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# MAINS ANSWERS FOR TEST-23

08/01/2023



## Mains Q& A Test(23)- (08/01/2023)

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### Approach for the Mains Answer Writing

- **Start Your answer briefly introducing the Topic**
- **Discuss the Key points about the Topic with the Context in the Question**
- **Discuss Pro and Cons of the Topic (if applicable)**
- **Quote the Statistics (if there are any )**
- **Draw the Conclusion ( Make Sure your answer doesn't support any particular view and make it look balanced)**

## 1. Increasingly, civil servants are being charged with corruption. In this context discuss the reasons behind the prevalence of corruption in civil services. (250 words)

### Introduction

Corruption is dishonest behaviour by those in positions of power. Those who abuse their power may be individuals or they may belong to organizations, such as businesses or governments.

Corruption can entail a variety of actions, including giving or accepting bribes or inappropriate gifts, double-dealing, and defrauding investors.

### Body

#### Reasons for prevalence of corruption in civil services

**Politicization of the Civil Service:** When civil service positions are used as rewards for political support or swapped for bribes, the opportunities for high levels of corruption increase significantly.

**Lower Wages Compared to Private Sector:** Lower wages for civil servants compared to those in the private sector. Certain employees' resort to taking bribes in order to compensate for the difference in wages.

**Administrative Delays:** Delays in the clearance of files are the root cause of corruption.

**Colonial Legacy of Unchallenged Authority:** In a society which worships power, it is easy for public officials to deviate from ethical conduct.

**Weak Enforcement of Law:** Various laws have been made to curb the evil of corruption, but their weak enforcement has acted as a hindrance in curbing corruption.

### Way Forward

By establishing the Civil Service Board, the government can curb excessive political control. By simplifying the disciplinary process and strengthening preventive vigilance within the departments, it can be ensured that corrupt civil servants do not occupy sensitive positions.

It is important to emphasize value-based training to all civil servants to ensure probity in public life. Professional ethics should be an integral component in all the training courses



and call for a comprehensive Code of Ethics for civil servants, based on the recommendations of the 2nd Administrative Reforms Commission (ARC).

Governance models should change in line with the modern aspirations of our people, and that it is necessary to keep the bureaucratic system 'light, transparent and agile'. The government has launched '**Mission Karma yogi**' with an aim to build a citizen-centric and future-ready civil service for the nation.

## **2.NITI Aayog is a premiere policy think tank of the government of India and NITI Aayog has changed the fundamental nature of planning in India. Discuss? (250 words)**

### **Introduction**

The NITI Aayog was formed on January 1, 2015. In Sanskrit, the word "NITI" means morality, behaviour, guidance, etc. But, in the present context, it means policy and the NITI stands for "**National Institution for Transforming India.**" It is the country's premier policy-making institution that is expected to bolster the economic growth of the country. It aims to construct a strong state that will help to create a dynamic and strong nation. This helps India to emerge as a major economy in the world. The NITI Aayog's creation has two hubs called "**Team India Hub**" and "**Knowledge and Innovation Hub.**"

### **Body**

NITI Aayog is a premiere policy think tank of the government of India. It was established with the aim to achieve sustainable development goals by active involvement of state government in the planning process.

### **Objectives of NITI Aayog**

- To evolve a shared vision of national development priorities, sectors and strategies with the active involvement of States.
- To foster cooperative federalism through structured support initiatives and mechanisms with the States on a continuous basis, recognizing that strong States make a strong nation.
- To develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.
- To ensure, on areas that are specifically referred to it, that the interests of national security are incorporated in economic strategy and policy.

- To pay special attention to the sections of our society that may be at risk of not benefiting adequately from economic progress.
- To design strategic and long-term policy and programme frameworks and initiatives, and monitor their progress and their efficacy. The lessons learned through monitoring and feedback will be used for making innovative improvements, including necessary mid-course corrections.
- To provide advice and encourage partnerships between key stakeholders and national and international like-minded think tanks, as well as educational and policy research institutions.
- To create a knowledge, innovation, and entrepreneurial support system through a collaborative community of national and international experts, practitioners and other partners.
- To offer a platform for the resolution of inter-sectoral and inter departmental issues in order to accelerate the implementation of the development agenda.
- To maintain a state-of-the-art resource centre, be a repository of research on good governance and best practices in sustainable and equitable development as well as help their dissemination to stake-holders.
- To actively monitor and evaluate the implementation of programmes and initiatives, including the identification of the needed resources so as to strengthen the probability of success and scope of delivery.
- To focus on technology upgradation and capacity building for implementation of programmes and initiatives.
- To undertake other activities as may be necessary in order to further the execution of the national development agenda, and the objectives mentioned above.

