PERFECT 7

March 2022 / Issue-1

The importance of caste data

Reverse Migration: Big Tech's New Strategies for cost minimisation and talent optimisation

Bilateral trade treaties as an instrument of India's economic progress

India's Digital Currency: Challenges and Prospects

Manual Scavenging As A Blow To Human Dignity

The Russia-Ukraine dispute raises questions on the relevance of international law

Pathology of school closure in India







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Mr. Vinay Kumar Singh

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PREFACE



Current Affairs has an important role in the examinations conducted by Union Public Service Commission and State Public Service Commissions. It is necessary for the candidate to have knowledge of relevant information on issues of national and international importance. Perfect 7 Magazine is being presented fortnightly in front of the students to fulfill this requirement. Preparation of civil services exam is only completed when candidates have holistic knowledge and analysis of the dynamic nature of the current affairs. 'Perfect7' keeps this vision and approach and understands the multidimensional need of students at the content level, so this magazine has presented the current affairs with relevant issues of general studies. Keeping in mind the mains exam, current articles on 7 burning issues, Ethics Case Studies, Biographies of important personalities, coverage of most useful topics of various sections of General Studies and the most important current affairs issues are being covered for Preliminary Examination in which emphasis is being given on environmental, ecology, art and culture, science and technology, economy issues. A short section on Terminology will also be part of Perfect 7 Magazine.

Brain boosters with 7 themes based graphics are being presented in a concise form to enhance the conceptual understanding of the students. Apart from this, updated information on Global Initiatives, Global Institutions, Structure of Organizations, Functioning, Important Reports, and Indices will be included in this magazine, which is asked prominently in the Civil Services Examination. To give emphasis on facts and analysis, keeping in view the trends of new nature of questions in Preliminary and Main Examination of Civil Services, an inclusive magazine is being provided to the students so that they can give the right direction to their preparation by understanding the new requirements of Civil Services Examination. We hope that Perfect 7 in its new form will prove to be very useful. Your suggestions are always welcome.

> Vinay Kumar Singh Editor DhyeyalAS



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Why in News

- Conclusion
- Supreme Court Observations
 Promises without Justifiable Data
- About Caste Census
- About Caste Census
- Importance of Caste Census
 Need for a Credible Exercise

Why in News ? • Recently, the Supreme Court upheld the 27% quota for Other Backward Classes (OBC) in the All-India Quota seats for the National

Eligibility-cum-Entrance Test (NEET).
SC reiterated that reservations for backward classes were not an exception but an extension of the principle of equality under Article 15(1) of the Constitution.

Supreme Court Observations

• The judgment highlighted how open competitive exams give the illusion of providing equal opportunity in ignorance of the widespread inequalities in educational facilities, the freedom to pursue such education, and societal prejudices.

• The Court pointed out how such disparities are not limited to the issue of access to good education or financial constraints alone, but also to the psychological and social effects of inherited cultural capital (communication skills, books, accent, academic accomplishments, social networks, etc.),

 It ensures the unconscious training of upper-caste children for highgrade performance.

o The Constituent Assembly held a similar philosophy while introducing constitutional provisions which

enable the government to make special provisions for the uplift of the "lower castes".

• Many oppose affirmative actions like reservation. They believe that such provisions only perpetuate caste differences and they call for a "casteless society".

o As Justice D.Y. Chandrachud pointed out, "castelessness" is a privilege that only the upper caste can afford because their caste privilege has already translated into social, political and economic capital.

• On the other hand, individuals who belong to the lower castes must retain their caste identity in order to claim the benefits of measures such as reservation, which recognise historic harm.

Promises without Justifiable Data

• There is a trust deficit for the state's motivations because of the caste and class politics ruling the country today.

• Political parties often promise reservation for communities on being brought to power without any credible data collection exercises to justify the decision.

• Not long ago, the Supreme Court struck down the reservation for the Maratha community in Maharashtra in excess of 50%, which was the limit

set in the Indra Sawhney case.

O It observed that "when more people aspire for backwardness instead of forwardness, the country itself stagnates which situation is not in accord with constitutional objectives".

About Caste Census

• Caste census means inclusion of caste-wise tabulation of India's population in the Census exercise, which is a decennial count of the Indian population.

• The last caste census data gathered and published correspond to Census 1931.

• The last census conducted by the British colonial government in 1941 collected caste data but did not publish the figures.

o After Independence, Census 1951, the government collected and published caste data of only SCs and STs.

• From 1951 to 2011, every census in India has published the population of Scheduled Castes and Scheduled Tribes, comprising the Dalits and the Adivasis, along with the gamut of data including religions, languages, socio-economic status, etc.

• It, however, has never counted OBC's, the lower and intermediate castes, which according to the Mandal commission make up around 52

per cent of the country's population.

All castes other than Scheduled ٠ Castes and Scheduled Tribes are counted under the general category.

• Since the Census could not be undertaken in 2021 due to the pandemic, it is set to take place in 2022.

Difference between SECC and Census:-

Census	SECC
The Census provides a picture of the Indian population	SECC is a tool to identify benefi- ciaries of state support
Census falls under the Census Act of 1948 and all data are consid- ered confidential	All the personal information given in the SECC is open for use by Gov- ernment departments to grant and/ or restrict benefits to households

0

OBCs.

Importance of Caste Census

• The absence of fresh caste census data means that the caste estimates of 1931 are being projected for formulating welfare policies in 2022.

• A caste census is likely to table a fresh and updated data set for policy making.

• The NSSO (National Sample Survey Organization) surveys have provided different estimates between 1999 and 2007, varying from about 36 per cent to 45 per cent for OBCs.

• Recently, the figures of the United District Information System for Education Plus (UDISE+) showed schooling data for each caste group.

O The UDISE+ data show OBC children comprise 45 per cent students in primary schools, SCs 19 per cent SCs and STs 11 per cent.

0 Rest 25 per cent were from the upper caste group.

Different data sets based on sample surveys might not be a true reflection of the current caste headcount in India.

These data sets also differ from the Mandal Commission estimates that form the basis of caste-based reservations and policy formulation

Census



Need for a Credible Exercise

Faith of citizens cannot be re-

stored until credible exercises of

data collection are undertaken

• Even though data concerning the

Scheduled Castes and Scheduled

Tribes have been included in the

Census, there is no similar data on

O The Socio-Economic and Caste Census (SECC) conducted in 2011

has been called "faulty" and "unre-

Unsound Mandal Commission's

Mandal Commission's recommen-

being based merely on the "personal

knowledge" of the members of the

• Requirement of Objective Evalu-

commission and sample surveys.

• In the Indra Sawhney case, the

• Restoring citizen's faith

regarding caste.

• No data on OBCs

• Faulty SECC Data

liable" an "unusable"

Recommendations

ation of Castes

dations were criticized as

Supreme Court held that the States must conclude the "backwardness" of a particular class of people only after proper assessment and objective evaluation.

It held that such a conclusion 0 must be subject to periodic review by a permanent body of experts.

• Periodic Revisions of Caste List

The National Commission for 0 Backward Classes Act, 1993, provides under Section 11 that the Central government may every 10 years revise lists with a view to exclude those classes which have ceased to be backward and include new backward classes.

• This exercise has not been done to date. Last year, many calls were made for the inclusion of caste data (including that of the OBCs) in the 2021 Census, and the matter reached the Supreme Court.

• Caste data will enable independent research not only into the question of who does and does not need affirmative action but also into the effectiveness of this measure.

As long as reservation results from violent agitations and political pressures, attempts at any affirmative action will always be under the shadow of caste and class politics.

Conclusion

• A caste census without data integrity would be much worse. The data of caste censuses have always been disputed, probably due to the contest of several vested interests in accepting the data.

Impartial data and subsequent research might save the bona fide attempts of the uplift of the most backward classes from the shadow of caste and class politics and be informative to people on both sides of the spectrum - for and against reservation.





- Vanishing language a cause of concern
- Why languages die
- Why we need to build an effective multilingual education system
- Some recent developments
- Way Forward

For centuries, India has been home to hundreds of languages and thousands of dialects, making its linguistic and cultural diversity the most unique in the world. In fact, our linguistic diversity is one of the cornerstones of our ancient civilisation. It is our mother tongue that lends expression to our vision and aspirations, our values and ideals, as also our creative and literary endeavours. In a speech some years ago, the former UNESCO Director-General, Koïchiro Matsuura, underscored the importance of mother tongue when he remarked that "the language we learn from our mothers (mother tongue) is the homeland of our innermost thoughts." He aptly described each language to be "as valuable and distinct as every irreplaceable human life".

Vanishing language a cause of concern

• While languages are among the key bridges that ensure cultural and civilisational continuity, globalisation and westernisation have impacted not just the growth but also the survival of many of our dialects in this rich cultural and linguistic tapestry.

• In November 1999, the UNESCO General Conference approved the declaration of February 21 as International Mother Language Day, in response to the declining state of many languages.

• According to the UN agency, at least 43% of the estimated 6,000 languages spoken in the world are endangered — an alarming figure indeed.

Why languages die? Economic success

• Speakers of a minority language may, decide that it is better for their children's future to teach them a language that is tied to economic success.

• For example, the vast majority of second-generation immigrants to the United States do not speak their parents' languages fluently. It is economically and culturally more beneficial to speak English.

Migration

• Migration also plays a large role in language change and language death. When speakers of Proto-Indo-European migrated to most of Europe and large parts of Asia between 6,000 and 8,000 years ago, they probably brought about massive language change and language death.

Lack of script

• Schools and colleges were established only in the official languages. Languages without scripts had no place in the education system. As a result many languages like Gondi, Bhili and Santhali have become now a minority language.

This year's subject

The theme of International Mother Language Day in 2022 — "Using Technology for Multilingual Learning: Challenges and Opportunities" - is one of special relevance to us.

• The central idea is to leverage technology to support and enrich the teaching-learning experience on a multi-lingual level.

• It also aims at achieving a qualitative, equitable and inclusive educational experience. Inevitably, the widespread use of technology would fast-track development.

• When applied to Indian classrooms, a multi-lingual approach would also create new pathways of learning by addressing the emerging challenges on a regional and global scale. Seen in its entirety, this is in line with Prime Minister vision of "sabka saath, sabka vikas, sabka vishwas".

• Multilingual education predicated on the increasing use of one's mother tongue is a key component of inclusion in education.

Mother Tongue and NEP

It would be pertinent to note that the National Education Policy (NEP) 2020 is a visionary document which encourages the use of mother tongue as the medium of instruction till at least Class 5 but preferably till Class 8 and beyond.

• In drawing up a road map for the future, the NEP seeks to tailor the teaching and learning process and modify it by making it holistic, value-based and inclusive. The use of mother tongue in teaching is bound to create a positive impact on learning outcomes, as also the development of the cognitive faculties of students.

• There is a pressing need to create and improve scientific and technical terminology in Indian languages. This would help transform the educational experience by making existing knowledge systems in a range of disciplines accessible to learners.

It would be relevant to recall the • words of the renowned physicist. Sir C.V. Raman, who observed with great clarity and vision that "we must teach science in our mother tongue. Otherwise, science will become a highbrow activity. It will not be an activity in which all people can participate."

Why we need to build an effective multilingual education system?

Sir C.V. Raman's observation has ٠ a prophetic ring of truth when we see it in the light of the fact that we have been able to create a large English-based education system which includes colleges that offer courses in medicine and multiple disciplines of engineering. This impressive system paradoxically excludes a vast majority of learners in our country from accessing higher education.

It is important to bear in mind that in a survey conducted by the All India Council for Technical



Education (AICTE) in 2020 involving over 83,000 students, nearly 44% of students voted in favour of studying engineering in their mother tongue, highlighting a critical need in technical education.

• Learning in (your) mother tongue is at the core of building a sense of self-esteem and identity. While I feel that one must accord equal respect to all languages, there is a tendency, which must be noted with regret, among some educators and parents to take a condescending view of education in Indian languages in preference to English language learning.

As a result, children's access to their mother tongue becomes restricted, leading to a sort of socio-cultural rootlessness, especially if corrective steps are not taken. We have to teach our children not to mistake competence in English to be a yardstick of intellectual superiority or as a prerequisite for achieving success in life.

