

20 Oct 2021: UPSC Exam Comprehensive News Analysis

TABLE OF CONTENTS

A. GS 1 Related

GEOGRAPHY

1. [Kerala braces for more rainfall from today](#)

B. GS 2 Related

INTERNATIONAL RELATIONS

1. [India, Israel, UAE and U.S. launch quad forum](#)

POLITY AND GOVERNANCE

1. [PM orders drive to cut red tape](#)

C. GS 3 Related

SCIENCE AND TECHNOLOGY

1. [EU food recall linked to GM rice from India](#)

SECURITY

1. [‘Chinese patrolling slightly up in east’](#)

D. GS 4 Related

E. Editorials

INTERNATIONAL RELATIONS

1. [The other Quad](#)

SCIENCE AND TECHNOLOGY

1. [A global player in solar power](#)

F. Prelims Facts

1. [Delhi reports this year’s first dengue death](#)

G. Tidbits

1. [Bhaskarabda to be added to official calendar of Assam](#)
2. [The overlooked epidemic](#)

H. UPSC Prelims Practice Questions

I. UPSC Mains Practice Questions

Download the latest monthly updates at BYJU'S IAS & prepare for UPSC Mains 2021!

[Yojana Gist](#)

[Kurukshetra Gist](#)

[Current Affairs Magazine](#)

A. GS 1 Related

Category: GEOGRAPHY

1. Kerala braces for more rainfall from today

Read more on this topic covered in [Oct 18th, 2021 CNA](#).

B. GS 2 Related

Category: INTERNATIONAL RELATIONS

1. India, Israel, UAE and U.S. launch quad forum

Context:

India, Israel, the United Arab Emirates and the United States have decided to launch a new quadrilateral economic forum.

Details:

- The newly announced quadrilateral meeting between India, Israel, the UAE and the U.S. is a forum for economic cooperation for the moment.
- The quadrilateral builds on ongoing cooperation between the U.S., Israel and the UAE after the [Abraham Accords](#) last year, and the India, Israel and UAE cooperation that was subsequently launched.
 - Through this process, the Israeli government normalised relations with Morocco, Sudan and Bahrain.
- The grouping has decided to establish an international forum for economic cooperation, and specifically discussed possibilities for joint infrastructure projects.
- Deepening of maritime cooperation, enhancing connectivity, transport and digital infrastructure topped the agenda of discussion.
- The ministers discussed expanding economic and political cooperation in the Middle East and Asia, including through trade, combating climate change, energy cooperation, increasing maritime security and ways to counter the COVID-19 pandemic.

- However, the quadrilateral meeting did not discuss the issue of Palestine and resuming the “Middle East peace process”, although the Joe Biden administration has expressed support for a “two-state solution”, that is in line with India’s broader position.

Read more on the [Israel Palestine conflict](#) in the linked article.

What is its significance for India?

- India, the UAE and Israel have already enhanced trilateral cooperation, especially in trade and investment.
- Though India’s focus over the last few years has been the east, West Asia looms large on India’s horizon.
- It is the source of 60% of India’s oil and gas and the remittances from the large Indian Diaspora in the region is the largest contributor to India’s healthy foreign exchange reserves. India cannot afford to jeopardize either.
- Therefore, India must not only be engaged with this region but also ensure that regional stability and security is maintained.

Category: POLITY AND GOVERNANCE

1. PM orders drive to cut red tape

Context:

Prime Minister Narendra Modi has directed all government departments to have a fresh look at all existing processes and scrap unnecessary paperwork and compliances, as part of a special spring-cleaning exercise this month.

Details:

- The timely and effective disposal of public grievances, references from MPs and State Governments, inter-ministerial consultations, parliamentary assurances, etc. is an important part of the work of Ministries and Departments.
 - Files must neither be prematurely destroyed nor kept for periods longer than necessary.
- During the special campaign, all-out efforts will be made to dispose of the identified pending references.
- The special campaign would be monitored by the Department of Administrative Reforms and Public Grievances (DARPG) in the Ministry of Personnel, Public Grievances and Pensions.
- Cabinet Secretary has asked each department to weed out old files, clear all pending public grievances and references from MPs and States, while endeavouring to meet any assurances made to Parliament as part of a special campaign.
- Secretaries have been asked to monitor the progress on resolving pending issues on a daily basis and send a weekly report to the DARPG.
- In addition, the existing processes would be reviewed with a view to reducing compliance burden, and unnecessary paperwork done away with, wherever feasible.

