Vertical distribution of temperature	
20	Factors of normal Lapse rate	
21	Types of normal Lapse rate	
22	Inversion of temperature and its types	
23	Consequences of Inversion of temperature	
24	Katabetic and Anabatic wind	
25	Inversion of temperature in upper atmosphere	
26	ozone layer its concept and importance	
27	Concept of Ozone depletion and its causes	
28	Consequences of Ozone layer depletion	
29	Concept of Green house effect	
30	Factors of Green house gasses and its effects	

31	Importance of Green house effect	
32	Class test	
	<b>Condensation and precipitation process</b>	
33	Concept of condensation	
34	Process of condensation	
35	Necessary conditions of condensation, Forms of condensation	
36	Importance of condensation	
37	Concept of precipitation	
38	Pre requisite conditions of precipitation	
39	Forms of precipitation	
40	Mechanism and importance: Ice crystal theory	
41	Mechanism and importance: Collision-coalescence theory	
42	Class test	