

10 May 2022: UPSC Exam Comprehensive News Analysis

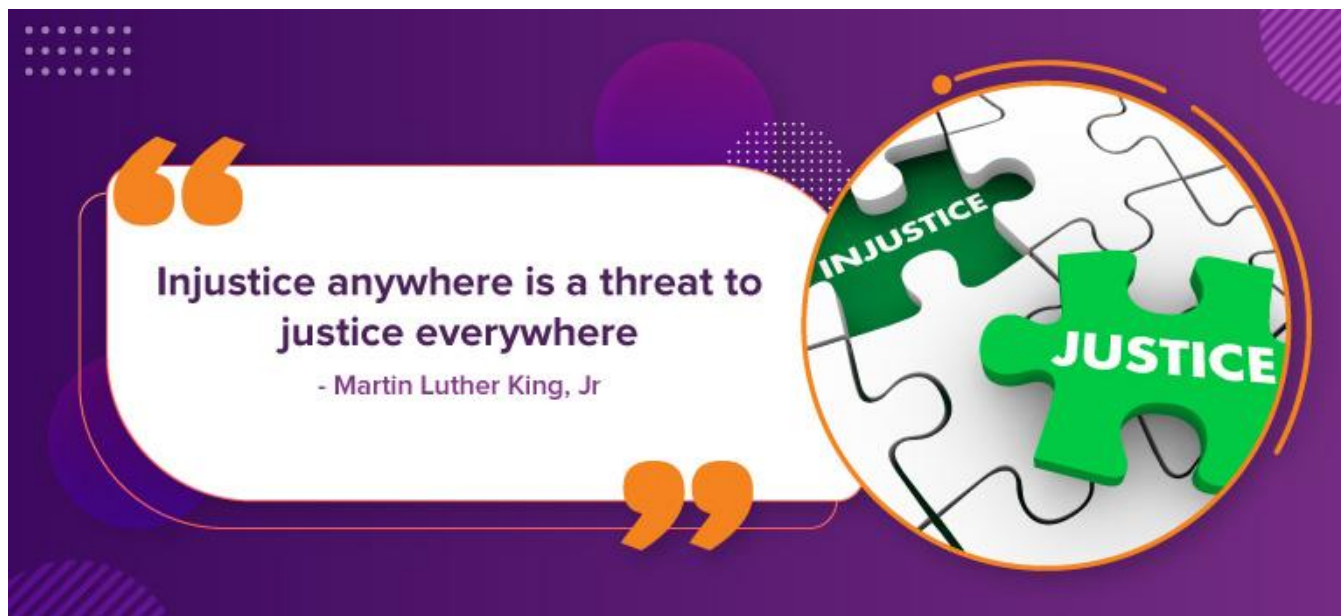


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I. UPSC Mains Practice Questions**A. GS 1 Related**

Nothing here for today!!!

B. GS 2 Related

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C. GS 3 Related**Category: SCIENCE AND TECHNOLOGY****1. The search algorithm in action**

Syllabus: Science and Technology - developments and their applications and effects in everyday life.

Mains: What are algorithms, their working, and associated concerns

Context:

- Recently, U.K.'s digital watchdog said they will take a closer look at algorithms, seeking views on the benefits and risks of how sites and apps use algorithms, etc.

What is an algorithm and how do they work?

- An algorithm is a series of instructions which can be used to perform a calculation, find answers to a question or solve a problem.
- Search engines use a number of algorithms to perform different functions prior to displaying relevant results to an individual's search request.
- Tech giant Alphabet Inc's Google search engine provides results to consumers with the help of its ranking systems, which are composed of a broad set of algorithms.
- Algorithms are often built using historical data and for specific functions. Once developed, they go through frequent updates from the companies to enhance the quality of search engine results presented to users.

What are the concerns?

- **Illegal Surveillance:** The search giant's trackers have allegedly been found on a majority of the top million websites. This means they are tracking all activities regarding your search on the internet.
- **Privacy Issues:** The use of data from profiles, collected by search algorithms and search engines, directly affects the right to a person's informational self-determination.
- **Manipulate and Change Consumer Perceptions:** These search algorithms can be used to personalise services in ways that are difficult to detect, leading to manipulated search results to artificially change consumers' perceptions.