C. GS 3 Related

Category: SCIENCE AND TECHNOLOGY

1. EU food recall linked to GM rice from India

Issue:

- Mars Wrigley (the world's leading manufacturer of chocolate, mints and fruity confections) has alleged that one of its ingredients – rice flour was contaminated with genetically modified (GM) rice that originated in India.
- France issued a notification for unauthorised genetically modified rice flour, identifying India as the point of origin.

India's Stance:

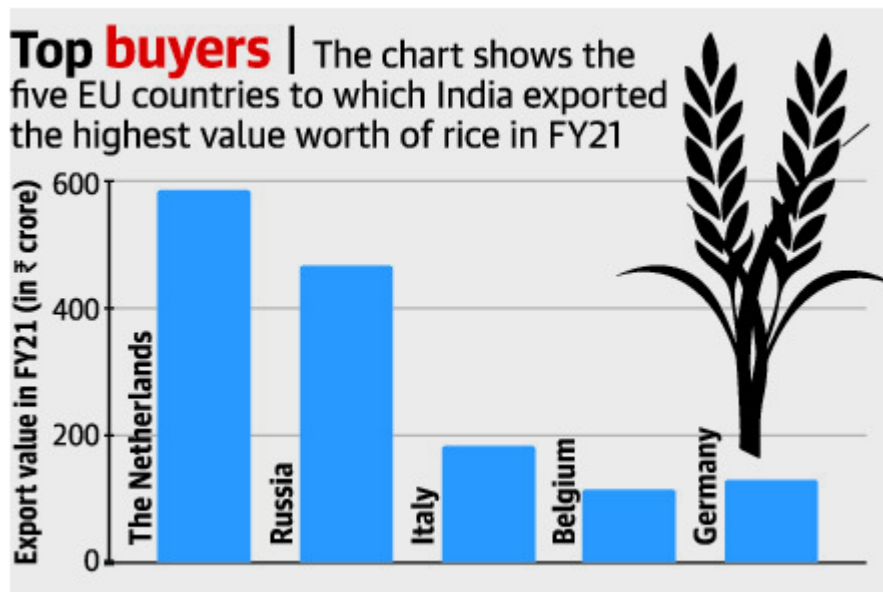
- Commerce Ministry has pointed out that GM rice is not grown commercially in India, let alone exported.
- It has promised a thorough enquiry by its agricultural exports authority.
- It has said that [APEDA](#) is collecting all the details and will enquire every aspect of it thoroughly with the technical and scientific institutions like GEAC and the strictest form of action will be taken accordingly.
- In 2007, when there was widespread concern about GM rice trials and the possibility of cross-contamination, the All India Rice Exporters Association took up the issue with the Department of Biotechnology and the [Genetic Engineering Appraisal Committee](#).
 - A policy decision was taken that field trials would not be allowed in the basmati belt, because of worries that the export crop could be affected.
 - India's Basmati belt includes Jammu and Kashmir, Punjab, Haryana, Chandigarh, Delhi, Himachal Pradesh, Uttarakhand and (western) Uttar Pradesh.

Concerns:

- Worried farmers' groups and environmental activists have noted that multiple GM rice varieties had been approved for confined field trials, and warned that any cross-contamination could dampen the country's agricultural export ambitions.
- The issue with GM field trials is that once they take place, they can contaminate crops long after the actual trials either directly or through seed leakages.

India's Rice Exports:

- India's annual rice exports amount to 18 million tonnes worth ₹65,000 crore.
- It is exported to more than 75 countries.



Source: The Hindu

Note:

- In India, the Genetic Engineering Appraisal Committee (GEAC) is the apex body that allows for the commercial release of GM crops.
- Use of the unapproved GM variant can attract a jail term of 5 years and a fine of Rs. 1 lakh under the Environment Protection Act, 1986.
- Food Safety and Standards Authority of India (FSSAI) is the authorised body to regulate the imported crops in India.

Category: SECURITY

1. 'Chinese patrolling slightly up in east'

Context:

Since the stand-off in eastern Ladakh in 2020, India and China are attempting to develop infrastructure close to the Line of Actual Control (LAC).

- Of the 3,488 km-long LAC, 1,346 km fall in the eastern sector.