### **Changes brought by NITI Aayog in the nature of Planning**

**Changing in policy making:** While designing strategic and long-term policies and programs for the government of India, NITI Aayog also provides relevant technical advice to the centre and states. Example: Medical education Reform.

**Bottom-up approach:** This enables to achieve sustainable development goals with cooperative federalism by fostering the involvement of state governments of India in the economic policy making process using a bottom-up approach.

**New Innovations:** At the core of NITI Aayog's creation are two hubs- team India Hub and the Knowledge and innovation Hub. The team India Hub leads the engagement of states with



the states with the central government, while the knowledge and innovation hub builds NITI's think-tank capabilities. Example: Atal Innovation Mission (AIM).

**Strategic programs:** To design strategic and long-term policy and programme frameworks and initiatives, and monitor their progress and their efficacy. The lessons learnt through monitoring and feedback will be used for making innovation improvements, including necessary mid-course corrections. Example: Education and water management.

### Way Forward

NITI Aayog could be made legally accountable to the legislature for its inability to meet the targets. This would bring in more accountability and ensure the planning body remains a non-partisan institution. The setting up of NITI Aayog has brought positive results. However, there is a need to ensure sufficient changes are brought in the planning body to ensure it can meet its objectives.

## 3. What is continental drift theory and explain the various stages of continental drift theory and discuss the various forces responsible for it? (250 words)

### Introduction

#### Continental Drift Theory

**Continental Drift:** The **movement of continents across the ocean bed** is known as continental drift. This drifting takes millions of years to complete this process.

Continental drift theory was given by **Alfred Wegener** in 1915. This theory has explained the origin of continents and ocean basins. Though it was a Dutch cartographer, Abraham Ortelius, who was the first to work on the concept of symmetrical coasts on the Atlantic Ocean's sides.

According to Wegener, all the continents formed a single continental mass which is called "**Pangaea**" which means all earth. This supercontinent was surrounded by a mega ocean called "**Panthalassa**" meaning all water.

Subsequently, **Laurasia and Gondwanaland** continued to break into various smaller continents that exist today. Thus, Wegener proposed that continents are floating and constantly drifting on the earth's surface. His hypothesis, later, became the basis of present-day **plate tectonic theory**.

## Body

### Various stages of continental drift theory

**First Stage:** The first stage occurred during the Carboniferous period, when Pangea, a supercontinent, was encircled by Panthalassa, a mega-ocean.

**Second Stage:** In the second stage around 200 million years ago in the Jurassic period, the supercontinent, Pangaea, began to split. Pangaea first broke into large continental masses as **Laurasia** and **Gondwanaland** formed the northern and southern components respectively.

**Third Stage:** In the third stage, the **Tethys Sea** progressively filled the area between Laurasia and Gondwanaland during the **Mesozoic epoch**, and it gradually broadened.

**Fourth Stage:** In the fourth stage around 100 million years ago when North and South America drifted westward, resulting in the emergence of the Atlantic Ocean. The Rockies and Andes were formed by the westward drift of North and South America.

**Orogenetic Stage:** The Orogenetic Stage in which mountain-building activity took place is the fifth stage.

### Forces responsible for Continental Drift

There are two factors that are responsible for continental drift which is as follows:

The continental drift was equatorward due to the combined action of **gravitational forces**, **pole-fleeing force**, and **buoyancy force** because the planet is not perfectly round and has a bulge at the equator.

**Note:** The 'pole-fleeing force' is caused by an increase in centrifugal force from the poles towards the equator.

The continental drift was westward due to **tidal currents** caused by the earth's rotation. However, these two factors were eventually discovered to be insufficient reasons for continent drifting, which is considered a criticism of Wegener's theory.

## Conclusion

The Continental Drift Theory was rejected by most scientists, and it was intensely disputed for decades following his death in 1930. The concept of conventional currents in the upper mantle was conceived in the 1920s. However, due to his early death, Alfred Wegener was

unable to add the concept of conventional currents as the most compelling rationale for continental movement.

#### 4. Discuss the hurdles India is facing in its pursuit of a permanent seat in UN Security Council. (250 words)

##### Introduction

India has been actively pursuing the permanent membership of the UN Security Council (UNSC). It has pushed for text-based negotiations in the UN as a step to move forward the agenda of UNSC reform. However, it is facing several challenges in doing so.