Nut Graf

Algorithms play a crucial role for search engines as they process millions of web searches every day. With the quantity of information available on the internet growing steadily, search algorithms are becoming increasingly complex, raising privacy and other concerns and drawing the attention of regulators.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: ECONOMY

1. Powering up after the power crisis shock

Syllabus: Infrastructure: Energy

Mains: Power crisis in India - Reasons and recommendations.

Context:

- Power crisis in India characterized by large demand - supply mismatch in power.

Reasons for the power crisis:

Failure to consider upcoming electricity demand growth:

- The power supply position had been comfortable in the last few years and in fact India had surplus capacity. This had given rise to complacency in planning for future electricity demand growth.

Sharp spike in electricity demand:

- While the electricity demand growth had been lower than expected in the previous years due to slower and **less energy-intensive economic growth**, the **robust economic recovery after the pandemic** and the ongoing heat wave like conditions have resulted in increased power demand.
- With the increase in income levels and the consequent increase in the use of air-conditioners and other electrical appliances, there have been rising daily and seasonal peaks.

Challenges in the generation and distribution segments:

- Many coal and gas-based power plants have become **non-performing assets** while many Discoms have been suffering from financial burdens. This has adversely impacted the power sector in India.

Disruption in supply chain:

- The disruption in **supply chain of coal** due to both domestic as well as global reasons has impacted the thermal power production in India, which accounts for the major share of power supply.

Recommendations:

Short term:

- To meet the short-term spikes in power the **existing gas-based power plants** which can run on imported liquefied natural gas needs to be operationalized.
- To meet the coal shortage, **coal could be imported** from other countries.

Long term:

Continuous updating of demand growth projections:

- The Discoms should constantly **update their demand growth projections both in quantitative and qualitative terms**. Subsequently, they should plan their supply arrangements. The State Regulatory Commissions should hold the Discoms accountable in these functions.
- **Demand growth projections and supply arrangements** need to become central to the regulatory process.

Ensuring sufficient buffer for supply side:

- Ensuring reliable supply to meet unanticipated peaks, as have been observed in the current scenario requires making **supply arrangements with reserve margins** and also arranging for **peaking power arrangements** even though they add to the price of electricity.

Closing demand-supply mismatch:

- India needs to transition towards a **demand-based time of day rates of electricity** for both generators as well as consumers. This would help incentivize power generation during peaks while disincentivizing power demand during the peak thus moderating the mismatch in supply-demand. This **peak demand moderation and flattening of the demand curve** through a change in consumer behaviour is the need of the hour.
- This would need a strong price signal, a large differential in peak and off-peak rates to change the consumer behaviour. Other options like levying of peak demand surcharge should also be investigated.

Appropriate pricing policy:

- There is a need to have a **relook at the free supply of electricity to farmers and households**. The subsidies being provided should not be based on political compulsions but on the economic utility of such subsidies. There is the need to have discussion on the relative benefits from subsidies in different areas and their affordability.
- There is the need to move towards **cost-reflective power tariffs**.

Strengthening contractual terms:

- Given the examples of generators having defaulted contractually in supplying power to Discoms, and in some occasions Coal India or the Indian Railways having defaulted on coal deliveries, there is a need to **tighten the contractual terms with enforceable financial penalties**.

Increasing storage capacity:

- Discoms should work towards options for storage of electricity. **Electricity storage** may even turn out to be the cheaper option in the short run to meet peaking power needs.
- Also, large-scale grid storage is essential to accommodate for the envisioned goal of creating 500 GW of renewable energy capacity in the coming years.

Nut Graf

Under the Electricity Act, provision of reliable quality and round-the-clock electricity to all consumers to meet full demand is a major aspect. The frequent power outages stand contrary to this provision.

Category: INTERNATIONAL RELATIONS

1. A dissonance in India-German ties

Syllabus: Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Mains: India-Europe relations in general and India-Germany relations in particular - Significance, challenges and recommendations

Context:

- Indian Prime Minister's visit to Germany as part of the three-nation Europe tour.