Some recent developments

In this context, the collaboration between the AICTE and IIT Madras to translate some courses on the central government's e-learning platform, Study Webs of Active Learning for Young Aspiring Minds (SWAYAM) into eight regional languages such as Tamil, Hindi, Telugu, Kannada, Bengali, Marathi, Malayalam and Gujarati. is commendable.

• Such tech-led initiatives will serve to democratise higher education. At

the same time, the decision of the AICTE to permit B. Tech programmes in 11 native languages, in tune with the NEP, is a historic move which would open the door for students to a wide range of opportunities; the languages are Hindi, Marathi, Tamil, Telugu, Kannada, Gujarati, Malayalam, Bengali, Assamese, Punjabi and Odia.

Way Forward

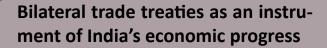
Our policy-planners, educators, parents and opinion leaders must bear in mind that when it comes to education in mother tongue and local languages, we can take the example of European countries as well as Asian powers such as Japan, China and Korea, among others.

According to the Language Census, whose findings were widely reported in 2018, India is home to 19,500 languages or dialects, of which 121 languages are spoken by 10,000 or more people in our country.

• It is our collective responsibility to revive and revitalise the 196 Indian languages which fall under the "endangered" category.

Let us not forget that every single language constitutes a cultural crucible which stores the distilled knowledge and the wisdom of our collective consciousness - our values, traditions, stories, behaviour and norms, proverbs, sayings and idioms. Co-existing over centuries, borrowing from and nurturing each other, our languages are interwoven with our individual, local and national identity.





- Context
- Introduction
- Some Bilateral agreements signed by India in recent times
- Different types of bilateral trade agreements
- Conclusion

Context

• India has been continuously increasing bilateral trade treaties in the recent past. These treaties will be extremely effective as an instrument of India's economic progress in the post-coronavirus world.

Introduction

For some time the whole world including India was affected by the Corona. During this time economic activities were decreasing and expenditure was increasing due to which a situation of economic crisis had arisen. Now after Corona, all the countries are moving ahead on the path of economic progress. India is also making significant progress in this direction. Recently, many bilateral treaties have been signed by India, which are becoming an indicator of India's economic progress in the post-coronavirus world.

Some Bilateral agreements signed by India in recent times:

India-UK Early Harvest Agreement: Negotiations for a formal free trade agreement have been initiated in India and the United Kingdom. This talk aims to conclude early harvest agreements (limited trade agreements) in a few months. The goal of this interim agreement is to have a free trade agreement for 65% of goods and 40% of services. There is a possibility of free trade of 90% of the goods upon completion of the agreement. Early Harvest Agreements are used to initiate bilateral trade between two countries on the restricted list of goods and services. It is considered the initial phase of a comprehensive free trade agreement.

India-Australia CECA Agreement

It was recently stated by Canberra's Minister of Trade, Tourism, and Investment that Australia is committed to an "interim" Free Trade Agreement (FTA) with India. In this context, India and Australia will sign the CECA agreement which aims to provide an institutional mechanism to promote and improve trade between the two countries. Bilateral trade in goods and services between the two countries will increase from US\$ 10.12 billion in 2007 to US\$ 10.12 billion in 2020. US\$ 18.08 billion in India. Therefore, this situation is a good position to move forward on a free trade agreement between the two countries.

India-UAE CEPA Agreement:-

India and the United Arab Emirates signed a Comprehensive Economic Partnership Agreement (CEPA). This is the first agreement to be signed by India in this area. The agreement is expected to increase bilateral trade from \$60 billion to \$100 billion in five years. Intellectual property rights, also refers to the regulatory dimensions of business.

Apart from talks with the United Arab Emirates, India has long-standing talks with Canada. India's CEPA agreements with South Korea and Japan are under implementation. India is also considering a bilateral agreement with Bangladesh.

Different types of bilateral trade agreements:

• Free Trade Agreement: A free trade agreement is an agreement in which two or more countries agree to provide preferential trade terms, tariff concessions, etc. to the partner country. Here a negative list of products and services is maintained by partner countries to which the terms of the FTA do not apply, so it is more comprehensive than in a preferential trade agreement. India has negotiated FTAs with several countries for example Sri Lanka and ASEAN. However, India has also pulled out of the RCEP, a regional free trade agreement proposed by ASEAN.

• **Preferred Trade Agreement:** In this type of agreement, two or more partners give a preferential right of entry into certain products. This is



done by reducing the tariff on an agreed number of tariff lines. Here an affirmative list, i.e. the list of products to which both the partners have agreed to provide preferential access, is prescribed. Tariffs can be reduced to zero for some products in PTA also. India signed a PTA with Afghanistan.

Comprehensive Economic Partnership Agreement: These are more comprehensive than the FTA. CECA/ CEPA also refers to the regulatory aspects of the business. CEPA covers negotiations on trade in services and investment and other areas of economic partnership. It also refers to agreements in areas such as trade facilitation and customs cooperation, competition, and IPR. India has signed CEPA with South Korea and Japan.

Early Harvest Scheme: Early Harvest Scheme (EHS) is the precursor to FTA/CECA/CEPA between two trading partners. For example, the Early Harvest Scheme has been introduced for RCEP. At this stage. the negotiating countries identify certain products for tariff liberalization until the conclusion of the actual FTA negotiations. Thus an early harvest plan is the first step towards enhanced engagement and trust-building. Recently, India has held talks with Britain on the Early Harvest Scheme.

Relevance of bilateral trade agreements

In the recent past, protectionist ten-

dencies have been increasing all over the world. This protectionism trend will negatively affect globalization. Bilateral agreements become important to avoid the economic impact of this protectionist trend.

• Recently India has withdrawn its name from RCEP (Free Trade Agreement proposed by ASEAN). Due to this India has been deprived of a big market now. Therefore, India will be able to compensate for this loss through bilateral trade agreements.

• The economic progress of all countries was affected during the Corona period. Many countries have turned to protectionism. During this, India also planned an ambitious self-reliant India. Along with the self-reliant India scheme, Make in India is an export-oriented campaign, to fulfill its objectives, bilateral agreements become necessary.

• These bilateral agreements will help in achieving the ambitious target of exporting \$1 trillion of merchandise and \$1 trillion of services by 2030. Along with this, these bilateral agreements will be helpful for India to reach a 5 trillion economy in the event of de-globalization.

• At present, international organizations are dominated by western countries. India continues to have disputes with these countries over agricultural subsidies, export subsidies, etc. Bilateral agreements give India the freedom of choice so that India can take both economic progress and the welfare of the underprivileged together.

At present multilateral trade agreements are in jeopardy. Since 10 December 2019, the functioning of the Appellate Body of the WTO i.e. AB has come to a standstill due to non-completion of the quorum. The US President is not giving his assent to the names of the new members of this institution. It is affecting multilateral trade.

Decision making in multilateral agreements is very delaying. Bilateral agreements lead to quick decisions which give more impetus to economic growth.

Which areas need to be improved to take advantage of bilateral trade agreements?

• Although India continues to make bilateral agreements, India will have to improve in some areas to take real advantage of these agreements.

 India has not yet developed into a manufacturing hub. The Industries Department of India is not export-oriented. India continues to face a trade deficit. In this situation, free trade agreements can harm the local industries of India.

• To become a manufacturing hub, it is necessary that India ensure energy security. The route looks more difficult after India's claims of environmental protection are made in Glasgow.

 India has to promote manufacturing at the local level. Along with this, India will have to make such agriculture and industrial policy which will support each other.

It will be a big challenge for India to take environmental protection along with industrial policy and economic prosperity.

Conclusion

In this year's budget, the possibility of suitable provisions to increase exports was being expressed, but the budget remained silent regarding increasing exports. But opportunities are being opened up by the government by reaching economic progress and trade through bilateral agreements, which in time will help promote Indian trade, industry, manufacturing, and exports. Through bilateral agreements, the trade domination of western countries will end. but India and other countries will also get the freedom of wide choice in the era of de-globalization.





- Introduction
- What is Digital Currency
- Global Scenario of CBDC
- Challenges faced in launching digital currency
- in India
- Why should India move towards digital currency

Introduction

In the budget of this year, Union Finance Minister Nirmala Sitharaman has proposed to launch a digital currency. With the advent of bitcoin and blockchain technology, the whole world was moving towards digital currency. In such a situation, India thought of launching a digital currency to keep pace with technology. Before launching it, it will be mandatory for the Reservebank of India to evaluate its design, functionality, and utility

What is Digital Currency (CBDC):-

The cryptocurrency (virtual currency) was first introduced globally in 2009 by a person named Satoshi Nakamoto. This currency was based on blockchain technology and was part of a decentralized process. After this, the concept of digital currency was strengthened all over the world. After this, digital currencies were issued by the governments of many countries. Recently, India is also considering launching a digital currency. This digital currency is different from cryptocurrencies. Digital currencies issued electronically by the government are protected by encryption, and specific information is not available about their issuers.

The currency issued by the central

bank of a country is called CBDC (Central Bank Digital Currency). A CBDC is a virtual currency backed by a central bank. The popularity of cryptocurrencies demonstrated the importance of digital currency to the world's central banks.

Global Scenario of CBDC

• Currently 87 countries (which contribute more than 90% to global GDP) are considering CBDC. Whereas in 2020 only 35 countries were making efforts in this direction.

• Fully digital currency has been launched in 9 countries. Nigeria is the latest country to launch a CBDC, e-Naira.

• Recently a pilot project called Project Dunbar is being tested between South Africa, Singapore, Malaysia, and Australia. This will enable cross-border payments.

• Among the countries with the 4 largest central banks (USA, Euro area, Japan, and the UK), the United States lags in the launch of digital currency.

• 14 countries including China and South Korea are now in the pilot phase with their CBDC and are looking to launch it as soon as possible.

• Recently, the Finance Minister of India has announced that India will launch its digital currency by the next financial year.

Key Features of CBDC

- A central bank digital currency is a digital form of a country's fiat currency.
- CBDCs are issued and regulated by the monetary authority or central bank of a country.
- CBDCs promote financial inclusion and facilitate the implementation of monetary and fiscal policy.
- Being a centralized form of currency, the principle of anonymity does not apply to them, whereas the principle of anonymity applies to cryptocurrencies.

Digital currency in India

In the budget passed this year, Union Finance Minister Nirmala Sitharaman has proposed to launch a digital currency. Central bank digital currencies are digital tokens similar to cryptocurrencies issued by a central bank. These are measured by the value of the fiat currency of that country. However, for the launch of digital currency right now, the designing, social and economic aspects will need to be taken care of.

Challenges faced in launching digital currency in India:

• Majority of the population in

India lacks digital literacy. Simultaneously, the usefulness of digital currency is in doubt in the context of lack of internet network, non-availability of digital devices, etc.

• Being based on the decentralized system of Blockchain technology, cybercrime (hacking) in cryptocurrencies is almost impossible. Whereas CBDC will be issued by the central bank as it will be based on a centralized system.

• Still the percentage of circulation of cash in the Indian economy is high. Cash operations as a percentage of GDP are currently higher than before demonetization, despite the rise in digital transactions. India's unorganized sector and agriculture are mainly dependent on cash flow. This problem is also a challenge for digital currency.

• Presently the Indian economy is suffering from the effects of Demonetisation, GST and Corona, etc. In this situation, it is necessary to stabilize the economy before any new application.

• The privacy issue with digital currency will remain. It is noteworthy that the right to privacy is mentioned under Article 21 of the Constitution of India.

Why should India move towards digital currency?

• India is currently the youngest country. Digital infrastructure is growing rapidly in the country after the Digital India campaign. Currently, India is moving towards 5G. It is clearly showing that India's digital infrastructure is progressing and now India should move towards digital currency at par with global standards.

• India already has a robust payment infrastructure. Low transaction costs and quick turnaround in the domestic payment ecosystem have become the hallmark of the economy. The Minister of State for Electronics



and IT informed the Lok Sabha that the last few years have witnessed a manifold growth in digital payment transactions. Digital Payment Finance in India It has increased from 1,004 crores in the year 2016-17 to 5,554 crores in the financial year 2020-21.

• The number of IT professionals is increasing in India. The launch of digital currency can also generate employment for these IT professionals.

• For some time now, the government is constantly trying to organize the economy. Digital currency can play an important role in organizing the economy.

