

Protest in Bangladesh

- Since the last week of October, one of Bangladesh's largest labour forces the 4.4 million strong ready-made garment (RMG) sector workers are demanding a trebling of their legally mandated minimum wages from 8,000 Bangladeshi Taka (BDT), or about \$72, to 23,000 takas (\$208).
- Bangladesh's Election Commission had announced January 7 next year as the date for elections but this has been rejected by all opposition parties.
- **What is fast fashion's significance to Bangladesh's economy?**
- Bangladesh is the world's second largest exporter of fast fashion, or RMG, after China, accounting for 85% of the country's exports earnings of \$55 billion in 2022.
- It has a global market share of almost 8%.
- The RMG sector's main markets are the U.S., the U.K., Europe and Canada, with H&M being the top importer. Other big brands include Levi's and Zara

What role can brand importers play?

- Big brands like Nike have faced intense criticism beginning in the 1990s for being responsible for driving down procurement costs and amassing super profits at the expense of workers' rights in the Global South, as they took advantage of neoliberalism's 'race to the bottom' approach of finding the cheapest source wherever available.
- These criticisms led to marginal changes, like verifying work conditions, working hours, safety gear, wages and sanitary conditions at global procurement facilities.
- But it did not lead to a meaningful contribution of sharing big brands' profits, or investing in supplier SME's infrastructure, or wages, until recently.
- This recent shift has been fuelled more so, by the global movement to decarbonize supply chains to tackle climate change
- **What is the relationship between the RMG sector and carbon emissions?**
- According to the UN Environment Programme, the fashion industry is

responsible for anywhere between 2-8% of global greenhouse gas emissions, making it “one of the largest contributors to the climate and ecological crisis”

The Hindu

National Pharmacy Commission Bill, 2023

- Proposed National Pharmacy Commission Bill, 2023.
- The Ministry proposes to finalize the Bill for setting up the National Pharmacy Commission and repealing the Pharmacy Act, 1948.
- For this, a draft National Pharmacy Commission Bill has been prepared and uploaded on the website of the Ministry for comments.
- The Bill aims to improve access to affordable and high quality pharmacy education and ensure the availability of pharmacy professionals nationwide.
- It seeks to promote equitable healthcare by making pharmacy services accessible to all citizens.
- It also calls for a periodic and transparent assessment of pharmacy institutions and

facilitating maintenance of a pharmacy register for India.

- The Bill encourages professionals to integrate the latest research into their work, contribute to research, and uphold high ethical standards.

The Hindu

CMEC & SRILANKA

- China is “prioritising” the extension of the China Myanmar Economic Corridor (CMEC) to Sri Lanka.
- China is looking to scale up the Belt and Road Initiative (BRI) project in South Asia
- Additionally, both parties agreed to expedite the implementation of the China Sri Lanka Free Trade Agreement,”
- The CMEC is the newest of the six land corridors under the BRI, and has assumed prominence in place of the Bangladesh China India Myanmar (BCIM) corridor which has largely been stalled.
- India and Bhutan are the only countries in South Asia that have stayed out of the BRI and China’s more recent Global Development Initiative.

The Hindu

Langlands program

- In representation theory and algebraic number theory, the Langlands program is a web of far-reaching and consequential conjectures about connections between number theory and geometry.
- Proposed by Robert Langlands (1967, 1970), it seeks to relate Galois groups in algebraic number theory to automorphic forms and representation theory of algebraic groups over local fields and adeles.
- Widely seen as the single biggest project in modern mathematical research, the Langlands program has been described by Edward Frenkel as "a kind of grand unified theory of mathematics."
- The Langlands program consists of some very complicated theoretical abstractions, which can be difficult even for specialist mathematicians to grasp.
- To oversimplify, the fundamental lemma of the project posits a direct connection between the generalized

fundamental representation of a finite field with its group extension to the automorphic forms under which it is invariant.