##### Body

##### **Hurdles faced by India in the pursuit of a permanent seat in UN Security Council**

**Resistance from P-5 countries** as these countries are reluctant to share the exclusive power with new entrants. Although four of the five permanent members support India's membership, it is not certain that they would accord India same powers as they enjoy.

**Absence of consensus on complex issues** such as the size of the expansion in the permanent and non-permanent categories, regional distribution, the working methods of the Security Council, its relationship with the UNGA, and veto powers.

**Opposition from other countries** – Pakistan along with the Uniting for Consensus (UFC) countries (comprising countries like Pakistan, Italy, Mexico, Egypt etc) have been leading the opposition to India's inclusion.

**Global image of India** – India is seen as a soft country, and P5 countries often question India's inability to offer and sanction extreme measures.

**India's economic contribution**- India's economic contribution to Security Council budget is very minimal, which again discredits its claim to join council as a permanent group.

##### Conclusion

Adoption of a negotiating text for Security Council reforms and re-election of Justice Dalveer Bhandari as a judge at the International Court of Justice is reflective of the support India enjoys in the world body. If a permanent seat is not available at UNSC in the short term, there are other options India can explore. One proposal is for the creation of 'semi-permanent' seats, according to which members would be elected for six-eight years and



would be eligible for immediate re-election. India's claim to permanent membership will significantly improve if it quickly grows to be an economic power.

## **5. In the light of recent controversy regarding the use of electronic voting machine (EVMs), what are the challenges before the election commission of India to ensure the trustworthiness of elections in India? (250 words)**

### **Introduction**

All of India's political parties recently voiced their concerns about the reliability of its electronic voting machines (EVMs). There have also been calls for paper ballots to be used once again. The Election Commission of India (ECI) has consistently asserted that its Electronic Voting Machines (EVMs) are distinctive and that, thanks to its security protocol and administrative safeguards in place, tampering is not possible in actual election circumstances.

### **Body**

#### **Challenges before the election commission of India to ensure the trustworthiness of elections in India**

- ✓ Increased violence and electoral malpractices under influence of money have resulted in political criminalization, which ECI is unable to arrest.
- ✓ Expressed concern against Electoral Bonds and their impact on free and fair election
- ✓ Increased criminalization of politics, Political parties outside RTI
- ✓ Election Commission is not adequately equipped to regulate the political parties. It has no power to enforce inner-party democracy and regulation of party finances. No ability to deregister parties for misconduct.
- ✓ ECI is becoming lesser independent of the Executive which has impacted its image.
- ✓ Allegations of EVMs malfunctioning, getting hacked and not registering votes, corrodes the trust of the general masses in ECI.
- ✓ Paid news continues to be a menace for the EC. While the EC has already taken up the issue with the law ministry, seeking that paid news be treated as a cognisable offence, nothing has been done so far.

### **Conclusion**

The existing position cannot sustain itself for long as the governments from time to time will try to influence the constitutional office of the Election Commission. It is time that instead of mere rhetoric over independence of the EC some substantial change is brought forward for protection of the constitutional body. Additionally, the Commission must reinvent its approach so, that bedrock of democracy doesn't shake at its foundations.

## **6. India needs to strengthen its maritime laws and regulatory mechanism. Discuss? (250 words)**

### **Introduction**

Ocean-based trade contributes to 95 per cent of India's total trade in volume and 70 per cent in value.

### **Body**

- The UNCLOS prescribes the EEZ as an area of the sea in which a sovereign state has special sovereign rights regarding the exploration and use of marine resources, including energy production from water and wind.
- It stretches from the baseline out to 200 nautical miles (370 kilometres) from the coast of the sovereign state.
- Similarly, the territorial sea (TS) as per UNCLOS, is an area extending up to 12 nautical miles from the base of a country's coastline.
- The difference between EEZ and TS is that a state has full sovereignty over the waters encompassed within the TS, whereas with regard to the EEZ, the state merely has exclusive sovereign economic rights to substances lying below the surface of the sea.
- It is a violation of Indian law, which required the US to provide prior notice before entering the Indian EEZ.
- Interestingly, the law referred to by the MEA The Territorial Waters, Continental Shelf, Exclusive Economic Zones and Maritime Zones Act, 1976 (Indian Act), in

particular Section 7, which concerns the EEZ nowhere makes a whiff of a reference to any prior notice.

