

**S.S. COLLEGE, JEHANABAD**  
**( GEOGRAPHY DEPARTMENT )**

**B.A. PART - 1 ( PHYSICAL GEOGRAPHY : PAPER - 1 )**

**TOPIC : KOPPEN'S CLIMATE CLASSIFICATION**

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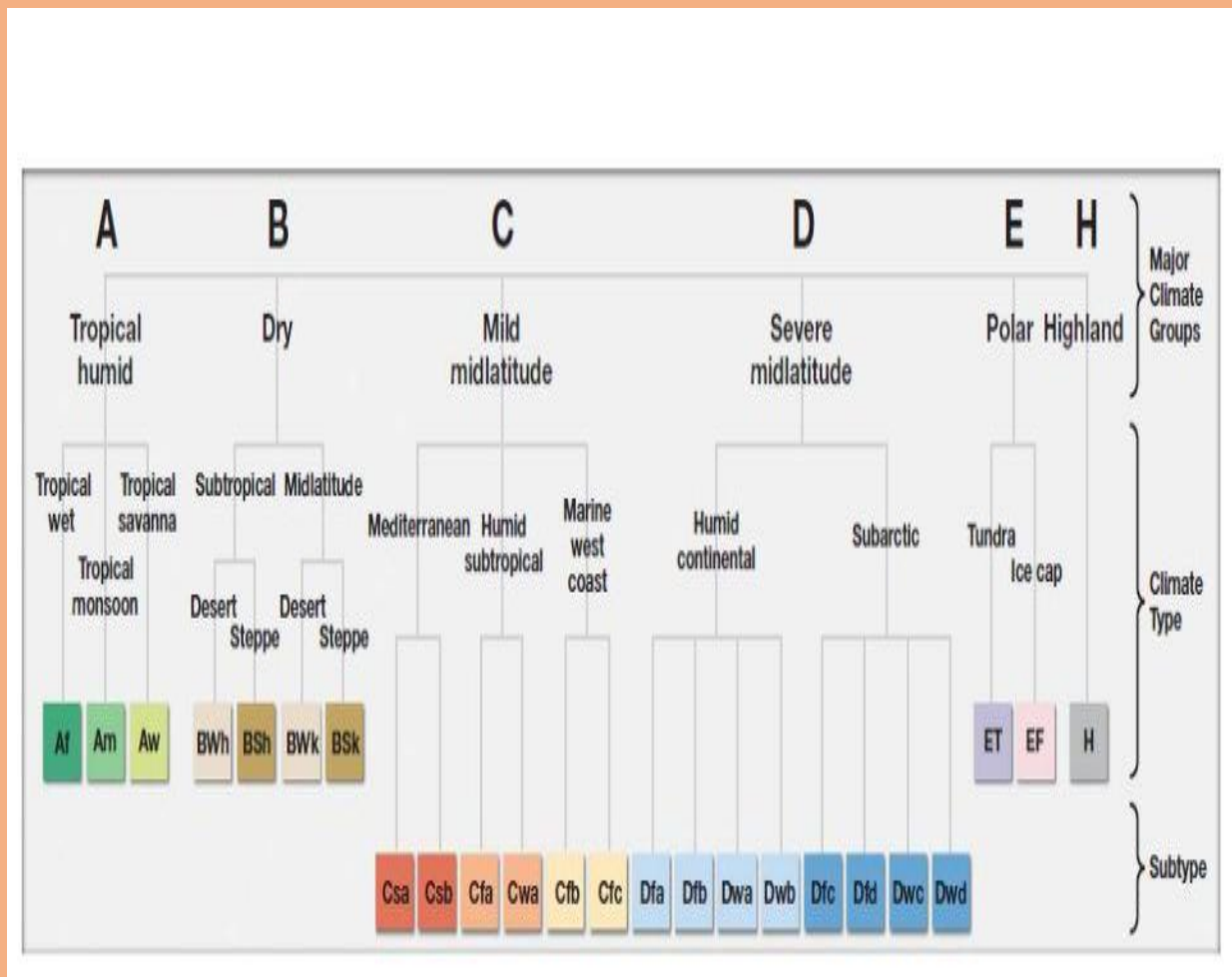
**To cope with the great diversity of information** encompassed by the study of **global climate distribution**, we need a classification scheme **to simplify, organize, and generalize** a vast array of data.

The **Koppen climate classification system** is by far the most widely used modern climate classification system. Wladimir Köppen (1846–1940; pronounced like “kur-pin” with a silent r) was a Russian-born German climatologist who was also an amateur botanist.

- **The first version of his climate classification scheme appeared in 1918**, and he continued to modify and refine it for the rest of his life, the **last version being published in 1936.**
- The **system uses as a database only the average annual and average monthly** values of **temperature and precipitation**, combined and compared in a variety of ways. Consequently, the necessary statistics are commonly tabulated and easily acquired.
- Data for any location (called a station) on Earth can be used to determine the precise classification of that place, and the geographical extent of any

recognized climatic type can be determined and mapped. This means that the classification system is functional at both the local and the global scale.

- Köppen defined four of his five major climatic groups primarily by **temperature** characteristics, the fifth (the B group) on the **basis of moisture**. He then subdivided each group into climate types according to various **temperature and precipitation relationships**.