Details:

- There has been a marginal increase in Chinese patrols in the eastern sector along the Line of Actual Control (LAC), while the scale and duration of its exercises have increased in their depth areas.
- The Indian Army is countering the Chinese presence by incorporating technological advancements with a specific focus on expanding surveillance capabilities like long-range Unmanned Aerial Vehicles (UAV) and radars.
- The Army's 17 Mountain Strike Corps, meant for the border with China, has been fully operationalised.

- The raising of the new 17 Mountain Strike Corps commenced in 2014.
 - At present, it is fully operationalised and all its units, including combat, combat support and support, has been fully equipped.
 - To further enhance the operational efficiency, they are looking at the Integrated Battle Group (IBG) model for the mountain strike corps so that there are better options for its employment and its areas of application.
 - IBGs are brigade-sized agile self-sufficient combat formations meant to swiftly launch strikes against adversaries in case of hostilities. The concept had been tested in exercises and fine-tuned.
- India has been enhancing surveillance both close to the LAC and in the depth areas by synergising resources right from satellites at the strategic level to troops on the ground.
 - There is a major expansion of roads in the region which will facilitate faster mobilisation of men, resources and equipment.
 - Several tunnels are under construction while a railway line is also planned to Tawang.

D. GS 4 Related

Nothing here for today!!!

E. Editorials

Category: INTERNATIONAL RELATIONS

1. The other Quad

Context:

- The Indian External Affairs Minister on an official visit to Israel took part in a **quadrilateral conference of the Foreign Ministers of India, the U.S., Israel and the UAE**.
- This virtual meet of the Foreign Ministers has given rise to speculations of the formation of a new Quad like grouping.

Background:

Changes in West Asian geopolitics and its impact on India:

- West Asian geopolitics has witnessed **massive changes in recent years**.
- **The U.S. has been seeking to lessen its footprint in the region** as part of its pivot to East Asia to tackle China's rise. This has redrawn West Asia's traditional equations.
- Following the historic **Abraham Accords**, Israel has been able to establish formal diplomatic relations with a number of countries in the region.
 - Israel and the UAE which did not even have formal diplomatic relations a year ago have witnessed growing economic and strategic bilateral cooperation.
 - Israel has also signed normalisation agreements with Bahrain.

- Such a scenario opens up opportunities for powers like India in the region. **Traditionally India's West Asia policy rested on three pillars— the Sunni Gulf monarchies, Israel and Iran.** India had to balance its relationship with these three power centres in the region given that all three were competing with each other. Now that the gulf between the Sunni kingdoms and Israel is being narrowed, **India faces fewer challenges to its regionalist approach to the West Asian region.** This has allowed India to simultaneously expand India's cooperation with Israel and the Arab world.

For more related information on this topic refer to the following article:

[UPSC Exam Comprehensive News Analysis of 20th Aug 2021](#)

Details:

- The first-ever meeting between the foreign ministers of India, Israel, the United Arab Emirates, and the United States marks an important turning point in Delhi's engagement with the Middle East.
- The Indian External Affairs Minister has hinted that there would be more meetings among the four countries.

Significance for India:

Allow for a regional foreign policy:

- The new grouping would allow India to **adopt a regional foreign policy strategy towards West Asia, transcending its traditional approach of bilateralism** wherein India had sought to build separate vibrant bilateral ties with the countries in the grouping.
- As in the Indo-Pacific, so in the Middle East, regional coalitions are bound to widen Delhi's reach and deepen its impact.

Strategic significance of the grouping:

- The strategic significance of the new grouping should not be missed out given that it excludes countries like **China which has been seeking to deepen its influence in the region** and has been trying to woo Israel and UAE even as the U.S. has sought to play only a limited role in the region.

Significance of the relationship with the members:

- India has been exhibiting a great degree of **strategic alignment with the U.S.** They form part of the Quad grouping with Australia and Japan, which have common concerns and shared interests on East Asia.
- **Israel is one of India's top defence suppliers** and it has been open to sharing critical weapon systems with India. This becomes critical given the security situation along India's borders. Also, Israel with its **technological advancement in areas such as agriculture and water management** could offer India the much needed technical know-how in these sectors.
- The **UAE is vital for India's energy security** given the fact that it accounts for a large share of fossil fuels supplies to India. UAE also **hosts a substantial number of Indian diaspora and contributes to inward remittances into India.** Given that UAE **enjoys strategic influence in the region and beyond** including in countries like Pakistan, it could offer India some leverage while dealing with Pakistan.