Background:

- India's neutral stance on the Russia-Ukraine conflict** has impacted the way the [European Union](#) countries view India's role in global affairs and there have been considerable discussions on future engagement with India.
- India's role as a major power and the largest democracy are being projected by the Western countries to pressurize India to make a shift from its position on Russia and join hands with the European countries and the U.S. in the ongoing conflict.

Significance of Europe-India alliance:

China factor:

- Given increasing **Chinese assertiveness along the Indian border** as well as the larger region, India would be best advised to manage a delicate balance between its ties with Russia and the European Union countries as there is **greater alignment of policy when it comes to China among India and European Union** countries rather than Russia.

Indo-Pacific policy:

- European countries like Germany have been reaching out to other Asian countries like Japan. This is indicative of European countries reaching out to Asian powers as part of their Indo-Pacific policy.

- Given that India's very own Indo-Pacific policy also seeks to maintain its traditional influence in the region, cooperation and collaboration between India and European Union countries would result in mutual benefits for both sides.

Recommendations:

Identifying convergence of views:

- Given the divergence in views and policies towards the ongoing Russia-Ukraine crisis between India and European Union countries, there is a need to find other areas for convergence of views. The **geopolitical convergence of countering the rise of China** particularly in the Indo-Pacific could act as the gel for India-Europe relations.

Continued engagement with Europe:

- Despite some divergence of views on important geopolitical issues, **India should continue its bilateral engagement with countries** such as Germany, France and Denmark. This could involve diplomatic engagement as well as robust economic relations in the form of trade relations.
- When it comes to the bilateral relations with Germany, India should try and find convergence in issues of **economics, technology and climate change**, to strengthen the 'Strategic Partnership' between the two countries.

Also read - [India - Germany Relations](#)

Nut Graf

India-Europe relations in general and India-Germany relations in particular are yet to achieve their full potential. Also, the shifting geopolitical alliances and realignments provide space for major powers such as Germany and India to emerge as important poles in shaping the new world order and bringing much needed peace and stability.

2. The importance of emigrants

Syllabus: *Effect of Policies and Politics of Developed and Developing Countries on India's interests, Indian Diaspora.*

Prelims: *Government initiatives aimed at the migrant worker population*

Mains: *Significance of the large Indian diaspora for the country; Challenges faced by the migrant workers and recommendations.*

Indian Diaspora:

- According to the Ministry of External Affairs, there are over **4 million Non-Resident Indians worldwide**.
- Among this population, the **largest share of around 64% live in the [Gulf Cooperation Council \(GCC\)](#) countries**, with UAE accounting for the largest proportion. Other important destination countries for Indians are the U.S., the U.K., Australia, and Canada.
- Notably, every year, about 2.5 million workers from India move to different parts of the world on employment visas.

Significance for India:

Remittances:

- As per a **World Bank Group report (2021)**, **annual remittances transferred to India are estimated to be \$87 billion**, which is the highest in the world. These remittances contributed to about **3% of Indian GDP**, as per a World Bank report. This contribution to GDP notably is much lesser compared to other countries like Nepal, Sri Lanka and Pakistan.
- These remittances are a major contributor to India's socioeconomic **development**.
- Notably, remittances in India have been substantially higher than even Foreign Direct Investment (FDI) and the flow of remittances is much less fluctuating than that of FDI.

Soft power:

- The important role being played by the Indian diaspora in the socio-economic development of the destination country augurs well for India's soft power in global affairs.

Challenges:

- As per [International Labour Organization](#) estimates, almost 90% of the Indian migrants who live in GCC countries are **low- and semi-skilled workers**. These workers are **vulnerable to exploitation in the form of unsafe environment of work, low salaries, etc.**

Recommendations:

Promoting labour mobility:

- India should work towards increasing incoming remittances. To realize this, appropriate measures such as reducing the cost of recruitment and the cost of sending remittances back to India should be taken. India should try and replicate the **Philippines' model of promoting labour mobility**.

Ensuring safety and wellbeing of migrant population:

- The safety and well-being of migrant labour should remain a top priority for the government. The emphasis should be on **reducing informal/undocumented migration**.

Empowering the migrant labour force:

- Initiatives directed at skilling of the migrant labour force like **skill up-gradation, foreign language training and pre-departure orientation** can be of great help for such workers.