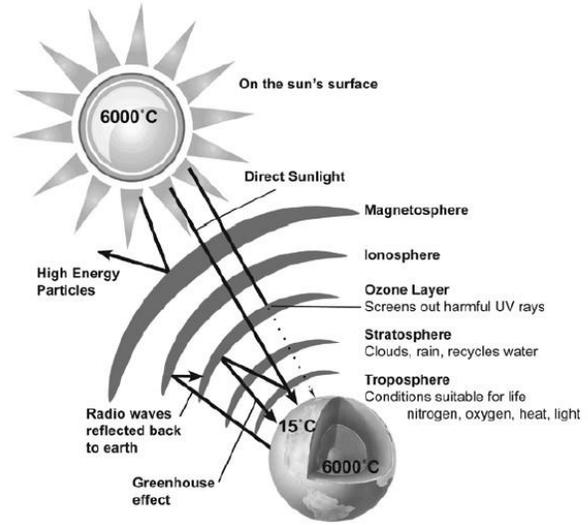
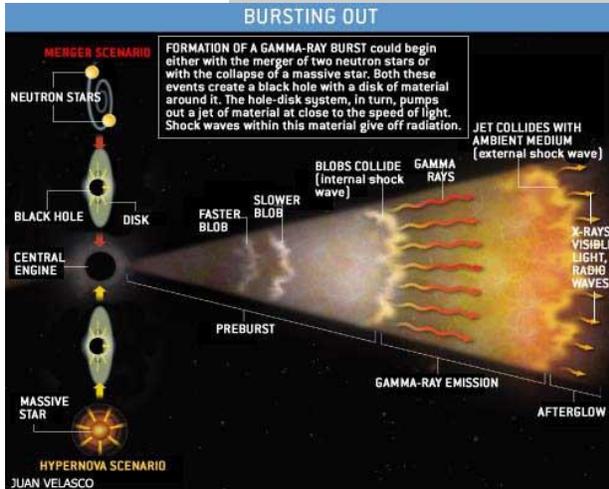
- In mathematics, a conjecture is a conclusion or a proposition that is proffered on a tentative basis without proof.
- In mathematics, in the area of abstract algebra known as Galois theory, the Galois group of a certain type of field extension is a specific group associated with the field extension
- In harmonic analysis and number theory, an automorphic form is a well-behaved function from a topological group G to the complex numbers

Gamma-ray bursts & Ionosphere

What is gamma-ray bursts?

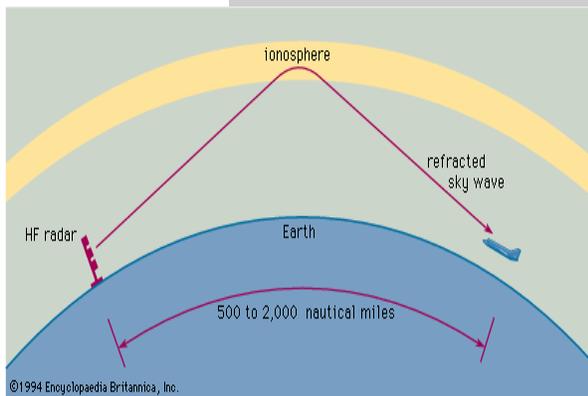
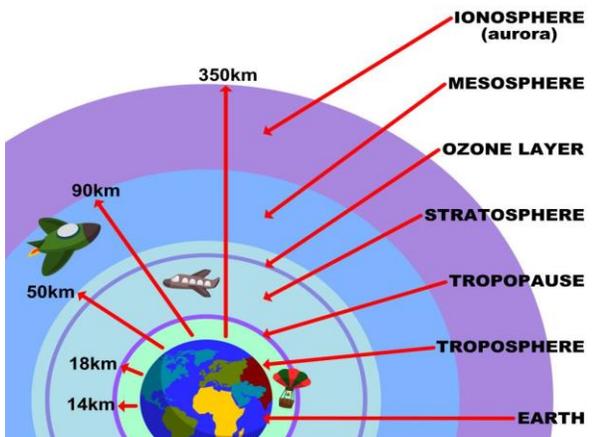
- In gamma-ray astronomy, gamma-ray bursts are immensely energetic explosions that have been observed in distant galaxies, described by NASA as "the most powerful class of explosions in the universe".

- They are the most energetic and luminous electromagnetic events since the Big Bang.



What is ionosphere?

Layers of the Atmosphere



- The ionosphere is situated about 50-950 km above the earth's surface, stretching to the very edge of space.

- It helps form the boundary between the vacuum of space and the lower atmosphere inhabited by people.

- The gamma rays from the burst impacted the atmosphere for about 13 minutes on October 9, 2022.

- They were detected by the European Space Agency's Integral (International Gamma Ray Astrophysics Laboratory) space observatory and various satellites orbiting close to the earth.

- The gamma rays caused a strong variation in the ionosphere's electric field,

- The ionosphere, which helps protect life on the earth by absorbing

harmful ultraviolet rays from the sun, is sensitive to changing magnetic and electrical conditions in space, usually connected to solar activity.

- While this gamma ray burst did not cause deleterious effects for life on the earth, it has been hypothesized that a strong one originating within the Milky Way and pointed right at us could subject the planet's surface to a flood of harmful ultraviolet radiation.

The Hindu



SAURABH PANDEY
CSE
(CIVIL SERVICES EXAMINATION)
FROM BASICS TO UPSC BRILLIANCE