Potential benefits:

- The new grouping's engagement in the **areas of trade, energy, climate action and maritime security** could yield rich dividends for member countries like India and also benefit the region.
- **Combining India's scale with Israeli innovation and Emirati capital** could produce immense benefits to all three countries. Adding **American strategic support** to this would see a powerful dynamic unfolding in the region.

Challenges:

- India should be mindful of the challenges that India could face in enhancing its relationship with the emerging bloc.
 - The **regional rivalries have been intensifying** between Shia dominated Iran and Sunni dominated countries like Saudi Arabia and UAE. This could intensify further and lead to conflicts. **India should avoid getting stuck in such conflicts.**
 - Also although India, which sees itself aligned with the U.S. in the Indo-Pacific **cannot risk degrading its relationship with Iran**, India faces deepening insecurities in continental Asia after the American withdrawal from Afghanistan and it will have to **work closely with countries such as Iran to deal with the challenges emanating from a post-American Afghanistan**. Iran also contributes to India's energy security and is significant for India for connectivity to central Asia through the [Chabahar port](#) project.

Conclusion:

- It is perhaps too early to call the new minilateral with the US, UAE and Israel the “**new Quad**” for the **Middle East**. It will be a while before this grouping will find its feet and evolve.
- However, while pursuing the new grouping, **India must retain strong ties with Iran** even as it seeks to **build a stronger regional partnership with the U.S.-Israel-UAE bloc**.
- The new “Quad” in the Middle East is unlikely to be India's only new coalition in the region. It, in fact, provides a sensible template to pursue wide-ranging minilateral partnerships in the region.

Category: SCIENCE AND TECHNOLOGY

1. A global player in solar power

Context:

- The **sharp decline in the prices of solar cells has resulted in cost competitiveness of solar energy** with the more traditional thermal power. This has helped increase the uptake of solar energy in India.
- Also, the **growing emphasis on renewable energy adoption** as part of the climate action efforts to offset the emission of GHG from the more traditional fossil fuel-based energy plants has only increased the focus on solar energy.
- The article, complementing the rapid growth of solar projects in Tamil Nadu, analyzes the evolving technologies in the solar voltaic sector and makes some recommendations for further growth in the sector.

Types of solar PV technologies:

First generation solar cells:

- 'First-generation' solar cells use **mono-crystalline and multi-crystalline silicon wafers**. Crystalline silicon technologies currently occupy 95% of the global photovoltaic (PV) market with the predominance of mono-crystalline cells.
- While mono-crystalline silicon wafer is made from a single crystal of silicon (of higher purity), multi-crystalline silicon wafers are made by combining several fragments of silicon wafers.
- **Mono-crystalline panels exhibit comparatively higher efficiencies**. Thus they exhibit **greater energy yield and lower cost of energy**.
- Mono-crystalline panels are priced higher than multi-crystalline ones. However, the difference has been diminishing and is expected to attain parity soon.

Bifacial solar cells:

- Newer technologies incorporating crystalline silicon focus on bifacial solar cells, **capable of harvesting energy from both sides of the panel**.
- Bifacials can augment the power output by 10-20%.

Second generation solar PVs:

- The **thin film technologies** are classified as the 'second generation' of solar PVs.
- They are manufactured by **depositing single or multiple layers of PV material on a substrate like plastic or glass**. The PV material used includes semiconductors like Cadmium Telluride (CdTe) or crystalline silicon.
- Given their **low thickness, light weight and flexibility** they can be placed on electronic devices and vehicles thus helping augment the solar PV area.
- The **lower efficiency** of thin films as compared to that of crystalline silicon has affected their popularity and market share.

Third generation solar cells:

- New and upcoming solar cells are grouped as 'third generation' and contain technologies such as perovskite, nanocrystal and dye-sensitised solar cells.

Perovskite:

- A perovskite is a material that has the **same crystal structure as the mineral calcium titanium oxide, the first-discovered perovskite crystal**. A large number of different elements can be combined together to form perovskite structures. Using this compositional flexibility, scientists can design perovskite crystals to have a wide **variety of physical, optical, and electrical characteristics**.
- Perovskite crystals are being used in solar cells. Perovskites based solar cells have achieved cell efficiency of around 18%. They have the highest potential to replace silicon and disrupt the solar PV market, due to factors such as **ease of manufacture, low production costs and potential for higher efficiencies**.