Government initiatives:

- Setting up of the **grievance redressal portal 'Madad'** to offer better protection support and safeguard in case of vulnerabilities.
- Proposal for **Emigration Bill, 2021** which aims to integrate emigration management and streamline the welfare of emigrant workers.

Nut Graf

The large Indian diaspora is significant for India and all measures should be taken to protect and promote the safety and wellbeing of the migrant worker population.

F. Prelims Facts

1. The standard model of particle physics gets a jolt

Syllabus: *GS3: Science and technology: Science and Technology - developments and their applications and effects in everyday life.*

Prelims: *Standard Model of Elementary Physics*

Context:

- Researchers announced that they have made a precise measurement of the mass of the W boson which did not match with the estimates from the standard model of particle physics.

W and Z bosons:

The W and Z bosons are vector bosons in particle physics that are collectively known as the intermediate vector bosons. A group of elementary particles are known as W and Z bosons. They are

bosons, which means their spin is either 0 or 1.

What is the standard model of elementary particle physics?

- The standard model of elementary particles is a physics theoretical construct that describes the interaction of matter particles.
- It is a description in which mathematical symmetries connect the world's elementary particles, much like a bilateral (left–right) symmetry connects an object and its mirror image.
- There are a finite number of fundamental particles in this model, which are represented by the characteristic "eigen" states of these groups.

Issues with Standard Model:

- There are four fundamental forces of nature — electromagnetic, weak nuclear, strong nuclear and gravitational interactions.
- The standard model is thought to be incomplete because it gives a unified picture of only three of the forces and totally omits gravity.

Symmetries related to particles:

- The symmetries of the standard model are known as gauge symmetries.
- They are generated by “gauge transformations” which are a set of continuous transformations. Each symmetry is associated with a gauge boson.

2. Operation Dudhi: Assam Rifles honours surviving soldiers

Syllabus: GS3: Security Challenges: Internal security challenges

Prelims: Operation Dudhi

Context:

- The paramilitary force Assam Rifles felicitated the surviving soldiers of Operation Dudhi.

Operation Dudhi:

- Operation Dudhi was a counterinsurgency operation undertaken by Assam Rifles during its tenure in Jammu and Kashmir.
- It was conducted by 15 soldiers of the Assam Rifles' 7th Battalion led by Naib Subedar Padam Bahadur Chhetri in 1991.

1. Amid rising violence, Mahinda Rajapaksa quits as Sri Lanka PM

- Sri Lanka's Prime Minister Mahinda Rajapaksa resigned his office hours after his supporters brutally assaulted peaceful anti-government protesters amid a worsening economic crisis in the island.
- The resignation was accepted and consequently, the Cabinet stood dissolved as per the Sri Lankan Constitution.

Also watch: https://youtu.be/wa2cst_YT2Y

2. How the PM and CJI agree on outdated laws

- The Chief Justice of India(CJI) N.V. Ramana criticised the government's abuse of the sedition provision in the [Indian Penal Code \(IPC\)](#).
- He had questioned the government's reliance on a colonial law, which was once used by the British against Mahatma Gandhi and Bal Gangadhar Tilak.
- Prime Minister Narendra Modi's belief that the nation should not suffer the "colonial baggage" of "outdated laws" during Azadi Ka Amrit Mahotsav mirrors oral remarks made by CJI on sedition.

3. Andaman to get gas-based power plant

- The Union Environment Ministry has approved an exemption to the laws governing the regulation of coastal zones.
- It has paved the way for gas-powered plants to be set up on the Andaman and Nicobar Islands.
- The Island Coastal Zone Regulation (ICRZ), 2019, limits infrastructure development on vulnerable coastal stretches.
- The Andaman and Nicobar Coastal Zone Management Authority (ANCZMA) has recommended that gas-based power plants be permitted within the Island Coastal Regulation Zone area only on islands with geographical areas greater than 100 sq. km.
 - ANCZMA is an expert body of the Ministry of Environment and Forests.