- The obligation for prior notice to be given by a foreign military vessel (FMV) to the MEA, as per Section 4, Indian Act, arises only when the FMV desires to enter the Indian TS, which in any case is sovereign Indian territory.
- Furthermore, Article 58 of the UNCLOS encapsulates the principle of freedom of navigation and innocent passage in the EEZ for all vessels, including a FMV, regardless of consent from the coastal state.
- Thus, there is no iota of doubt that the US committed no illegality by entering the Indian EEZ without prior notice since as per CIL, freedom of navigation in international waters and in the EEZ is an inalienable right

## Conclusion

India needs to amend the Indian Act to require FMVs to provide prior notice before entering its EEZ. In doing so, India would be well within her rights emanating under UNCLOS, and state practice under CIL, while in no way violating the freedom of navigation principles expounded by the ICJ in the Nicaragua case. India would have a good arguable case against non-UNCLOS parties like USA by virtue of this amendment in view of the CIL status ascribed to UNCLOS duly tempered by the principle of state practice.

## 7. Write about fuel cell technology and what are the challenges for the adoption of fuel cell technology in electrical vehicles in India? (250 words)

### Introduction

#### About Cell Technology

Fuel cell technology depends on the energy of gas to get electricity cleanly and effectively. In contrast to primary fuels like coal and crude, or renewable energy sources like wind or solar energy, gas is an associate energy carrier. This suggests that gas is needed to be created from primary sources of energy, like gas, water, biomass, etc. Once procured, gas may be accustomed to providing electricity across sectors, together with industrial and

business buildings, transportation, and semipermanent grid-based energy storage in reversible systems.

Fuel cell electric vehicles (FCEVs) are unit steam-powered by gas. Like all electrical vehicles, FCEVs use electricity to power an electric motor. However, rather than victimisation electricity through batteries that draw power from the grid to operate, FCEVs generate electricity by employing a cell stack steam-powered by gas, that is held on on-board.

## Body

### **Challenges for the adoption of cell electrical vehicles in India:**

However, despite gas being a promising various fuel resolution, there area unit many challenges for Bharat to adopt this technology, a minimum of in close to future.

**Lack of infrastructure:** Infrastructure remains a significant hindrance previous to the expansion of gas cell technology steam-powered vehicles. In India, the gas cell dispensing fuel stations area unit solely a couple of, that approach less than adequate encourage the automakers and vehicle consumers to adopt gas cell technology steam-powered vehicles.

**Higher safety concern:** Safety could be a major concern around gas cell technology. gas fuel is very ignitable, even more than fossil fuels like fuel or diesel. it's not necessary to store the fuel in gas type solely, however alternative hydrogen-generating sources like methane series, propane, alcohols, or maybe regular fuel can also produce aerosolised gas within the vehicle itself. However, all of those are associated with various flammability problems and also the gas itself is very ignitable similarly, which brings the protection concern.

The possibility of electrical shock is another safety concern around gas cell technology. this technique electro-chemically combines gas with gas, and each of that area units is ignitable and generates voltage to power the vehicle and emits water rather than deadly pipage gases. Some gas cell motors run on voltages prodigious 350 volts.

Because something larger than fifty volts will stop an individual's heart, there are unit nice risks of electrical shock from a gas cell powertrain.

**Not strong system:** in contrast to the gas or oil powertrains, the gas cell powertrains don't seem to be strong, due to their delicate and complex system. These powertrain technologies demand sensitive surroundings and atmosphere, as high or low temperatures may end up in the failure of the system. In a country like Bharat, wherever it's too hot and wet at places throughout summer and extreme cold within the northern part of the country throughout summer, the probability of breakdown for these powertrains area unit pretty high.

**Quite costly:** gas cell powertrains are unit approach abundant expensive than typical burning engine technologies. These powertrains use extraordinarily rare-earth element metal like Pt, which ends within the production of gas fuel cells a great deal dearer than drilling transporting and purification of fossil fuels. whereas it's expected that in future, gas fuel cells can pay for themselves in terms of the quantity of cash they'll save, however, the vessel's direct prices drive the investors away.

### Conclusion

However, government incentives and localisation of core aggregates area units seem to cut back prices and improve the economic science of FCEV. A surge in the demand for this technology is predicted within the last half of the present decade.

The new introduced National gas Energy Mission Programme by the Prime Minister aims to bring open access to renewable energy and increase the assembly of inexperienced gas (that doesn't accept fossil fuels to be produced).

With these positive steps, one will expect a decisive move towards a property way forward for quality, with gas cell technology taking part in a predominant role across segments, publicly transport, business vehicles, and rider vehicles.

## 8. What is Modern Elizabeth era, explain the bilateral relations between India and the British during her reign? (250 words)

### Introduction

Queen Elizabeth II, Britain's longest-reigning monarch and a rock of stability across much of a turbulent century died Thursday after 70 years on the throne. She was 96.