Nanocrystal and dye-sensitised solar cells:

- Nanocrystal and dye-sensitised solar cells are variants of the thin film technology. These are in early stages for large-scale commercial deployment.
- **Nanocrystal solar cells are solar cells based on a substrate with a coating of nanocrystals.** The nanocrystals are typically based on silicon or CdTe and the substrates are generally silicon or various organic conductors.
- **Dye-sensitized solar cells** are another related approach, but in this case, the **nano-structuring is part of the substrate.**

Quantum dot solar cells:

- Quantum dot solar cells use **Graphene Quantum-dots** for solar PVs.
 - Graphene is made of a single layer of carbon atoms bonded together as hexagons.
- Quantum dot solar cells take advantage of quantum mechanical effects and offer **high theoretical efficiency of 60%** and also offer **super capacitating quality.**
 - A supercapacitor is a high-capacity capacitor with a capacitance value much higher than other capacitors, but with lower voltage limits, that bridges the gap between electrolytic capacitors and rechargeable batteries. It **typically stores 10 to 100 times more energy per unit volume or mass** than electrolytic capacitors, can accept and deliver charge much faster than batteries, and **tolerates many more charge and discharge cycles** than rechargeable batteries.

Other Improvements:

- While major attention has been on increasing the efficiency of solar PVs, considerable advances have also been made in developing solutions that **better integrate solar PVs into the grid.**
- These include **weather forecasting and power output prediction systems**; operation monitoring and control systems; and scheduling and optimisation systems. Additionally, **automatic systems have been developed for the smooth resolution of output fluctuations.** This becomes extremely relevant given the fluctuating nature of solar energy.

Recommendations:

- The article makes the following recommendations to further support and mainstream solar PV technology into India's energy market.
 - A portion of the budget for renewable energy targets should be set aside exclusively for new technologies.
 - **Grants and subsidies must be provided for the adoption of new technologies.** This will help mitigate the higher initial costs and help fast-track the adoption of new technologies in this ever-evolving solar PV sector.
 - **Sector-specific investment and incentives** should be used to address gaps in research, development, and manufacturing capabilities in the solar sector.
 - There should be **ample and affordable funding opportunities for start-ups in this sector.**

- There must be greater **industry-academia collaborations** in this sector to boost research and development.

F. Prelims Facts

1. Bhaskarabda to be added to official calendar of Assam

What's in News?

Bhaskarabda will be added to the Saka and Gregorian eras in the official calendar of the Assam Government.

What is Bhaskarabda?

- Bhaskarabda is an era counted from the date of the ascension of a seventh-century local ruler.
- Bhaskarabda began when Bhaskaravarman was crowned ruler of the Kamrupa kingdom. He was a contemporary and political ally of northern Indian ruler [Harshavardhana](#).
- Unlike Gregorian, where a day starts at midnight, the Assamese calendar begins and ends at sunrise over 24 hours.
- While the Gregorian goes by the solar cycle, the Saka and Bhaskarabda eras use a lunisolar system based on both the phases of the moon and the solar year.
- The gap between Bhaskarabda and Gregorian is 593 years.

G. Tidbits

1. Strategy meet discusses Chinese cyberattacks

What's in News?

National Security Strategies Conference.

- National Security Strategies Conference chaired by Home Minister discussed the rising cyberattacks from China on critical installations.
- The participants were told that while the Pakistani cyberattacks focused on stealing identity and personal data, the Chinese hackers were more sophisticated and they settled down in any network, striking at will.

Concerns:

- The Union Power Ministry said the government thwarted “state-sponsored” Chinese hacker groups targeting various Indian power centres in November 2020 and February 2021.
- The U.S. cybersecurity and intelligence firm Recorded Future discovered that Chinese state-sponsored actors may have deployed malware into Indian power grids and seaports after border tensions between India-China began escalating in May 2020.

2. The overlooked epidemic

- Around 1.3 million fewer cases of **Tuberculosis** were detected in 2020 compared to 2019 according to the WHO. However, the **deaths attributed to TB have risen** for the first time in the last 16 years including in India.
- This **dichotomy** could be explained on the basis of the fact that the COVID-19 pandemic resulted in reduced reporting of cases, reduced access to disease diagnostics and treatment leading to increased deaths.
- Notably, **India bears the highest TB burden among the nations**. It accounted for an estimated 28% of the new cases in 2020.