What are the facts that RBI has to keep in mind before launching digital currency:-

Selection of underlying technology:

It will be important for RBI to • choose the technology underlying the digital currency first. If a CBDC were placed on a decentralized ledger technology such as bitcoin, all users would have democratic control and financial sovereignty but at the same time, the decision-making system would be extremely slow (ie - it takes an average of 10 minutes to settle a bitcoin transaction) which could affect economic activity. will lead to delay. If this is placed on a centralized system then the problem of cybercrime can arise.

Ownership of the digital currency

• At the same time, a fundamental

problem is that if the ownership of digital currency is launched on an account-based basis, the potential risk for banks will increase. The problem will come.

Supply assurance

• If CBDCs are issued over physical currency that RBI prints and injects into the economy every year, this process will significantly expand the balance sheet. Thereafter RBI will have to take an additional amount equivalent to a government loan or any other security. This will raise concerns about how the RBI will allocate its investment portfolio. can solve.

• Along with this, it has to be ensured whether the rules of interest will apply to digital currency or not.

Public welfare

• India is a welfare state. Before implementing digital currency, India must see the economic condition of the most disadvantaged people and their impact on digital currency.

• Along with launching digital currency, the general public will have to be acquainted with cyberattacks, technical knowledge of digital currency, etc.

Conclusion

• RBI will have to look at the economic and social impact of digital currency as well as its impact on Indian society. RBI will have to do a lot of work on its design, design, usability, etc. before starting it as a pilot project first.

• Before adopting a CBDC, RBI needs to consider several aspects such as the underlying technology and the impact on cash circulation and its design. The RBI has to take into account its monetary sovereignty in determining the digital currency framework.



- Reference
- Background
- What is Manual Scavenging
- Challenges before manual scavengers
- Measures are taken to end manual scavenging
- Way ahead

Reference

After independence, there has been a vast change in the mindset of the determinants of elections in Indian democracy. But "caste" has been such a factor in the election which is present till now. We can say that the caste system has become a feature of Indian society. And the manual scavenging (the practice of manual scavenging) present as a serious effect of this caste system is still injuring human dignity.

Background

• The practice of manual scavenging has existed in India for centuries. Fashion has told in his travelogue that the people of the lower class of the society were called Chandal, they were kept separate from the society and outside the village and city. This class was considered to be untouchable and this class was mainlyengagedintheworkofcleaning especially roads, drains, and manual scavenging.

• For the first time in modern India, Mahatma Gandhi raised his voice against untouchability and inspired all the people for cleanliness himself. After independence, all the governments of India also took cognizance of this inhuman act. Former Prime Minister Manmohan Singh called it caste apartheid, while the current Prime Minister called it a stigma on his forehead. Although it was termed as a stigma by all the parties, there was no strong will by these parties to remove it.

What is Manual Scavenging:-

Manual scavenging or manual scavenging is the removal, carrying, disposal of human waste from dry toilets or open drains, sewers, etc., by a person by hand.

Manual Scavenging: India's Situation

• In July 2019, the Ministry of Social Justice and Empowerment informed the Parliament that 54,130 cases of manual scavenging have been registered in 170 districts of 18 states of the country.

• Generally only temporary people in the unorganized sector are hired for this undesirable and risky work in India. They usually come from a particular caste.

• Manual scavengers also do not have adequate safety equipment while at work. Due to this, there is a possibility of death in this work. It is estimated that every five days in India, a sanitation worker who cleans the sewer by hand dies.

• According to Human Rights Watch,

the remuneration for low-level manual cleaning work in India is also very low. In the absence of fixed income, their bargaining power also decreases. Sometimes cleaning work is done instead of necessities like food.

• Not only men but women are also employed in such work. All of them allegedly belong to the lower caste who have been discriminated against in respect of health, education, employment, land wages, etc.

• Although manual scavenging has been prohibited in India, it is still associated with the caste system and remains a stigma on human dignity.

Challenges before manual scavengers:-

Manual scavengers have to do this work at the risk of their dignity, safety, and health. Manual scavengers are vulnerable even among vulnerable workers. Many times they have to face unwanted challenges during work, but they do not have proper working conditions and protection from accidents at the workplace.

According to the recent report of the World Health Organization, the major challenges and risks faced by sanitation workers can be classified into four dimensions-

• **Health concerns:** The biggest challenge for manual scavengers is

health concerns. Due to the lack of health and safety equipment in their working conditions, the sanitation workers even die. During the cleaning of sewers, the sanitation workers come in contact with poisonous gases and harmful chemicals, due to which they have to face serious diseases.

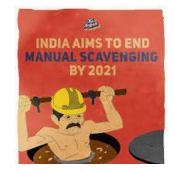
• Weak legal protection: The main reason for unorganized and temporary manual scavengers is due to the inaction of laws. The groups and organizations demanding the rights of these workers and improving their working conditions are also not strong enough. The provisions of the Prohibition of Employment and Rehabilitation Act as manual scavengers are not followed.

• **Financial insecurity:** Almost all the people employed as sanitation workers come from the so-called lower castes leading a life of extreme poverty and deprivation. Their wages are very low and uncertain due to lack of awareness and deprivation.

• **Social Discrimination:** Social discrimination against sanitation workers is deeply rooted. Even they have to face untouchability and complete social isolation.

The reason for the continuation of manual scavenging

The caste system has become an unnecessary feature of Indian society. Since manual scavenging was done and practiced for centuries only by people of a certain caste, they have also been declared socially untouchables. As a result, their socio-economic development has lagged so much that apart from the work of cleaning, they have no other way to survive. The WSO's Health, Safety, and Dignity of Sanitation Workers - An Initial Assessment Report also identified caste-based discrimination as the root of the problem.



• Despite restrictions on manual scavenging and construction of dry latrines, 1,82,505 manual scavengers and 7,40,048 households in India use manual scavengers to clean dry latrines. Among the manual scavengers, the number of women is much higher than that of men, which ranges from 95-98%, one of the main reasons is that the benefits of most rehabilitation schemes reach only men.

• According to the survey of Rashtriya Garima Abhiyan, more than 60% of manual scavengers are employed in rural areas. In rural areas, there is a lack of rehabilitation plans and awareness of rights. Due to this majority of manual scavengers are not able to participate in the rehabilitation schemes.

Measures are taken to end manual scavenging

Constitutional Efforts: In Preamble

• Establishment of EQUALITY of status and of opportunity and assuring the dignity of the individual . Fundamental Rights:

• Right to Equality- Article 14, 15, 16, 17

• Freedom of choice of occupation has been given in Article 19.

• Article 21 deals with the freedom to lead a life of dignity.

• Citizens have the right against exploitation in Article-23.

Directive principles

• Article 42 contains provisions regarding just and humane conditions of work in the Directive Principles of State Policy.

• Article 43 has been made for the provision of subsistence wages for the workers.

Legal effort

Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993.

• Under this Act, considering manual scavenging as a cognizable offense, there is a provision to impose both fine and imprisonment, which may be punishable with imprisonment for one year or with a fine of Rs 2,000 or with both.

Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013

• The state will be responsible for the rehabilitation of the manual scavengers' families under this Act. Also, providing training to manual scavengers, giving loans, providing accommodation, etc. will be the responsibility of the state.

Other efforts

• Through Rashtriya Garima Abhiyan and Swachh Bharat Abhiyan, an attempt has been made to spread awareness about this problem and to reduce the root (uncleanliness) of this problem.

Way ahead

• The efforts made by the government to end the practice of manual scavenging are commendable. But still, this practice exists, so the following measures can be accepted in this context.

• In the practice of manual scavenging, 98% of women are employed, due to which women are economically weak along with caste. Their economic empowerment will help get them out of this stigma. The Russia-Ukraine dispute raises questions on the relevance of international law

- Context
- Introduction
- What is International Law
- International law according to some other jurists
- Arguments in favor of the utility of International Law
- Conclusion

Context

The relevance of international law has come under doubt after the recent Ukraine- Russia war.

Introduction:

Ukraine was attacked by Russia amid widespread tensions rising internationally. Ukraine was invaded by Russia to prevent the spread of NATO from reaching Ukraine and to legitimize its activities in Crimea. It is to be known that before this Ukraine was part of the Soviet Union and with the end of the Cold War in 1991, Ukraine came into independent existence. Russia and the United States have had many agreements with Ukraine in which the security of Ukraine was ensured. But the recent attack by Russia has crossed the limits of international law. This move by Russia is putting the relevance of international law in doubt.

What is International Law:

International law refers to the rules governing the mutual relations between nations. Formerly it was known as the "Law of Nations". But the use of this word created a confusing situation. The term international was first used by Bentham in his book "Principles of Morals and Legislation "in 1789.

International law according to

some other jurists

• According to Hall: - International law consists of certain rules of conduct which modern civilized state regards as binding on them in their relation with another.

• According to Brierley:- Law of nations or International law is the body of rules and principles of action, which are binding on civilized states in their relations with one another.,

• According to Oppenheim: - Law of nations or international law is the name of a body of customary and treaty rules which are considered to be legally binding in their relations with one another.

Has international law become irrelevant in the present world? Arguments against recognition of international law as law

Controversy often prevails among various jurists regarding the relevance of international law. Thinkers like Austin, Bentham, Holland, Hobbes, and their supporters believe that international law is not law. In this regard, the following arguments are given by these jurists-

According to Austin: Law should be made by a sovereign authority and it should be enforced by them. International law is not created by a sovereign authority, so it cannot be considered a "law". According to Holland: Rules ,whose observance depends on the will of the states and is motivated by their behavior towards each other. They can only be humbly placed in the category of law.

Apart from these definitions, some other arguments raise questions about the relevance of international law as "law"-

Lack of senior political power:-

• International law is devoid of any political authority. There is nobody that can compel states to abide by the provisions of international law.

• We have often seen that strong nations continue to violate laws. In the case of the Philippines and China, the International Tribunal ruled in favor of the Philippines, but China did not accept that decision. Russia's recent attack on Ukraine clearly shows that Russia is also violating the rules of the international community.

• The United Nations has failed to punish these nations which are affecting the relevance of international law.

Lack of law-making body

• There is no law-making body for making of international law. States make international law through mutual treaties. The past treaties are made by the states, so the states break the treaties in the



of sovereignty when name necessary.

Incompetence of International Court

• There is no other tribunal other than the International Court of Justice, which has the authority to apply international laws to the state.

The biggest problem is that the International Court of Justice does not have contempt power.

 Lack of democracy in global institutions

Due to the politicization of the • United Nations Security Council (known as the global executive) has become less credible. Here 5 countries (America, China, Russia, France, Britain) have privileges. These countries also use the veto to stop the rules passed by the United Nations General Assembly by the majority.,

Western countries dominate global economic organizations and the United Nations, where they make rules according to their will. Questions were also raised on the role of the World Health Organization during the Corona period.

Concept of nation-state

States give more importance to sovereignty due to the nation-state concept that came in modern times. At times, due to the importance of sovereignty, states are free from fear of any kind of punishment while breaking international laws.

Often the rules of IMF, World

Bank, etc. are violated by nation-states.

Empowering Bodies:-

The law in the states applies to individuals. Whereas in international law states are parties. States are more powerful than individuals, so they violate laws.

Abuse of international institutions, by India, Pakistan, and Israel On nuclear disarmament, encroachment on the South China Sea by China, often unilateral sanctions by the US on other countries and have reduced the relevance of international law. That is why many jurists consider international law to be merely "definite international morality" rather than the actual law. This belief has been further strengthened by Russia's invasion of Ukraine.

Arguments in favor of the utility of International Law:

Oppenheim considers International Law to be the real law and he also argues in terms of its effectiveness.

According to Oppenheim, "The states of the world together constitute a body, bound together by their common interests. These rules create wide contact between them and are the root cause of the international community. These rules are the culture of the states. , do not affect the difference in economic structure or political system. Although there is a difference between the mutual jurisdiction of states and the mutual jurisdiction of individuals, it can certainly be said that the existence of international law regulates certain conduct of states.

Supporters of Oppenheim have put forward many such arguments that prove the usefulness of international law. it is often a violation of the conventions and conventions of the base, which is not true. If we look at the Russia-Ukraine dispute itself, this dispute has come to its intensity after 30 years, but international law has played a major role in keeping this matter quiet for 30 years.