A link to the almost-vanished generation that fought World War II, she was the only monarch most Britons have ever known, and her name defines an age: the modern Elizabethan Era.

### Body

#### Bilateral Relations during reign

- India and the United Kingdom share a modern partnership bound by strong historical ties.

- India's multifaceted bilateral relationship with the UK intensified with its up-gradation to a Strategic Partnership in 2004
- A Joint Declaration titled 'India-UK: towards a new and dynamic partnership' which envisages annual Summits and regular meetings between Foreign Ministers
- Civil nuclear energy, space, defence, combating terrorism, economic ties, science & technology, education and culture are the areas of cooperative relations between India and UK
- The UK supports India's proposal for permanent membership of the UNSC and is also an important interlocutor for India in the European Union (EU), Group of Eight (G-8), G20 and global contexts

## Conclusion

The relationship between India and the United Kingdom had seen many ups and downs but because of the charismatic nature of Queen Elizabeth- II it always becomes easy to continue good faith in the commonwealth.

“Britain and India have a long-shared history which today is a source of great strength in building a new partnership fit for this new century,” the Queen said once at Buckingham Palace addressing State Banquet for President Patil.

## 9.What is Eastern Economic Forum (EEF) and explain the importance of Indo-Pacific Economic Framework for India in the light of balance between the Eastern Economic Forum (EEF) and Indo-Pacific Economic Framework (IPEF)? (250 words)

### Introduction

#### **EASTERN ECONOMIC FORUM**

It was established in 2015 to encourage foreign investments in the RFE.

The EEF displays the economic potential, suitable business, suitable business conditions, and investment opportunities in the region.

Agreements signed at the EEF increased from 217 in 2017 to 380 agreements in 2021, worth 3.6 trillion roubles.

As of 2022, almost 2,729 investment projects are being planned in the region. The agreement focus on infrastructure, transportation projects, mineral excavations, construction, industry, and agriculture.

## Body

### **INDIA NEEDS TO STRIKE A BALANCE BETWEEN EEF AND INDO –PACIFIC ECONOMIC FRAMEWORK FOR PROSPERITY (IPEF)**

The U.S-led Indo –Pacific Economic Framework for prosperity (IPEF) and the EEF are incomparable based on their geographic coverage and partnership with the host countries.

India has vested interests in both the forums and has worked towards balancing its involvement

India has not shied away from investing in Russia –initiated EEF despite the current international conditions. At the same time, India has given its confirmation and acceptance to three of the four pillars in the IPEF.

The IPEF also presents an ideal opportunity for India to act in the region, without being part of the China-led Regional Comprehensive Economic Partnership or another regional grouping like the Comprehensive and Progressive Agreement for Trans-Pacific Partnership.

The IPEF will also play a key role in building resilient supply chains. India’s participation in the forum will help in disengaging from a supply chain that is dependent on China and will also make it a part of the global supply chain network

Additionally, the IPEF partners will act as new sources of raw materials and other essential products, further reducing India’s reliance on China for raw materials.

## **10.What is Double Asteroid redirection test mission and discuss its significance? (250 words)**

### Introduction

DART is a low-cost spacecraft.

It has two solar arrays and uses hydrazine propellant for maneuvering the spacecraft.



It also carries about 10 kg of xenon which will be used to demonstrate the agency's new thrusters called NASA Evolutionary Xenon Thruster–Commercial (NEXT-C) in space.

NEXT-C gridded ion thruster system provides a combination of performance and spacecraft integration capabilities that make it uniquely suited for deep space robotic missions.

The spacecraft carries a high-resolution imager called Didymos Reconnaissance and Asteroid Camera for Optical Navigation (DRACO).

Images from DRACO will be sent to Earth in real-time and will help study the impact site and surface of Dimorphos (the target asteroid).

DART will also carry a small satellite or CubeSat named LICIACube (Light Italian CubeSat for Imaging of Asteroids).

LICIACube is expected to capture images of the impact and the impact crater formed as a result of the collision.

## Body

### Significance

The DART spacecraft is humanity's first attempt to test a planetary defense mechanism.

Data obtained from DART's crash will be compared to the data from various computer simulations to ascertain:

If this kinetic impactor method will remain a viable option in case of an actual threatening asteroid that does end up coming Earth's way.

The mission is intended to protect the Earth, and the success of the test will demonstrate one way to protect Earth.

## Way Forward

NASA's investigation team will now observe the asteroid by relying on ground-based telescopes to confirm and determine just how much DART altered the asteroid's orbit around Didymos.

Researchers will be measuring how much the asteroid was deflected is one of the primary purposes of the full-scale test."