*koppen climate classification system code letters*

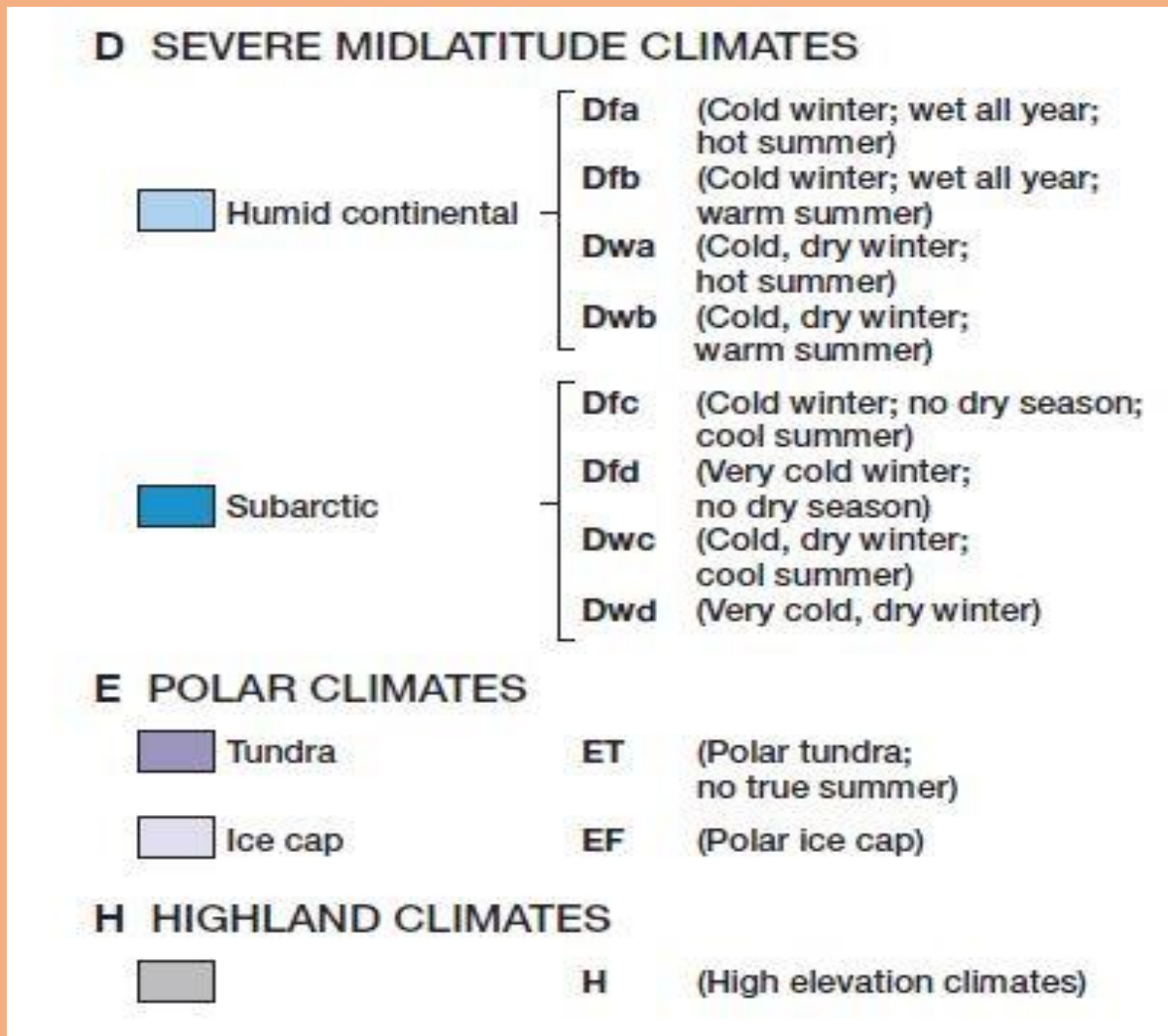
**Image Explanation – The modified Köppen climatic classification. There are 5 major climate groups (and the special category of Highland) and 15 individual climate types.**

## Modified Köppen system

Köppen was unsatisfied with his last version and did not consider it a finished product. Thus, many geographers and climatologists have used the Köppen system as a springboard to devise systems of their own or to modify Köppen's classifications.

Modified Köppen system encompasses the basic design of the Köppen system but with a variety of minor modifications. Some of these modifications follow the lead of Glen Trewartha, who was a geographer and climatologist at the University special category of highland (H) climate.

<b>A TROPICAL HUMID CLIMATES</b>		
	Tropical wet	<b>Af</b> (Wet all year)
	Tropical savanna	<b>Aw</b> (Dry winter; wet summer)
	Tropical monsoon	<b>Am</b> (Dry winter; very wet summer)
<b>B DRY CLIMATES</b>		
	Subtropical desert	<b>BWh</b> ("Hot" desert)
	Midlatitude desert	<b>BWk</b> ("Cold" desert)
	Subtropical steppe	<b>BSh</b> ("Hot" semiarid)
	Midlatitude steppe	<b>BSk</b> ("Cold" semiarid)
<b>C MILD MIDLATITUDE CLIMATES</b>		
	Mediterranean	<b>Csa</b> (Hot, dry summer)
		<b>Csb</b> (Warm, dry summer)
	Humid subtropical	<b>Cfa</b> (Wet all year; hot summer)
		<b>Cwa</b> (Dry winter; hot summer)
		<b>Cwb</b> (Dry winter; warm summer)
	Marine west coast	<b>Cfb</b> (Wet all year; warm summer)
		<b>Cfc</b> (Wet all year; cool summer)



**Image: Climatic regions over land areas (modified Köppen system).**

**Köppen Letter Code System**

In the **modified Köppen system**, each climate type is designated by a **descriptive name** and by a **series of letters** defined by **specific temperature and/or precipitation values** (image).

- **The first letter designates the major climate group,**
- **The second letter usually describes precipitation patterns, and**
- **The third letter (if any) describes temperature patterns.**

Although the letter code system seems complicated at first, it provides a shorthand method for summarizing key characteristics of each climate.

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Prof. Kumari Nisha Rani