• International treaties are enforced by foreign offices, ambassadors, courts, and other government bodies in all states, which demonstrates the importance of international law.

Whenever a state violates international law, it tries to justify its action by contradicting international law. If the states do not give importance to international law, then they are not responsible to anyone for their action, but the arguments given by them show that international law is important.

Although cases of violation of international law are often seen, if all the countries continue to violate it in the absence of international law. there will be unrest in the world.

Many states have accepted the obligation of international finance in their constitutions, for example, Article 6 of the United States Constitution provides that, "International law is the supreme law of the country", which has also been recognized by the United States Court. has given.

• States often file their complaints with organizations such as the International Court of Justice, the IMF, the World Bank, or the World Health Organization. There are procedures to be followed in the context of a dispute. Such a system has been possible only because of international law.

When a country violates international law, sanctions are imposed on it by the international community. For example scientific and economic sanctions imposed on India in 1974, nuclear sanctions on Iran, economic sanctions imposed by many countries on Russia in the recent case.

• It is seen that international laws are often violated only on political issues, International laws are recognized on issues like environmental







issues, globalization, terrorism, organized crime, cybercrime.

Thus we see that customs and treaties are often considered by the state, and are rarely violated by some states. There is also a provision of sanctions in violation of international law, which proves the relevance of international law as "law". Thus it is of useful relevance to the present world.

The role of international law in ending the current crisis

• The refugee crisis in Ukraine will begin after the current crisis. International human rights laws will remain in effect during this refugee crisis.

• Russia should be pressured by the world community to accept the Geneva Convention and the Budapest Convention.

• There is also a situation of sanctions being created by Russia for not listening to the global community. Germany has imposed economic sanctions on Russia by banning Nord Stream 2.

• The world community should take a decision, in consultation with all stakeholders, on the "principle of state recognition" necessary to bifurcate Ukraine.

• In this context, the United Nations and the United Nations Security Council have to play an effective role.

India and Russia - Ukraine Crisis

India's priority is Indian residents stranded in Ukraine. India should first think about bringing those citizens to India.

Following a request by Ukraine, Indian Prime Minister Narendra Modi has decided to talk to Russian President Vladimir Putin about this crisis. India has been a traditional friend of Russia. Along with this, India is a strong supporter of global peace. India can use its diplomacy to end this crisis.

If this India plays an important role in solving this crisis or it will strengthen India's global stature.

Conclusion

International problems are increasing in the present time. There are many problems like global warming, cybercrime, cryptocurrency, terrorism, organized crime, money laundering for which the international community has to come together. International law is highly relevant in these matters. National states sometimes violate international law due to political ambition, but this does not mean that international law has become irrelevant. Efforts should be made to resolve the dispute between Russia and Ukraine diplomatically, making the global community an important role in this matter.



NOTES



- Why in News
- Context
- Analyse the root causes of school closure in India
- Adopt 'PERI' Approach
- Way Forward

Why in News:

In the last two years, India has achieved the dubious distinction of becoming the country with the second longest COVID-19 pandemic-linked school closure in the world — next only to Uganda.

Context:

In the last two years, India has achieved the dubious distinction of becoming the country with the second longest COVID-19 pandemic-linked school closure in the world next only to Uganda.

According to a United Nations report, it is an estimated 82 weeks, with some intermittent classes in between. Much has been said, written and published about the impact of school closure on learning loss.

However, there has been very limited discourse on why in spite of scientific evidence to support re-opening Indian States continued to remain reluctant to reopen schools.

Analyse the root causes of school closure in India:

To start with, one of the biggest reasons for continued school closure has been widespread misinformation. Unsubstantiated statements such as 'the third wave would affect children' and 'let's wait for vaccination of kids before reopening schools' were made by influential individuals and amplified on social media. These scared parents and (incorrectly) linked school reopening with COVID-19 vaccination of children. Occasional reports of children being hospitalised in different parts of the world were on loop on television channels, sensationalising the matter; while it boosted their target rating point (TRP), it harmed hapless children.

Two, the opinion of a small section of privileged parents and self-proclaimed representatives of their association - often not fully understanding the complexity of the issues - dominated and prevailed in the mainstream discourse. Though surveys had indicated that poor and middle class parents - no matter which part of the country they were from - wanted schools to be open, they were largely ignored in decision making, which was also influenced by 'sensational' newspaper reports and high-pitched TV debates. Many 'experts-on-everything' appeared on television channels with the argument 'lets err on the side of caution', as if epidemiological and scientific evidence were of no value. Every time privileged parents or an 'expert on everything' spoke, they deprived children from poor and marginalised backgrounds of their opportunity of and right to education. It needs no reiteration that, in the last two years, already wide educational inequities have only widened further.

Three, the Government's response, at all levels, to the misinformation was delayed and arguably insufficient. Though science communication increased over a period of time, it did not match the pace of misinformation. Politicians in most States played to the gallery and used the opposition (by a small group of the mostly privileged) to re-open schools as an excuse to delay school reopening.

Four, the lived experience of citizens from the second COVID-19 wave in India — in which people had to fend for themselves — dented the trust of the average citizen in the Government and its institutions. Alongside, the widespread misinformation not countered by the Government and not engaging with stakeholders for regaining trust, compounded the challenge. `

Five, for many months after the initial closure of schools, there was almost no planning and discussion on the need for objective criteria to reopen schools. In early January 2021, India had almost declared victory over the





COVID-19 pandemic. However, there was very little discussion and urgency to reopen schools.

Delay in school reopening has revealed societal aspects as well:

First, it is not a given that those with the influence and voices would speak on behalf of the poor and the voiceless.

Second, school closure has had the worst impact on children who were already at a disadvantage.

Third, the learnings during the novel coronavirus pandemic have been (wrongly) equated with completion of the syllabus.

Adopt 'PERI' Approach:

In the weeks ahead, schools are likely to reopen in more States and for additional classes/grades; however, it will be unfair to our children if we simply move on without sufficient measures to ensure that schools start functioning at full capacity. It is possible through a structured approach of P-E-R-I: Prepare; Engage; Reimagine and Innovate.

Prepare for the continuity of school education. The necessary planning and everyone developing a perspective on the risk of COVID-19 is absolutely essential. Even when the pandemic winds down, COVID-19 cases will continue to be reported. Occasionally, there could be a rise in coronavirus cases in various settings. Therefore, every State needs to develop a road map, strategies and plan ahead to prevent avoidable disruptions. The objective criteria for school closure — if at all — needs to be developed and such a decision or decisions should be implemented in a decentralised manner at the block or the district level. All of us need to develop a perspective about the impact of COVID-19 on children. As an example, in many settings, the risk of hospitalisation of children due to



dengue, malaria or diarrhoea is far greater than with COVID-19. If we do not close schools for those conditions, why do so for COVID-19?

Engage with key stakeholders including parents and raise awareness about the importance of in-person education and the concept of holistic child development. There is a need for the continued engagement of all key stakeholders parents, community members, schools, public health experts and the local governments to counter any misinformation in the course of things and bring learning on track. Learning (as well as nutrition) loss has been the maximum for younger children. However, anganwadi. pre-nursery and nursery schools in most States and primary schools in many States continue to remain closed, which should be opened urgently and immediately.

Reimagine every facet of school functioning such as improved ventilation and blended learning methods. More importantly, there are reports that children from many poor and marginalised communities have already dropped out of schools and may not return to the education system, i.e. children pulled into child labour and other paid and unpaid work. The task clearly would be only half done when schools open. Special initiatives socio-political engagement and discourse need to be started so that every single child who is in need of education can return to in-person learning. It is also an opportunity to revive school health services in Indian States, and institutionalise regular counselling and mental health services for school-age children, especially for adolescents.

Innovate for compensating for learning loss and make schools place for holistic child development. Schools are far more than a place to complete the syllabus. A child meeting and interacting with other children in real life and in school contributes to the emotional, social, cognitive, communication, and language development. There is a lot of focus on compensating for learning loss and the months before the next academic session starts are being suggested to be used for catching up on missed lessons. It would be a narrow approach and this period is far too short.

Way Forward:

For the majority of the poor and lower- and middle-income families, quality education is the only hope to come out from the vicious cycle of poverty and think of a bright future. The widening educational inequities now mean that the pandemic has deprived the poor and the most vulnerable in society of this opportunity.

Continued school closure and a hesitation in reopening academic institutions are the symptoms of a deeper malady in India's education system as well as a reflection of the value decision makers attach to school education. It is our socio-political responsibility that everything needed to ensure the safe return of every child in the country to the school is done. It is not a matter of choice but what we, as a responsible society, must do urgently.

SHORT ISSUES

NATIONAL

Kisan Drone launched in India

Nowadays, Drone technology is used in security, wildlife conservation, defence, border monitoring and many more areas. Its better usage will help in progress and security of the country. The use of Kisan Drones has been started in India for the development of the agricultural sector and for providing necessary help to the farmers in their agricultural work. Prime Minister Narendra Modi has inaugurated Kisan Drones through video conferencing as part of a special campaign aimed at helping the farmers of the country. Kisan Drone Yatra has been started first in Punjab and then in Goa. Kisan Drone Yatra has also started in Kannaui Uttar Pradesh. Neemuch Madhya Pradesh and Raja Mangaram Andhra Pradesh Kisan drones have started working in Salem in Tamil Nadu, Golaghat in Assam. Jaipur in Rajasthan

Karimnagar in Telangana and Manesar, Harvana. This is a new chapter in the direction of the modern farming system of the 21st century. This is the beginning of the New Age Revolution. The launch of Kisan Drones will not only develop the drone sector but will open up possibilities of its use in many areas. This will lead to the development of an ecosystem of drone start-ups in the country. With these objectives, Indian Prime Minister Narendra Modi inaugurated 100 Kisan drones for spraying pesticides in the country's agricultural lands and fields.

The PM said that earlier there was a perception in the name of drones that it is related to the army or things used to fight enemies but now it is a new chapter in the direction of the modern farming system. The PM said that this launch will not only prove to be a milestone in the development of the drone sector but will also open up an infinite sky of possibilities. Drones will be used to spray pesticides in the fields. With this, Garuda Aerospace has set a target of making 1 lakh Made in India drones in the next 2 years. This will create new jobs and new opportunities for the youth.

Union Finance Minister Nirmala Sitharaman said that the Center will promote farmer drones, chemical-free natural farming, publicprivate partnerships for delivery of digital and high-tech services to farmers across the country in the financial year 2022-23. She had said that farmer drones would be promoted for crop evaluation, digitization of land records and spraying of pesticides and nutrients.

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Budget Boost for River Linking Projects

Recently in Budget 2022-23, an announcement was made for the implementation of the Ken-Betwa Link Project with an estimated cost of ₹44,605 crore. Budget also announced that Draft DPRs of five river links, namely Damanganga-Pinjal, Par-Tapi-Narmada, Godavari-Krishna, Krishna-Pennar and Pennar-Cauvery have also been finalised.

Background:

• National perspective plan (NPP): The proposal to interlink rivers gathered momentum when the Ministry of Water Resources formulated a national perspective plan (NPP) for optimum utilisation of the country's water resources during the 1980s.

• This ambitious plan of linking of the rivers received a further boost when Atal Bihari Vajpayee was the Prime Minister. Under the NPP, the National Water Development Agency (NWDA) identified 14 river links in the northern Himalayan river development component and 16 in southern peninsular river development component for inter-basin transfer of water.

About Ken-Betwa Link Project

• The Ken-Betwa Link project proposes to transfer water from the Ken river to the Betwa river — both tributaries of Yamuna.

• With a 2-km long tunnel, this link project will have a total of 221 km long canals.

• The project is seen as a panacea for water-starved Bundelkhand region in Uttar Pradesh and Madhya Pradesh covering a total 13 districts will primarily benefit from this project.

• This river link is expected to create 9.08 lakh hectares of irrigated land,

drinking water for 62 lakh people, 103 MW hydro and 27 MW of solar-power.

Concerns-

• Experts said RLP is an extravagant scheme involving huge costs.