H. UPSC Prelims Practice Questions

Q.1 Consider the following GM crops and choose the ones which are *not* legally allowed to be cultivated in India.

1. Rice
2. Brinjal
3. Cotton
4. Mustard

Options:-

- a. 1 & 2 only
- b. 1 & 4 only
- c. 1, 2 & 4 only
- d. All of the above

Answer: c

Explanation:

- GM Cotton is the only genetically modified crop legally allowed to be cultivated in India.
- GM Rice, GM Brinjal and GM Mustard do not have the legal approval to be cultivated in the country.

Q.2 Consider the following statements with regards to di-ammonium phosphate:

1. DAP is the most commonly used fertilizer in India.
2. DAP (46% P, 18% N) is the preferred source of Phosphorus for farmers while urea is the preferred nitrogenous fertilizer.
3. Farmers normally apply this fertilizer just before or at the beginning of sowing, as it is high in phosphorus (P) that stimulates root development.

Which of the above statements is/are correct?

1. 1 & 2 only
2. 2 & 3 only

3. 1 & 3 only
4. All of the above

Answer: b

Explanation:

- DAP – di-ammonium phosphate is the second most commonly used fertiliser in India after urea.
- DAP (46% P, 18% N) is the preferred source of Phosphorus for farmers while urea is the preferred nitrogenous fertilizer.
- Farmers normally apply DAP fertilizer just before or at the beginning of sowing, as it is high in phosphorus (P) that stimulates root development.

Q.3 INSACOG, recently seen in the news, is

- a. ISRO's latest satellite to join the IRNSS navigation system
- b. CDAC's latest supercomputer focusing on cognitive learning
- c. Consortium of labs focusing on finding genome sequencing of SARS-CoV2
- d. Instantly rechargeable battery for electric cars

Answer: c

Explanation:

Indian SARS-CoV-2 Genomics Consortium (INSACOG) is a multi-lab agency set up by the Government of India for sequencing and analysing the genome data with respect to the SARS-CoV-2 virus.

Read more on the [Indian SARS-CoV-2 Genomics Consortium](#).

Q.4 Bhaskaravarman, the crowned ruler of Kamrupa kingdom, was the contemporary of

- a. Harshavardhana
- b. Akbar
- c. Ashoka
- d. Samudragupta

Answer: a

Explanation:

- Bhaskaravarman was the last of the Varman dynasty.
- He was perhaps the most illustrious of the kings of the medieval Kamarupa kingdom.
- He was a contemporary and political ally of northern Indian ruler Harshavardhana of Thaneswar.

Q.5 With reference to the Constitution of India, prohibitions or limitations or provisions contained in ordinary laws cannot act as prohibitions or limitations on the constitutional powers under Article 142. It could mean which one of the following? (UPSC 2019)

- a. The decisions taken by the Election Commission of India while discharging its duties cannot be challenged in any court of law.
- b. The Supreme Court of India is not constrained in the exercise of its powers by laws made by the Parliament.
- c. In the event of grave financial crisis in the country, the President of India can declare Financial Emergency without the counsel from the Cabinet.
- d. State Legislatures cannot make laws on certain matters without the concurrence of Union Legislature.

Answer: b

Explanation:

- The Supreme Court of India is not constrained in the exercise of its powers by laws made by the Parliament.
- Article 142(1) states that “The Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it, and any decree so passed or order so made shall be enforceable throughout the territory of India in such manner as may be prescribed by or under any law made by Parliament and, until provision in that behalf is so made, in such manner as the President may by order prescribe”.
- Article 142 “provide(s) a unique power to the Supreme Court, to do “complete justice” between the parties, i.e., where at times law or statute may not provide a remedy, the Court can extend itself to put a quietus to a dispute in a manner which would benefit the facts of the case.

I. UPSC Mains Practice Questions

1. Recent communal incidents in Bangladesh, targeted against religious minorities, have emerged as a major cause of concern for India. While India voices concern on these attacks, it should not appear religiously partisan. Examine. (250 words; 15 marks)[GS-2, International Relations]
2. India must retain strong ties with Iran as it seeks a partnership with the U.S-Israel-UAE bloc. Critically evaluate. (250 words; 15 marks)[GS-2, International Relations]