

UPSC Civil Services Examination

UPSC Notes [GS-I]

Topic: Koeppen's Climate Classification (Geography Notes for UPSC)

Koeppen's Climate Classification

- Koeppen's Classification of climate is the most commonly used classification of climate.
- This climate classification scheme was developed by Wladimir Peter Koeppen in 1884.
- He recognized a close relationship between the distribution of vegetation and climate.
- The categories are based on the data of annual and monthly averages of temperature and precipitation.
- He selected specific values of temperature and precipitation and related them to the distribution of vegetation and used these values for classifying the climates.
- The Koeppen climate classification system recognizes five major climatic types and each type is designated by a capital letter- A, B, C, D, E, and H.
- The seasons of dryness are indicated by the small letters: f, m, w, and s.
 - f -no dry season
 - m – Monsoon climate
 - w- Winter dry season
 - s – Summer dry season
- The small letters a, b, c, and d refer to the degree of severity of temperature

List of climatic groups and their characteristics according to Koeppen

Group	Characteristics
A- Tropical	Average temperature of the coldest month is 18° C or higher
B- Dry Climates	Potential evaporation exceeds precipitation
C- Warm Temperate	The average temperature of the coldest month of the (Mid-latitude) climates years is higher than minus 3°C but below 18°C
D- Cold Snow forest	The average temperature of the coldest month is minus 3° C or below
E- Cold Climates	Cold Climates Average temperature for all months is below 10° C

H- Highlands

Cold due to elevation

Climatic Types According to Koeppen

Group	Type	Letter Code	Characteristics
A-Tropical Humid Climate	Tropical Wet	Af	No dry season
	Tropical Monsoon	Am	Monsoonal, Short dry season
	Tropical wet and dry	Aw	Winter dry season
B-Dry Climate	Subtropical Steppe	BSh	Low-latitude semi-arid or dry
	Subtropical Desert	BWh	Low-latitude arid or dry
	Mid-latitude Steppe	BSk	Mid-latitude semi-arid or dry
	Mid-latitude Desert	BWk	Mid-latitude arid or dry
C-Warm temperate Climates	Humid subtropical	Cfa	No dry season
	Mediterranean	Cs	Dry hot summer
	Marine west coast	Cfb	No dry season, warm and cool summer
D- Cold Snow-forest Climates	Humid Continental Subarctic	Df Dw	No dry season, severe winter Winter dry and very severe
E-Cold climates	Tundra	ET	No true summer
	Polar ice cap	EF	Perennial ice
H-highland	Highland	H	Highland with snow cover