• A few environmentalists and hydrologists asserted that RLP can do irreversible damage:

1. The large network of dams and canals will alter the natural drainage leading to flooding.

2. Vast tracts of lands will submerge leading to displacement of innumerable people.

3. Increase the vulnerability of already very fragile ecosystem like Himalayas, Western Ghats

• Some river basin experts said that surplus water should not be diverted from a river on a large scale as the excess water is necessary to keep river basins healthy as it percolates down to the soil, recharges groundwater, etc.

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International Conference on Indian Temple Architecture 2022

The Amrit Mahotsav of Independence is being celebrated in different levels and forms with the aim of accelerating the cultural integration of India. Under the aegis of the same festival, the Archaeological Survey of India (ASI), under the Ministry of Culture, Government of India, organized a two-day international conference on the theme 'Devavatanam' - A Long Journey of Indian Temple Architecture on 25 - 26 February 2022 at Hampi, Karnataka, The conference was inaugurated by the Union Minister of Culture, Tourism and Development of the North Eastern Region of India. The inaugural session was held at Pattabiram Temple in Hampi. Various styles and forms of temple architecture like Nagara, Vesara, Dravida, and Kalinga were discussed in the conference.

The aim of the conference is to discuss the philosophical, religious, social, economic, technical, scientific, art and architectural aspects of the temple. A dialogue on the development and progress of different styles of temple architecture like Nagara, Vesara, Dravida and Kalinga other temples were also organized in the conference.This conference will be beneficial for scholars, students of Indian history, archaeology, culture and architecture and the general public. The aim of the conference is to generate interest among scholars and students, to learn and honor the heritage.

Temples have always been an integral part of Indian life and its ecosystem. Temple building was not only practiced as a sacred act in the subcontinent, but the idea also spread to the nearest neighborhoods such as South-East and East Asia so it becomes an interesting study to see how the art and technique of temple architecture propogated from India. and this art spread to other parts of the world

Importance of Hampi in Indian Temple Architecture:

Hampi, the capital of the Vijayanagara Empire, was one of the greatest empires of medieval India during the fourteenth century. It is located in the state of Karnataka. It has been a symbol of India's cultural pride. It was founded by Harihara and Bukka in the year 1336.

Classified as a World Heritage Site by UNESCO (the year 1986), it is also the "largest open-air museum in the world". Hampi is surrounded by the Tungabhadra River in the north and stony granite mountains on the other three sides. The ruins of the fourteenth century of Hampi are spread over an area of about 26 square

kilometers. The monuments of Vijayanagara city, also known as Vidya Sagar in honor of the saint Vidya Narayan, were built between 1336-1570 AD by kings from Harihara-I to Sadashiv Raya etc. Most of the buildings here were built by the great ruler of the Tuluva dynasty, Krishna Deva Raya (1509-30 AD). The temples of Hampi are known for their large dimensions, floral ornamentation, conspicuous carvings, huge pillars, lavish mandapas and sculptures and traditional paintings depicting themes from Ramayana and Mahabharata. The Vitthal temple at Hampi is a classic example of the artistic style of the Vijayanagara Empire. The idols of Goddess Lakshmi, Narasimha, and Ganesh carved out of a single stone are remarkable for their vastness and grandeur. Among the Jain temples located here, Krishna Temple, Pattabhiram Temple, Hazara Ram Chandra, and Chandra Shekhar Temple are prominent.

INTERNATIONAL

India-UAE CEPA

Why in News?

Recently, India and the United Arab Emirates signed a Comprehensive Economic Partnership Agreement (CEPA)

The accord was signed by Commerce and Industry Minister Piyush Goyal and UAE's Minister of Economy Abdulla bin Touq Al Marri.

The bilateral trade pact is India's first in the region and the first comprehensive trade agreement with any country in a decade.

Reduced Tariff

Under the pact, India agreed to provide tariff concessions on gold imports, while the UAE eliminated tariffs on jewellery imports into that country.

It will allow 90% of the country's exports duty-free access to the Emirates.

The CEPA is likely to benefit about \$26 billion worth of Indian products that are currently subjected to 5% import duty by the UAE.

It is set to reduce tariffs for 80 percent of goods.

The remaining 20% includes goods that are "sensitive" for domestic businesses and would require more time to reach a state when tariffs can be lowered.

Further tariff concessions were expected on both sides over 5 years that would lead to lower tariffs for 98 per cent of exports and 90 percent of imports from the UAE.

Indian exports are set to get zero duty access within a further 5 to 10

years, including electronic goods, chemicals and petrochemicals cement, ceramics and machinery accounting for about 9 percent of the value of current exports to the UAE.

Significance of the Deal

• It is expected to boost bilateral trade to \$100 billion in the next five years from \$60 billion now.

• It will help in realizing the ambitious target of U.S.\$1 trillion of merchandise exports and U.S.\$1 trillion of services exports by the year 2030.

• Through the pact, Indian exporters will also get access to the much larger Arab and African markets.

and • India's labour-intensive employment-generating industries such as gems and jewelry, textiles, leather, footwear, sports goods, furniture, pharmaceuticals, medical devices and automobiles are expected to gain the most from the pact.

• The pact will create investment opportunities for Indian investors in establishing specialized industrial advanced technology zones in Abu Dhabi, focusing on logistics and services, pharmaceuticals agriculture, steel and aluminium.

This CEPA with the UAE will pave the way for India to enter the UAE's strategic location, and have relatively easy access to the African market and its various trade partners which can help India in becoming a part of that supply chain, especially in handlooms, handicrafts, textiles and pharma.



NOTES





The Significance of EU-India Partnership in the Indo-Pacific

Why in News?

Europe and its key Indo-Pacific partners are joining forces to deliver a positive agenda for the region at the ministerial Forum taking place in Paris under France's ongoing presidency of the EU. This firstof-its-kind event brings together the foreign affairs ministers from EU member states and 30 Indo-Pacific countries, including India's Foreign Minister Jaishankar, with France and the EU as co-chairs.

The issues at stake in this crucial region, including security challenges, are of concern to all EU countries. Europe's answer is a comprehensive and positive agenda of solutions, rather than a military confrontation. This is also the guiding principle of the EU Strategy for Cooperation in the Indo-Pacific, unveiled in September 2021. Europe can offer the countries of the region a sustainable, transparent model for preserving their sovereignty, and an alternative to other models, such as China's. Forum is France's contribution to translating this strategy into actions.

India, EU & Indo Pacific Region

• On the issues of security and defense, connectivity and common goods, India has a central role to play.

• France, itself a nation of the Indo-Pacific, has a long-standing commitment to upholding the law of the sea in the region, particularly through permanent naval presence and joint exercises, such as yearly "Varuna" drills with India. • Other EU countries are increasingly present at the national level.

• Stronger European engagement will help to better the responce for the security challenges in this vast region.

• This would be a significant step that demonstrating the EU's role as a provider of stability in the region.

India's recent Participation with EU in Indo-Pacific region

• India's support for France's membership of the Indian Ocean Rim Association (IORA).

• India's backing for a larger European role in the Indo-Pacific.

• India has welcomed the interest of Germany and Netherlands in building a new geopolitical architecture in the Indo-Pacific.

• Some of the crucial areas that India and EU can work together include joint efforts in capacity building against challenges like piracy, counter-terrorism etc and cooperation in enhancing interoperability and domain awareness, maritime technologies, blue economy etc.

Conclusion

• In a world of growing tensions, the core goal of France's EU Presidency is to strengthen Europe's sovereignty and its ability to decide its own fate.

• This endeavor matches India's fundamental aspiration for strategic autonomy. That is why France believes that the EU can be India's natural partner to reshape the post-pandemic world and promote a multipolar order.



NOTES

ENVIRONMENT

Hope Island

Andhra Pradesh government has recently planned for the development of air connectivity between Kakinada City and Hope Island located in "Kakinada Bay" which will also give a new direction to the beauty of Godavari estuary in Andhra Pradesh.

Hope Island is part of the Coringa Wildlife Sanctuary in Andhra Pradesh and is also home to the Olive Ridley Turtles in India. For their protection, NTPC is also working here according to Corporate Social Responsibility (CSR) norms.

Hope Island acts as natural break water and protects the city of Kakinada from cyclones in the Bay of Bengal. Storms coming from the Bay of Bengal first hit this island. Fishermen are advised to shift but they never leave. The island is 8.04 sq km in the shape of a tadpole in the Bay of Bengal. It is formed from the sand of the Coringa River over 200 years.

The process of getting the status of UNESCO World Heritage Site for Coringa Wildlife Sanctuary has also been started by the state government.

A total of 120 species of birds are found in this wildlife sanctuary, in which herons, flamingos and pheasants are prominent. Apart from this, golden jackals, sea turtles and otters are also found here.

A variety of birds are found in this sanctuary due to the availability of a

large quantity of food items.

The importance of this wildlife sanctuary can be gauged from the fact that some species on the verge of extinction like a long-billed vulture and white ibis are also found here.

Coringa Wildlife

• The sanctuary is located near Kakinada in Andhra Pradesh. It is the second-largest mangrove forest area in the country after the Sundarbans delta of West Bengal in India.

• More than 120 species of birds are found in this sanctuary.

• The total area of this sanctuary is 235. 70 sq. km.

2

Objection against declaring wildlife as vermin in India

Recently, People for the Ethical Treatment of Animals (PETA) has opposed declaring animals as vermin in India and appealed that the provisions declaring animals as vermin should be removed. In fact, the Government of India has added some new provisions for the protection of wildlife through the Wildlife Protection Amendment Bill 2021. For this reason, PETA has opposed declaring some animals as Vermin.

Section 62 of the Indian Wildlife Protection Act 1972 has made a provision to declare some wildlife as vermin. It provides that the Central Government may, by notification, declare any animal other than those specified in Schedule I and Schedule II to be vermin.

For the period for which they will be declared vermin, the same can be done as given in the notification. As long as this notification is in force, such wildlife will be known as Schedule 5 species.

In 2016, Uttarakhand and Bihar declared wild boars as vermin. In the year 2020, Uttarakhand had also declared Nilgai as a vermin, which means that no permission would be needed to kill such creatures for 1 year.

Recently, the farmers of Orissa had also demanded to declare wild boars as vermin because they cause great damage to the crops. Earlier, monkeys have also been declared vermin in Himachal Pradesh. In 2016, the Agriculture Department of the Himachal Pradesh government had said in its report that there was a crop loss of Rs 184.28 crore due to wildlife, especially monkeys. Similarly, there has been a demand for the declaration of Neela Kozhi bird in Kerala, wild boar as vermin in Goa in recent times.



SCIENCE AND TECH

1

Chandrayaan-2 Orbiter Detects Solar Proton Events

Why in News?

Recently, a large Area Soft X-ray Spectrometer (CLASS), a payload onboard Chandrayaan-2 Orbiter, has detected solar proton events (SPEs) which significantly increase radiation exposure to humans in space, the Indian Space Research Organisation (ISRO) said on Wednesday.

Context:

• Chandrayaan-2 Large Area Soft X-ray Spectrometer (CLASS) on-board Chandrayaan-2 Orbiter detected SPE due to an M5.5 class solar flare that occurred on January 20, 2022. The CLASS instrument also detected a Coronal Mass Ejection(CME) event as it passed through the moon due to an M1.5 class solar flare that occurred on January 18.

• CME travels at a speed of about 1,000 km/s and it takes about 2-3 days to reach the Earth.

• The signature of this event is missed by the GOES satellite NASA, as Earth's magnetic field provides shielding from such events. However, the event was recorded by Chandrayaan-2. The CLASS payload on Chandrayaan-2 saw both the SPE and CME events pass by from two intense flares on the Sun.

• The instrument on January 18 also recorded coronal mass ejections (CME), a powerful stream of ionised material and magnetic fields, which reach the Earth a few days later, leading to geomagnetic storms and lighting up the polar sky with auroras, .

• Such multi-point observations

help us understand the propagation and its impact on different planetary systems.

• The SPE event was seen by NASA's Geostationary Operational Environmental Satellite (GOES) satellite orbiting around Earth. However, the CME event was not detected by GOES.

What is Solar flare?

• When the Sun is active, spectacular eruptions called solar flares occur that sometimes also spew out energetic particles (called Solar Proton Events or SPEs) into interplanetary space. Most of these are high energy protons that impact space systems and significantly increase radiation exposure to humans in space. They can cause ionisation on large scales in Earth's middle atmosphere.

