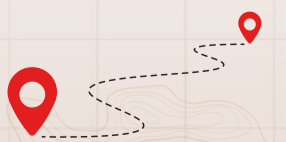




Atmospheric Circulation And Weather System

- Atmospheric pressure is the weight of air column above a unit area.
- Average sea-level pressure is 1,013.2 mb.
- Pressure decreases by about 1 mb for every 10 m rise in the lower atmosphere.
- Isobars join places of equal pressure.
- Main pressure belts: equatorial low, subtropical highs, subpolar lows and polar highs.
- Wind is air moving from high pressure to low pressure.
- Wind is affected by pressure gradient force, frictional force and Coriolis force.
- Coriolis force deflects winds right in Northern Hemisphere and left in Southern Hemisphere.
- Coriolis force is absent at the equator and maximum at poles.
- Geostrophic wind blows parallel to straight isobars when pressure gradient force balances Coriolis force.
- Primary winds are trade winds, westerlies and polar easterlies.





- Trade winds blow towards the equator from subtropical highs.
- Westerlies are strongest in the Southern Hemisphere and are called Roaring Forties, Furious Fifties and Shrieking Sixties.
- Sea breeze blows from sea to land during the day; land breeze blows from land to sea at night.
- Valley breeze is anabatic; mountain wind is katabatic.
- Chinook is called Snow Eater.
- Jet streams are narrow, fast winds in the upper troposphere.
- Tropical Easterly Jet Stream plays an important role in Indian monsoon.
- Air masses are large bodies of air with similar temperature and moisture.
- Frontogenesis means formation of fronts; frontolysis means dissipation of fronts.
- Four fronts are stationary, cold, warm and occluded fronts.
- Tropical cyclones need sea surface temperature above 27°C , Coriolis force, low wind shear and low-pressure circulation.
- Cyclone eye is calm; eyewall is the most violent part.
- Temperate cyclones occur between 30° and 60° latitudes.
- Tornado over the sea is called waterspout.


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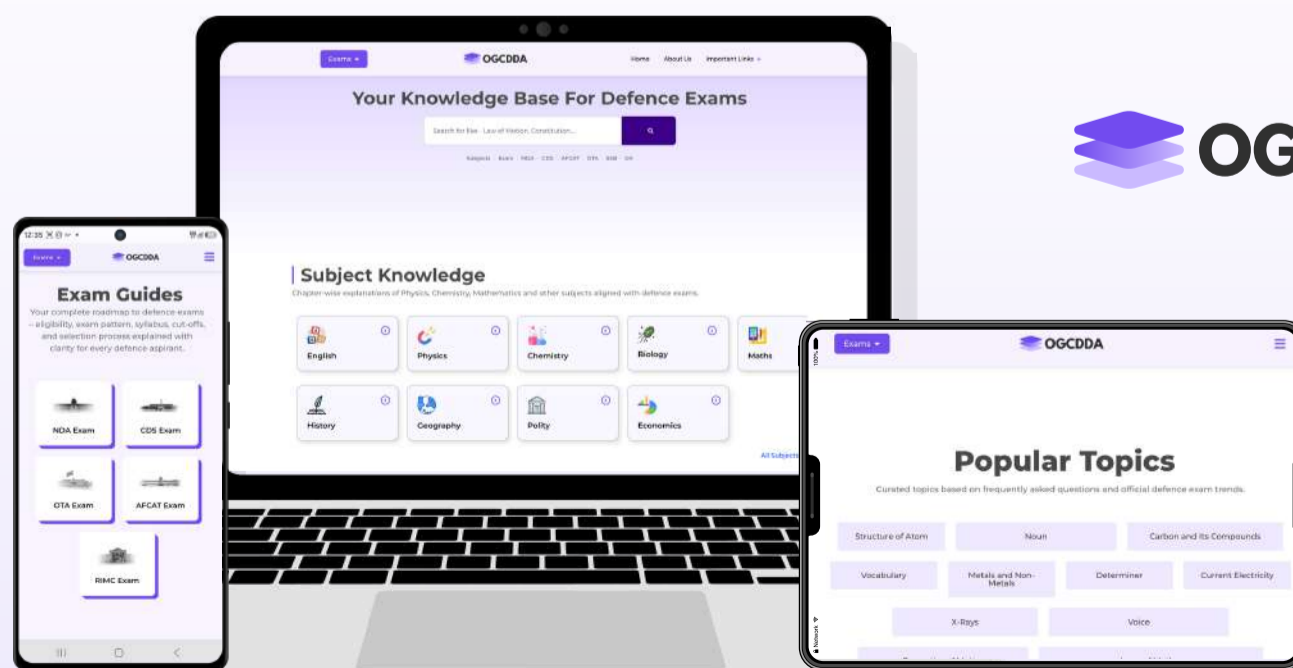
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The image displays the OGCDDA website interface across three devices: a laptop, a tablet, and a smartphone. The laptop screen shows the main page with the heading "Your Knowledge Base For Defence Exams" and a search bar. Below the search bar, there is a "Subject Knowledge" section with a grid of subject buttons: English, Physics, Chemistry, Biology, Maths, History, Geography, Polity, and Economics. The tablet screen shows the "Exam Guides" section, which provides a complete roadmap to defence exams, including eligibility, exam pattern, syllabus, cut-offs, and selection process. The smartphone screen shows the "Popular Topics" section, which lists curated topics based on frequently asked questions and official defence exam trends, such as Structure of Atom, Noun, Carbon and its Compounds, Vocabulary, Metals and Non-Metals, Determiner, Current Electricity, X-Rays, and Voice. The OGCDDA logo is visible in the top right corner of the laptop screen.