CLIMATOLOGY - COURSE MANAGEMENT AND ADVISORY

Climatology is one of the most important components of the UPSC Geography Mains syllabus. At least 3-4 questions in Paper I of Geography Optional are always expected. This means by preparing this section, one can prepare for about 30-50 marks. The section and the syllabus also acts as a multiplier effect. It helps you in answering questions related to Indian climate in Paper II of the optional and also GS Paper II. In fact questions asked in GS in the past were more specific and analytical than the questions of Geography optional.

Moreover, by preparing this portion comprehensively gives you at least 6-8 marks in prelims. That means that a cost benefit analysis of this portion of the syllabus highly favors a comprehensive preparation of Climatology.

Climatology is different from geomorphology in that it is completely conceptual rather than factual and conceptual unlike. Climatolgy has been derivative from Physics consequently an understanding of basic Physics is a must to prepare for Climatology. The section of Climatology is unique because once you have conceptualized it well, it is conceptualized forever. Climatology is not easily forgotten once understood completely. The essence of understanding Climatology lies in understanding of various atmospheric phenomena, their causative factors, their impacts on earth and mankind, modifications caused by natural and anthropogenic factors and finally their applications.

The Syllabus as it is

1. Temperature and pressure belts of the world;
2. Heat budget of the earth;
3. Atmospheric circulation;
4. Atmospheric stability and instability.
5. Planetary and local winds;

6. Monsoons and jet streams;
7. Air masses and fronto genesis,
8. Temperate and tropical cyclones;
9. Types and distribution of precipitation;
10. Weather and Climate;
11. Koppen's, Thornthwaite's and Trewartha's classification of world climates;
12. Hydrological cycle;
13. Global climatic change and role and response of man in climatic changes,
14. Applied climatology and Urban climate.

Relations with GS Mains

The section is present in GS Mains in good amount. This includes

1. Salient features of world's physical geography.
2. Important geophysical phenomena such as, cyclone etc.
3. Geographical features and their location
4. Changes in critical geographical features (ice-caps) and the effects of such changes

Thus, one can be sure of 20-40 marks in GS Paper I.
In the Prelims section, questions from Physical Geography can fetch you 6-10 marks.

What the students Get

- Physical Geography (PG) by K. Siddhartha
- Atmosphere, Weather and Climate (AWC), by K. Siddhartha
- Modern Dictionary of Geography by K. Siddhartha & S.Mukherjee

Additional material that the students can go for

Absolutely not needed

Learning Sequencing as it should be in order to understand the topic, and chapter structure

The course sequencing is not per the syllabus. This is done to provide concept to the candidates. If the candidates follow the topic after another as per the syllabus they will never follow the concept. Hence the sequencing and reordering has been done to students benefit so that students are able to connect the dots and connect their concepts.

How best to utilise it

Pre Online Learning

Before picking Geomorphology to study, the candidate must have studied and understood three chapters-Composition of Atmosphere, Structure of Atmosphere, Insolation and Humidity.

Online Learning sequence.

1. First read the topics
2. Listen to the explanation
3. Now use the summary
4. You have some model answers. Use only questions from model answers to write
5. Now compare your answers with the model
6. Ensemble will keep you updating on current affairs regularly on this topic
7. Keep an eye on updates

Climatology (The syllabus as it should be studied)

Climatology

SEQUENCING	TOPICS	CHAPTER AND STUDY MATERIAL	STUDIO SHOOT WITH ANIMATIONS	CLASS LECTURE-	SYNOPSIS & LECTURE FORMAT	QUESTION BANK	MODEL ANSWERS	CURRENT & ENRICHMENT
1	Structure of Atmosphere	Physical Geography-KS		Siddhartha Sir	Siddhartha Sir			
1a.	Nature of Radiation, and Insolation	Physical Geography-KS	Included	Siddhartha Sir				NA
1b	Heat budget of the earth	Physical Geography-KS	Included	Siddhartha Sir				NA
2	Factors affecting Temperature distribution in the World. Temperature belts	Physical Geography-KS	Included					NA
3	Causes of Pressure differences and evolution of Pressure belts of the world	Physical Geography-KS	Included	Siddhartha Sir				NA

4	Planetary winds	Physical Geography-KS		Siddhartha Sir with Atmospheric Circulation				NA
5	Atmospheric circulation	Physical Geography-KS		Siddhartha Sir				NA
6	Jet streams	Physical Geography-KS	Included					NA
7	Humidity	Physical Geography-KS	Included	Siddhartha Sir				
8	Hydrological cycle	Physical Geography-KS	Not Required	Not Required				NA
9	Atmospheric stability and instability	Physical Geography-KS	Included	Siddhartha Sir				NA
10	Types and distribution of precipitation	Physical Geography-KS	Included	Siddhartha Sir on Origin of Precipitaion				NA
11	Air masses	Physical Geography-KS	Included					NA
12	Temperate Cyclone and	Physical Geography-KS	Included					NA

	Frontogenesis							
13	Tropical Cyclones	Physical Geography-KS	Included					NA
14	Tertiary Atmospheric Circulation-Local winds	Physical Geography-KS	Included					NA
15	Urban climate	Physical Geography-KS	Included					NA
16	Global climatic change and role and response of man in climatic changes	Physical Geography-KS	See Also Bio Environment Geography for 2nd part					Will keep on being updated with new developments
17	Applied climatology	Physical Geography-KS	Not Required					Will keep on being updated with new developments
18	Koppen's, Thornthwaite's and Trewartha's classification of world climates	Physical Geography-KS	Not Required Completely factual Topic					NA
19	Weather and	Physical	Not Required					NA

	Climate	Geography-KS						
20.	Indian Monsoons	See India Physical Aspects	See India Physical Aspects	Siddhartha Sir				

Post Script- General Directions after Course

- Learn how to write answers from your you tube channel and the various answer directives.
- Go through the Question Bank and observe the type of Questions asked.
- Interpretation and understanding of the question is the most important criteria.
- Pick up some questions given in your answer bank and write them on your own.
- Then compare these answers with the answers given to you.
- Repeat this process more than once.
- Then go through the entire answers given to you.
- Now start writing independent answers.
- Special emphasis must be given to drawing correct illustrations. Practice correct illustrations.
- Presentation should be in good legible writing and simple language with:
    - Use of maps, flowcharts and diagrams
    - Use of examples and case studies to support the answer
- Adherence to word limit is advised.
- For answer evaluation you can join the test series and send cam scanned copies to Ensemble.