• Many intense solar flares are accompanied by CMEs, a powerful stream of ionised material and magnetic fields, which reach the Earth a few days later, leading to geomagnetic storms and lighting up the polar sky with auroras.

Way forward:

• These are the natural phenomenon and we cannot stop it. Prediction and prevention is the only option to reduce the effect of these storms.

• For example at the Space Weather Prediction Center – continually monitor the sun, both from space and from Earth's surface. When a solar storm with the potential to affect Earth takes place, they see it and rises an alert.

• Governments and scientists are beginning to pay more attention to this issue, with an eye to creating systems and procedures to help withstand such powerful effects from the sun.



NOTES



Indigenous Stealth Fighter

Why in News?

India and France are close to concluding a deal, likely in the next couple of months, for the joint development of a 125KN engine for the indigenous fifth generation Advanced Medium Combat Aircraft (AMCA) under development, according to defence officials.

What is Advanced Medium Combat Aircraft?

• The Advanced Medium Combat Aircraft (AMCA) is an Indian programme to develop fifth generation fighter aircraft for the Indian Air Force and the Indian Navy which will also include sixth generation niche technologies.

• The design of the aircraft is carried out by Aeronautical Development Agency (ADA), an aircraft design and development agency constituted under Defence Research and Development Organisation (DRDO).

• It is expected to be produced by a public-private joint venture between the DRDO, Hindustan Aeronautics Limited (HAL), and French engine maker Safran.

• The programme has an aim to start production by 2028. The development cost is estimated to be around ₹15,000 crore.

• AMCA will be a single-seat, twin-engine, stealth all-weather swing-role fighter aircraft. Two variants of AMCA will be produced in a phased production model. AMCA Mark 1 will come equipped with fifth generation technologies and Mark 2 will have the incremental sixth generation technology upgrades.

• The initial design of the AMCA started way back in 2009 and is en-

visaged as a twin engine stealth aircraft with internal weapons bay and Diverterless Supersonic Intake, which has been developed for the first time and for which the design is complete. It will be a 25 tonne aircraft with internal carriage of 1,500 kg of payload and 5,500 kg external payload with 6,500 kg of internal fuel.

• The configuration has been frozen, Preliminary Service Quality Requirements (PSQR) are finalised and the preliminary design review is complete. The Critical Design Review (CDR) is expected later this year with the roll out planned in 2024 and first flight planned in 2025.

• The AMCA will have stealth and non-stealth configurations, and would be developed in two phases — an AMCA MK1 with existing GE414 engine, and an AMCA Mk2 with an advanced, more powerful engine planned to be jointly developed.

• Simultaneously, the project for the development of a twin engine deck-based fighter jet meant to fly from the Navy's aircraft carriers is also making progress. Various programmes underway, have commonality of systems and technologies.

• The AMCA which is intended to perform a multitude of missions including air superiority, ground-strike, Suppression of Enemy Air Defenses (SEAD) and electronic warfare (EW) missions would be a potent replacement for the Sukhoi Su-30MKI air superiority fighter, which forms the backbone of the IAF fighter fleet.

• The AMCA design is optimised for low radar cross section and supercruise capability.

Advantages of Stealth Technology

• Efficiency can be increased while in a war zone when stealth vehicles are used in place of conventional vehicles, providing long term fiscal savings.

• Strikes from a stealth fighter aircraft prevent enemies from initiating attacks and as enemies are unable to locate them stealth weapons are utilized as intimidation fleets.

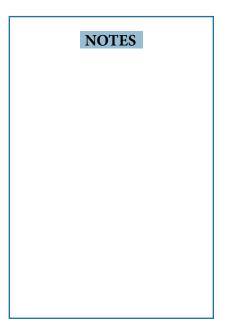
• Decline in casualty rates is achievable using stealth technology in warfare.

Disadvantages of Stealth Technology

 Compared to conventional aircrafts, stealth aircrafts are less agile and lack efficient maneuverability.

• Stealth aircraft have lower payload or carrying capacity than the conventional aircraft.

• The biggest disadvantage of a stealth aircraft is its high cost. Ex. Fighter aircraft such as B-2 (\$2 billion) and F-22 (\$100 million) are the most expensive aircraft in the world.



ECONOMY

1

Decoding Our Import Tariff Policy

Why in News?

According to the World Trade Organisation's (WTO) Tariff Profile for 2021, India has one of the highest average tariffs of 15% in the Asia-Pacific region.

Key Points:

• The Union budget for 2022-23 talks about an "Amrit Kaal", or a Vision for India at 2047, when the country is expected to become the third largest economy in the world.

• The government wants to boost "Make in India", reduce import dependence, and promote exports.

Steps Taken:

• The previous budget focused on Production Linked Incentive (PLI) schemes to scale up domestic manufacturing.

• Efforts have been made to reduce inverted duties in sectors like medical devices, which were hampering Make in India.

• More than 75% of India's demand for medical devices is met through imports and many studies confirmed that higher import duties on raw materials/intermediate products than on finished medical devices were hampering domestic production.

o Stakeholder consultations organized by the ICRIER on autonomous tariffs versus trade agreements, covering over 30 industries, confirmed that most of the issues related to inverted duties have been resolved.

• There remain issues in certain sectors like alcoholic beverages where both the final and intermedi-

ate products face duties and cesses of around 150% in total, which has been a concern for India's trading partners and the domestic industry alike.

o However, it can be used as a bargaining tool in our ongoing trade negotiations.

• Addressing the problem of inverted duties over the last couple of years has led to the rationalization of customs exemptions, imposition of new tariffs and reduction in tariffs for certain products.

o In some sectors like electronics, this has delivered positive results. India, for example, has started manufacturing smartphones.

Way Forward:

• India's previous trade agreements were mostly geo-strategic, but New Delhi is now focusing on greater market access in key export destinations.

o After withdrawing from the mega-regional agreement, the Regional Comprehensive Economic Partnership (RCEP), and implementing several measures to restrict imports from China, India quickly sealed a deal with its transhipment hub, the UAE.

o Sectors like gems and jewellery and engineering already see this as a key export-promotion agreement.

o An early-harvest pact is on the cards with Australia, which is a key partner in supply-chain initiatives along with Japan, which shares similar concerns about over-dependence on China. o The first round of negotiations with the UK, with which India has a positive trade balance in both goods and services, was complete by January 2022.

o And India has relaunched trade talks with the EU.

• Trade talks could be launched with the US also, but Washington is the world's toughest trade negotiator and it is better to have domestic policy regimes in place for areas like data sharing before such negotiations.

• In terms of the selection of export destinations as trade-agreement partners, India seems to have followed the right strategy.

• India is also trying to make its domestic subsides/incentive regime WTO-compliant.

• A huge thrust has been given to quality improvement, product standardization and infrastructure and logistics development, so as to reduce costs and enhance our export competitiveness.





1. Indian Army organizes "Sainya RANAKSHETRAM" Hackathon

The first hackathon was organized by the Indian Army named "Sainya Ranakshetram" from 01 October 2021 to 31 December 2021. This is the first hackathon of its kind. It was organized at Military College of Telecommunication Engineering (MCTE), Mhow. This hackathon was organized under the guidance of Army Training Command, Shimla. In this sequence, the Chief of the Army Staff, General MM Naravane honoured the winners of the hackathon in an online ceremony on 10 February 2022. Recently, the Indian Army has established Quantum Lab and Artificial Intelligence (AI) Center at Military College of Telecommunication Engineering in Mhow, MP.

2. 'Health star rating' on packaged foods

Recently, the Food Safety and Standards Authority of India (FSSAI) has issued a directive regarding the packaging of food items. Under this, 'Health Star Rating' will now be shown on packaged food items. The number of stars will show how good or bad the object is in terms of health. This rating will be based on the amount of fat, sugar and salt present in the food. The supporting study for this was done by the Indian Institute of Management, Ahmedabad.



The Food Safety and Standards Authority of India (FSSAI) is a statutory body established under the Ministry of Health and Family Welfare, Government of India. It has been established under the Food Safety and Standards Act, 2006, which is a consolidated law relating to food safety and regulation in India.



3. Government launches Smile scheme for marginalized persons for livelihood and enterprise

The Department of Social Justice and Empowerment, Government of India has started the Smile Scheme. The smile scheme is a central scheme for the welfare of the transgender community and beggars. The Ministry of Social Justice and Empowerment has allocated Rs 365 crore for the scheme. There are two sub-schemes under this. The first is for comprehensive rehabilitation of the transgender community and second for the comprehensive rehabilitation of beggars.

The components of the scheme for the welfare of transgender persons are as follows:-

- Scholarship for transgender students up to class ninth and post-graduation.
- To provide skill development and livelihood under the PM-Daksh scheme.
- Providing accommodation in the form of 'Dignity Home'.
- Establishment of transgender protection cells in each state.
- Providing e-services and other welfare measures.

At the same time, the focus of the scheme is on survey and identification, mobilization and shelter home for comprehensive rehabilitation of persons engaged in begging.



4. India ranks 46th in EIU's Democracy Index

India is ranked 46th out of 167 countries with a score of 6.91 in the Economist Intelligence Unit (EIU)'s Democracy Index 2021. In the index, India has got the lowest score (5) on the parameter of political culture and the highest score (8.67) on the parameter of electoral process and pluralism. India's neighbouring country Bangladesh has improved one rank to 75th in the Democracy Index in 2021. The index claims that more than a third of the world's population lives under authoritarian rule. Norway ranks first in the Democracy Index, followed by New Zealand, Finland and Iceland. Afghanistan ranks last in the index, followed by Myanmar (2nd from the bottom)

and North Korea (3rd from the bottom). Zambia has shown the biggest improvement in its overall index score globally. On the other hand, Indonesia has made the second biggest improvement in its overall index score globally. Out of 167 countries included in the index, 21 have been placed in the category of full democracies and 53 in the category of flawed democracies. While 34 have been placed in the hybrid democracy category and 69 have been placed under authoritarian governments.

5. Launch of 'Jiva' program with the aim of promoting natural farming

National Bank for Agriculture and Rural Development (NABARD) has launched the 'Jiva' program to promote natural farming under watershed programmes. The objective of this program is to promote natural farming as commercial farming. Jiva is an amalgamation of several projects under the watershed program of NABARD. The program will be implemented on a pilot basis in five agro-ecological zones. NABARD will invest Rs 50,000 per hectare under this programme.



NABARD at a Glance:-

- It was established in 1982.
- It is an apex bank for regulation of regional rural banks and co-operative banks in India.
- It works under the jurisdiction of the Ministry of Finance.



6. The share of women in board seats in Indian companies is only 17.1%

According to a Deloitte India report, the share of women in board seats in Indian companies has increased from 13.8 per cent in 2018 to 17.1 per cent in 2021. The report also claimed that 4.7% of chief executive officers and 3.9% of chief financial officers in Indian companies are women. At the same time, there has been a decrease in the number of women chairpersons in 2021 as compared to 2018. Global statistics show that globally, women account for 19.7% of board seats which shows an increase of 2.8% from the figures of 2018. The report claims that if the same increase in the figures continues, then by 2045 the share of women in board seats will reach 50%. The report

states that Indian regulators have put in place a comprehensive framework to encourage the representation of women in key positions in corporates. The average tenure of women directors in India has also increased from 5.0 years to 5.1 years in 2021. This edition of the Boardroom Report aggregates data from 72 countries.







7. India bans 54 Chinese apps

India has banned 54 apps of Chinese origin for security reasons. The banned apps include Marquee Game by Sea Ltd, Free Fire and other apps related to tech firms like Tencent, Alibaba and NetEase. These apps are banned by the Ministry of Electronics and Information Technology. These are re-branded versions of apps banned by India in 2020. Free Fire is compared to PUBG which was already banned.

When and how many Chinese apps were banned:-

Indian government initially blocked 59 apps on 29th june 2020 followed by 47 related/cloning apps on 10 august 2020, thereafter 118 apps were blocked on september 1,2020 and later 43 apps were blocked on November

19, 2020.

These apps were banned through an order under Section 69A of the IT Act. Section 69A of the Information Technology (IT) Act, 2000 empowers the Government to issue directions to block public access to any information through any computer resource. This section allows the government to block websites.