H. UPSC Prelims Practice Questions

Q1. Consider the following statements with respect to the MP Local Area Development Scheme (MPLADS):

1. The MPLADS fund is released to the district authority and the MPs only have the power to recommend development work.
2. Interest that the MPLAD fund accrues is added to the MPLADS account and can be used for the development projects.
3. It is a central sector scheme.

Which of the given statements is/are INCORRECT? (Level: Medium)

- a. 1 and 3 only
- b. 2 only
- c. 1 and 2 only
- d. None of the above

Answer: b

Explanation:

- The Local Area Development Scheme known as MPLADS is a government scheme launched on 23rd December 1993.
- Under this scheme, each MP can recommend development programmes involving the expenditure of Rs 5 crore every year in their constituencies. **Hence Statement 1 is correct.**
- This **central sector scheme** was developed as an initiative to enable the parliament members to recommend developmental work in their constituencies based on locally felt needs. These developmental works mainly focused on the areas of national priorities such as drinking water, education, public health, sanitation, roads, etc. **Hence Statement 3 is correct.**
- Parliamentarians cannot utilise interest accrued on MPLADS funds for development works with the Centre revising the norms for utilisation of money under various central sector schemes. **Hence Statement 2 is incorrect.**

Q2. Which of the following cyclones and the countries that named them is/are correctly matched?

Cyclone	Named by
1. Gulab	Oman
2. Shaheen	Pakistan
3. Tauktae	Myanmar
4. Asani	Sri Lanka

Options: (Level: Difficult)

- a. 4 only

- b. 2 and 3 only
- c. 3 and 4 only
- d. 1, 2, 3 and 4

Answer: c

Explanation:

- Gulab was named by Pakistan.
- The name Shaheen, provided to the cyclone by Qatar, means falcon in Arabic.
- Cyclone Tauktae was named by Myanmar.
- Sri Lanka gave the name Asani to the recent cyclone.
- **Hence option C is the correct answer.**

Q3. 'Dhaincha', 'Pillipesara', 'Cowpea' often seen in the news are: (Level: Medium)

- a. Genetically engineered crops
- b. Green Manure
- c. Nano Fertilizers
- d. Bio Fertilizers

Answer: b

Explanation:

- Green undecomposed material used as manure is called green manure. It is obtained in two ways: by growing green manure crops or by collecting green leaves (along with twigs) from plants grown in wastelands, field bunds and forests.
- The plants that are grown for green manure are known as green manure crops. The most important green manure crops are **sunhemp, dhaincha, pillipesara, clusterbeans and Sesbania rostrata.**
- **Hence option B is the correct answer.**

Q4. The standard model of particle physics considers which of the following fundamental forces of nature?

- 1. Gravitational Force
- 2. Electromagnetic Force
- 3. Strong Nuclear Force
- 4. Weak Nuclear Force

Options: (Level: Medium)

- a. 1 and 2 only
- b. 2, 3 and 4 only
- c. 1, 2 and 3 only
- d. 1, 2, 3 and 4

Answer: b

Explanation:

- The standard model of elementary particles is a physics theoretical construct that describes the interaction of matter particles.
- There are four fundamental forces of nature — **electromagnetic, weak nuclear, strong nuclear** and gravitational interactions.
- The standard model is thought to be incomplete because it gives a unified picture of only three of the forces and totally omits gravity.
- **Hence option B is the correct answer.**

Q5. Brominated flame retardants are used in many household products like mattresses and upholstery. Why is there some concern about their use? (Level: Difficult)

1. They are highly resistant to degradation in the environment.
2. They are able to accumulate in humans and animals.

Select the correct answer using the code given below. (UPSC 2014)

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer: c

Explanation:

- Some wildlife suffers adverse effects when high concentrations of certain brominated flame retardants are present. **They do not degrade easily in the environment. Hence statement 1 is correct.**
- There's also concern that high levels could harm vulnerable human populations like young children, indigenous peoples, and fish eaters. They can build up in humans and animals, causing a variety of illnesses. **Hence Statement 2 is also correct.**

1. Are algorithms used by dominant search engines becoming a privacy threat? Critically examine. (10 Marks, 150 Words) (Governance and S&T)
2. Write a note on the India-German relationship highlighting the recent visit of the Prime Minister to Germany. (10 Marks, 150 Words) (IR)