8. Emergency imposed in Canada

Canadian Prime Minister Trudeau has invoked the Emergency Act for the first time in 50 years to tackle anti-government protests. The Canadian government has made it mandatory for truck drivers to get vaccinated, due to which Canadians are protesting. The protests have affected Canada's economy and its relations with the United States. The Emergency in Canada Act was passed in 1988 and can be used to ensure the safety of Canada. The Act includes four conditions on the basis of which an emergency can be imposed. These grounds are public welfare emergency, public order emergency, war emergency and international emergency. According to the provi-



sions of the emergency, the government can freeze the bank accounts of any person associated with the protest.



9. The government launched DNT's economic empowerment scheme SEED

The Union Ministry of Social Justice and Empowerment has launched a 'SEED' scheme for the economic empowerment of Denotified Tribes (DNTs). Under this scheme, members of DNT/NT/SNT communities will be provided good quality coaching at the community level, health insurance, livelihood initiatives and financial assistance for house construction. Free coaching for DNT students will help them to appear in competitive exams and get admission in professional courses. The scheme will have four components and around Rs. 200 crores will be spent in 5 years. This scheme will be implemented through the portal developed by the Department of Social Justice

and Empowerment. Earlier the government had constituted a National Commission for Denotified, Nomadic and Semi Nomadic Tribes in 2014 and further the government had also constituted the Development and Welfare Board in 2019 for this class. According to statistics, there are about 1,500 nomadic and semi-nomadic tribes and 198 denotified tribes in India

10. 'Test Batting Award' to Rishabh Pant in ESPN Cricinfo Awards



Indian cricketer Rishabh Pant has been presented with the "Test Batting" award at the ESPN Cricinfo Awards. He has been given this award for his unbeaten 89 at the Gabba during the Border Gavaskar Trophy. At the same time, New Zealand captain Kane Williamson has been given the Captain of the Year award. While the Test Bowling Award went to Kyle Jamieson and England fast bowler Ollie Robinson got the 'Debutant of the Year' award. Shaheen Afridi has won the 'T20 Bowler' award for his performance against India in the T20 World Cup. In the same sequence, Fakhar Zaman received the 'ODI Batting' Award for his performance against South Africa at the Wanderers.

11. PM Modi inaugurates TERI's World Sustainable Development Summit

The World Sustainable Development Summit (WSDS) was inaugurated by Prime Minister Narendra Modi on 16 February which was organized by TERI (The Energy and Resources Institute). The theme of the summit is 'Towards a Resilient Planet: Ensuring a Sustainable and Equitable Future'. This conference was held from 16-18 February. In this conference, many issues including climate change, sustainable production, energy transition, resource security etc. will be discussed by experts. The President of the Dominican Republic and the President of Guyana will participate in this three-day summit. The main objective of this summit is to bring together governments, business leaders,



academicians, climate scientists on a common platform to discuss issues related to climate change.



12. New India Literacy Program Approved by the Central Government

A new scheme "New India Literacy Program" has been approved by the government for the period of 2022 to 2027. This scheme will cover all aspects of adult education. In the National Education Policy 2020, adult education and lifelong learning have been recommended. The objective of this scheme is not only to provide basic literacy and numerical knowledge but also to incorporate other components necessary for the citizen of the 21st century. The non-literates of the age of 15 years and above from all the states and union territories of the country will come under the purview of this scheme. The scheme will be implemented online mode through volunteers. The esti-

mated total outlay of "Nav Bharat Literacy Program" is Rs 1037.90 crore.

13. Asia's largest Bio-CNG plant inaugurated

Asia's largest Bio-CNG was inaugurated by Prime Minister Shri Narendra Modi in Indore. The plant will be operated entirely with 100% wet waste. This is expected to produce 18,000 kg of gas per day. The plant has a total capacity of 550 MT which will produce CNG with 96% pure methane gas. It is estimated that due to this, Indore Municipal Corporation will get a revenue of 2.5 crore rupees annually. The plant will improve calorific value, enhance the effectiveness of Bio-CNG and help purify the air quality of densely populated cities. In this way, it will help in reducing carbon dioxide by 1,30,000 tonnes annually. According to the estimates of Indore



Municipal Corporation, about 400 buses can be run in Indore in the coming few years from Bio-CNG produced from this plant.



Current Affairs at a Glance

- India Pavilion inaugurated at the 72nd Berlinale European Film Market 2022.
- 'Koala' has been listed by Australia as an endangered species.
- "How to Prevent the Next Pandemic" (Bill Gates's new book) will be released on May 3.
- The fourth meeting of the Quad Foreign Ministers concluded in Melbourne, Australia. Quad was established in 2007. Currently, Australia, India, Japan and the United States are its members.
- FICCI CASCADE launched Anti-Smuggling Day. Anti-Smuggling Day will be observed every year on 11 Febru-٠ ary.

It has been launched to enhance coordination and cooperation among law enforcement agencies.

- Paul-Henri Sandogo Damiba was elected President of Burkina Faso.
- Israel became the first country to allow drones in civilian airspace.
- Vineet Joshi will be the new chairman of CBSE.
- "Hope Express" will be launched in Maharashtra to prevent cancer.
- Manoj Tiwari became the brand ambassador of Khadi and other handicrafts of Bihar.
- Union Minister of Ports, Shipping and Waterways launched a water taxi service in Mumbai.
- Foodgrain production is estimated to be 316 million tonnes in the year 2021-22.
- The Ladakh Autonomous Hill Development Council has launched a new scheme 'kunsnyoms' for persons with disabilities.
- FPI limit for investing in the local debt market raised to Rs 2.5 lakh crore.
- Vedanta entered into an agreement with Foxconn to manufacture semiconductors in India.
- India will host the Olympics 2023 season, which will be held in Mumbai.
- Movie Pushpa: The Rise won the Film of the Year award in the Dadasaheb Phalke International Film Festival



BRAIN BOOSTER





1. Why in News

Elections are going on in Uttar Pradesh, Uttarakhand, Punjab, Manipur, and Goa. Elections are fought with huge funds nowadays. Estimates vary, but a candidate may spend in crores in just one **r** constituency.

2. Electoral Integrity

• Elections are the basis for democratic legitimacy.

• They give citizens a way to hold their leaders accountable by voting contestants in to, or out of, office.

• A credible election is one that is characterized by inclusiveness, transparency, accountability, and competitiveness.

3. Credible elections

Credible elections are characterized by inclusiveness, transparency, accountability, and competitiveness.

• Inclusive elections provide equal opportunities for all eligible citizens to participate as voters in selecting their representatives and as candidates for election to government.

• Elections are transparent when each step is open to scrutiny, and stakeholders can independently verify whether the process is conducted honestly and accurately.

• Accountability in elections refers to the rights of citizens with respect to the conduct of other electoral stakeholders, including the government, election management bodies (EMBs), political parties, candidates and security forces.

• Elections are competitive when citizens have reasonable and equitable opportunities to compete to be elected to governmental offices.

• It may go against the voter's own interest.

• Another long term solution is to fund political parties or one's favourite candidate with small donations.

4. Elections are a Process

• Elections are a process, not an event.

• Every election comprises numerous elements and involves multiple institutions and actors throughout the pre-election, election day and post-election periods.



9. Importance of election campaigns

• Democratic elections require an informed as well as a free vote and a fair chance for contestants to win support and motivate supporters to help them gain office.

• Election campaigns are vital to achieving those goals.

• Elections that are genuinely competitive offer equitable opportunities for contestants to convey their positions to citizens and compete for votes

10. Duty of a citizen and voter

• First and foremost is to vote, and equally important, make an informed choice.

• This means gathering all relevant information about the candidate, funding, spending and so on.

• Official websites of political parties, the Election Commission and some nonpartisan NGOs have information.

• It would also help if such information is shared widely with friends.

• Voting for any candidate or party that spends too much should be considered very carefully.

5. Open Election Data Principles

When election data is "opened up," it can:

• Increase the transparency of individual election processes.

• Improve the effectiveness of an election management body

- Increase voter participation in elections
- Increase citizen engagement
- Improve the inclusiveness of traditionally marginalized groups
- Reduce tension
- Generate new insights

6. Campaign Finance

• Competitive elections require that electoral contestants have a means for financing their election campaigns and routine operations.

• Campaign finance, an element of broader political finance, refers to all funds raised and spent in order to promote candidates, political parties or policies in elections, referendums, initiatives, party activities and party organizations.

7. Importance of campaign expenditures

• Campaign expenditures generally include any expenditure for electoral purposes, monetary or in-kind, by a candidate or party during an electoral campaign.

• Citizens can use information on campaign expenditures to make more informed choices among contestants.

8. Election Campaigns

 Election campaigns are the means by which candidates and political parties prepare and present their ideas and positions on issues to the voters in the period preceding election day.

• Contestants use a variety of techniques to reach voters and deliver their messages, including through traditional and new media, public events, written materials, or other means.



1. Why in News:

LCA Tejas, performed aerobatic displays over Changi International Airport in Singapore Airshow 2022. LCA Tejas, which had enthralled the audience at the Dubai Air Show made a stunning appearance in Singapore and the Indian Air Force tweeted and called it 'A Diamond In The Sky'.

2. About Tejas

• Tejas is a single engined, light weight, highly agile, multi-role supersonic fighter.

• It is a 4.5 generation multirole fighter aircraft.

• It has quadruplex digital fly-bywire Flight Control System (FCS) with associated advanced flight control laws.

• The aircraft with delta wing is designed for 'air combat' and 'offensive air support' with 'reconnaissance' and 'anti-ship' as its secondary roles.

• Extensive use of advanced composites in the airframe gives a high strength to weight ratio, long fatigue life and low radar signatures.

• Aeronautical Development Agency is the designated project manager for the development of LCA.

Specification	Measurement
Length	13.2 m
Span	8.2 m
Height	4.4 m
Max Take of Weight	13.5 t
Payload	5.3 t
Speed	1.6 M
Radius of Action	300 Km
Take off distance	1700 m
Landing Distance	1300 m
Service ceiling	16 Km

• The TEDBF is being designed based on lessons learnt from the Naval LCA programme and the first flight is planned in 2026. 3. The Beginning

• The Light Combat Aircraft (LCA) Tejas was conceptualised in the year 1984.

• The first flight of the LCA technology demonstrator was in January 2001.

• The indigenous jet was christened as 'Tejas' by then Prime Minister Atal Bihari Vajpayee in May 2003.

 It has come a long way both in terms of the maturity of the platform as well as the overall aircraft development programme despite repeated delays and cost overuns.

LCA Tejas

• The indigenous content in LCA is currently about 52% and HAL said it is looking at ways to increase it to 65%.

• In addition, the LCA MK2, a larger aircraft with a more capable engine is expected to roll out by year end or early 2023 following which it would take a year for its first flight.

• An ambitious fifth generation fighter aircraft Advanced Medium Combat Aircraft (AMCA), and a new Twin Engine Deck Based Fighter (TEDBF) to operate from the Navy's aircraft carriers are being developed by the Defence Research and Development Organisation (DRDO) and Aeronautical Development Agency (ADA).

4. Status of the LCA programme

• Two decades since the first flight, in February 2021, the Defence Ministry signed a ₹48,000 crore deal with HAL to supply 83 LCAMk1A to the IAF.

• The MK1A will have new Electronic Warfare system, Advanced Electronically Scanning Array (AESA) radar, Beyond Visual Range (BVR) missiles and network warfare system including Software Defined Radio (SDR).

• LCA achieved Initial Operation Clearance (IOC) in December 2013 and Final Operation Clearance (FOC) in February 2019.

• The first LCA squadron No. 45 "Flying Daggers" in the IAF was formed in July 2016.

• The second LCA squadron No. 18 'Flying Bullets' was operationalised in May 2020.

5. Cost of the LCA programme

• The Government had originally sanctioned ₹2,188 crore for Full Scale Engineering Development (FSED) — Phase-I programme to design and develop two Technology Demonstrators (TDs), and ₹5,777.56 crore for FSED —Phase-II Programme.

• On the overall project cost, the Government informed Parliament in March 2020 that a total of ₹11,096 crore has been spent till date on the indigenous LCA and the Kaveri jet engine (now shelved) development programmes. Of the total amount, ₹9,063.96 crore was spent on LCA and ₹2,032 crore on the Kaveri Engine.

6. Way forward

As per the contract, HAL has to deliver the first three MK1A aircraft to IAF in 2024 followed by 16 aircraft per year for the next five years, according to the Defence Ministry.
To ramp up production, HAL has already set up two additional assembly lines which are operational. Some back end activities are also being finished at the moment, according to HAL.





1. Fiscal space

- The Survey notes that buoyant tax revenues and government policies have created "headroom for taking up additional fiscal policy interventions.
- Stressing the need to continue the focus on capital expenditure, it has indicated that the government is on course to achieve the fiscal deficit target of 6.8% of GDP for the current year.
- Revenue receipts of the Centre during April-November 2021 have gone up by 67.2% (YoY) as against an estimated growth of 9.6% in the 2021-22 Budget Estimates.
- The estimated tax collections provide the cushion to support growth next year.

2. Vaccine economics

- The Survey says the progress of vaccination should be seen not just as a health response indicator, but also as a buffer against economic disruptions caused by repeated pandemic waves.
- This is based in part on the assumption that private consumption is poised to see stronger recovery with rapid coverage in vaccination and faster normalisation of economic activity, and the importance of vaccination in the re-opening of contact-intensive sectors.

3. Inflation pressures

• The Survey flags inflation as an issue.

- It has noted that while India's CPI inflation 5.2% in 2021-22 (April-December) is within the targeted tolerance band, WPI inflation has been running in double digits.
- This is partly due to base effects; however, India does need to be wary of imported inflation, especially from elevated global energy prices.

4. Global uncertainty

• While the sizeable accretion of foreign exchange reserves - \$633.6 billion as of December 31, 2021-makes India's external sector resilient for the withdrawal of liquidity measures, the Survey points out that the overall balance of risks for global trade is tilted to the downside.

• The biggest downside risk comes from the pandemic.

• Longer port delays, higher freight rates, and the shortage of shipping containers and inputs such as semi-conductors.

• Supply-side disruptions, exacerbated by recovery in demand, pose significant risks for global trade.



Economic Survey

9. Way forward

• Basis the macro-economic stability indicators, the Survey believes that the Indian economy is "well placed" to take on the challenges of 2022-23.

• The government's strategy has been to not pre-commit to a "rigid response" while using safety nets for vulnerable sections, and responding iteratively based on Bayesian-updating of information.

• The Survey proposes use of the Agile approach to policymaking with 80 high-frequency indicators in an environment of "extreme uncertainty".

5. Energy risks

• The report calls for a "diversified mix of sources of energy of which fossil fuels are an important part", but simultaneously calls for focus on building storage for intermittent electricity generation from solar PV and wind farms to ensure on-demand energy supply.

6. Supply side reforms

• It calls for emphasis on developing a supply-side strategy.

• It will deal with the long term unpredictability of the post-Covid world, emanating mainly from factors such as changes in consumer behaviour, techno-logical developments, geopolitics, climate change, and their potentially unpredictable interactions.

7. Industrial growth

• The industrial sector, which suffered due to pandemic disruptions, is likely to record a growth of 11.8% in 2021-22, the Survey says.

The pace of this recovery and further growth is likely to continue due to consistent efforts of the government to bring in various structural, fiscal and infrastructural reforms in addition to a slew of measures/schemes like the production linked incentive scheme (PLI) to support industries," it said.

8. Public spending

• After a slowdown in the first half of the ongoing financial year, capital expenditure by the Centre revived during October-December, the Survey notes.

• The first-half slowdown was mainly on account of Covid-19-led restrictions.

• During April-November 2021, capital expenditure grew by 13.5% (YoY), with focus in infrastructure-intensive sectors like roads and highways, railways, and housing and urban affairs.



1. Why in News ?

Election Commission of India (ECI) is conducting elections in Uttar Pradesh, Uttarakhand, Punjab, Manipur, and Goa. Voters cast their vote through electronic voting machine (EVM).

2. About EVM

• An electronic voting machine (EVM) is a portable instrument for the purpose of conducting elections to the parliament, legislature and local bodies like panchayats and municipalities.

• EVM is a microcontroller-based instrument designed to modernise the election procedure.

• There is no scope for invalid votes and total secrecy of voting data is maintained.

• It also facilitates quick and accurate counting.

• The voting data recorded in EVMs can be retained for years and can be extracted if necessary.

• The EVM is designed for a single post and a single vote.

• EVMs were used for the first time in the Goa State Assembly elections of 1999.

3. Background of EVM

• With a view to overcome certain problems associated with use of ballot papers and taking advantage of development of technology, the Commission in December, 1977 mooted the idea of EVM.

• The law was amended by the Parliament in December, 1988 and a new section 61A was inserted in the Representation of the People Act, 1951 empowering the Commission to use voting machines.

• The amended provision came into force w.e.f. 15th March, 1989.

• Central Government appointed the Electoral Reforms Committee in January, 1990 consisting of representative of several recognized National and State Parties.

4. How to use EVM?

• A voter needs to press the button against the candidate of his/her choice and then a red light glows against the symbol and name of the candidate for whom the vote has been cast. Simultaneously, a long beep can be heard, which confirms the polling of a particular vote.

5. Working Module of EVM

• An EVM consists of a control unit, balloting unit and a VVPAT connected together by a cable.

• The control unit belongs to a polling officer while the balloting unit is kept in a compartment to cast votes.

• EVMs can even be used in areas with no electricity, as they can be operated on alkaline batteries.

6. Technical Security of EVMs used by ECI

• The machine is electronically protected to prevent any tampering/manipulation.

• The programme (software) used in these machines is burnt into a One Time Programmable (OTP)/Masked chip so that it cannot be altered or tampered with.

• Further these machines are not networked either by wire or by wireless to any other machine or system. Therefore, there is no possibility of its data corruption.

• The software of EVMs is developed in-house by a selected group of Engineers in BEL and ECIL.

7. Uniqueness of ECI-EVMs

• ECI EVMs are Stand alone Machine.

• Most of the systems used in other countries are Computer based with internet connectivity. Hence, these could be vulnerable to hacking.

• The software in the ECI-EVM chip is one time programmable (OTP) and burnt into the chip at the time of manufacture.

• Nothing can be written on the chip after manufacture. Thus the ECI-EVMs are fundamentally different from the voting machines and processes adopted in various foreign countries.

• Voter Verifiable Paper Audit Trail

8. VVPAT

(VVPAT) is an independent system attached with the Electronic Voting Machines that allows the voters to verify that their votes are cast as intended.

EVM

• When a vote is cast, a slip is printed on the VVPAT printer containing the serial number, name and symbol of the candidate and remains exposed through a transparent window for 7 seconds.

• This printed slip automatically gets cut and falls in sealed drop box of the VVPAT.



1. Why in news

Scientists in the United Kingdom have managed to produce the largest amount of energy so far from a nuclear fusion reaction. This result is being seen as a major breakthrough in the ongoing global efforts to produce a fusion nuclear reactor.

2. Nuclear Fusion

- In a nuclear fusion reaction two lighter nuclei combine to form a relatively heavier nucleus.
- In this process huge amount of energy is also released.

Temperature at which protons would have enough energy to overcome the coulomb's barrier is very high.

3. Thermonuclear fusion

Increasing the temperature of • the material until the particles have enough energy due to their thermal motions alone to overcome the coulomb barrier.

• For thermonuclear fusion, extreme conditions of temperature and pressure are required.

Example of Thermonuclear fusion is generation of energy in stars

4. Energy Generation in Sun

 The mass of one hydrogen atom is 1.007825 Atomic Mass unit (AMU).

• When four hydrogen atoms are combined, it transmutes into a helium atom.

• The sum of the mass of four hydrogen atoms is 4.03130 AMU, while the mass of one helium atom is just 4.00268 AMU.

• As we know, matter is neither created nor destroyed; hence the mass difference 0.02862 AMU is converted into pure energy by way of Einstein's famous formula E=mc²

Final reaction is:- 411H +2e- --> 42He +6 γ+2 v+26.7MeV

5. Recent Advancement

• China's Experimental Advanced Superconducting Tokamak (EAST) sustained the plasma at 70 million degrees Celsius for 1,056 seconds in January 2022.

• In February 2022, the Joint European Torus (JET) fusion experiment in Oxfordshire, U.K., produced 59 megajoules (MJ) of energy from thermonuclear fusion.

Nuclear fusion breakthrough

8. What about India visàvis fusion?

• Way back in 1955, in the first 'Atoms for Peace' meeting in Geneva, Homi J. Bhabha saw a future in energy coming from thermonuclear fusion.

The Institute for Plasma Research (IPR) in Gandhinagar and the Hot Plasma Project at Saha Institute of Nuclear Physics (SINP), Kolkata, took the lead in nuclear fusion research in India.

• It is also known as proton-proton cycle because this process starts with protons.

 The JET experiment could harvest onethird of the input energy as an output, a significant step from earlier results.

6. About Tokamak

• For fusion to occur, the first step has to be the creation of hot plasma.

Heating a tiny pellet of hydrogen to millions of degrees and generating plasma is not that hard; lasers could do the job well.

• To keep the fiery plasma at millions of degrees from touching the container wall is the main task

Soviet physicists Igor Tamm and Andrei Sakharov conceptualised that if one can create a magnetic field in the shape of a torus, then the scorching plasma could be contained in the invisible magnetic bottle.

Based upon this theory, an experi-• mental reactor was built and demonstrated by a Soviet team led by Lev Artsimovich at the Kurchatov Institute, Moscow.

The Tokamak is an acronym for tonguetwisting Russian terms 'toroïdalnaïa kameras magnitnymi katushkami', which means "toroidal chamber with magnetic coils".

• Despite alternative designs having been designed and tested, tokamaks are far ahead for achieving fusion.

• 35 countries, including India, Russia, USA, UK, China, EU, are collaborating to jointly build the largest Tokamak as part of the International Thermonuclear Experimental Reactor (ITER).

In 2035, the plant is expected to generate 500 MW power and consume 50 MW for its operation, resulting in a net 450 MW power generation.

 None of the tokamaks worldwide, has demonstrated net energy production more than the input.

7. Significance of the recent accomplishment

• The plasma at high temperature needs to be sustained for a long time if commercial energy has to be obtained.

The Chinese accomplishment of maintaining 2.8 times the Sun's temperature for 17 minutes is a milestone in this direction.







1. Why in News

The COVID-19 pandemic has heightened economic inequalities across the world. The pandemic led to the deaths of millions of people globally. It has also exposed the weakness of public health systems and social and income protections for people worldwide.

2. About "Inequality Kills" report

• "Inequality Kills" is a report released in January 2022 by Oxfam, a U.K.-based consortium of 21 charitable organisations that have a global presence.

• The report argues for sustained and immediate action to end the pandemic, address global inequality and initiate concerted measures to tackle the climate emergency.

• The central argument of the report is that inequality is a death sentence for people that are marginalised by social and economic structures and removed from political decision making

3. India's Inequality Crises

• As per the Forbes billionaires report, in October 2021, the collective wealth of India's 100 richest hit a record high of USD 775 billion and more than 80% of these families saw an increase in their wealth as compared to 2020.

• Approximately three-fifths of (61 %) of these billionaires added a whopping USD 1 billion or more to their collective wealth.

• Meanwhile, 84 % of households in India suffered a decline in their income in the beginning of the pandemic. That wealth inequality is growing appears to be a reality.

4. Progressive Taxation

• Progressive taxation ensures that the tax burden is higher for the wealthy than it is for those with lower incomes.

• The idea behind such a system is that it allows for the wealthy to in some sense, fund via taxes, a basic standard of living for lower-income families, paying for basics such as shelter, food, health, education and transportation among other things.

• A progressive taxation system allows low income households to spend a significant portion of their meagre income on cost-of-living expenses, and as such is one of the least distortionary policy tools available to help control the rise in inequality by redistributing the gains from growth.



Inequality Kills : OxFam report

• Inequality is not natural, but is rather the manifestation of biased economic and social policies.

• Changes in the structure of the economy or broader changes in non-economic, political, social, cultural, or other spheres have a major impact on inequality.



5. Deprioritising Social Spending

Health

 Higher investment in healthcare and education could have reduced the spread of COVID-19.

Education

c Education is critical in the fight against inequality.

C Globally, countries with higher mean years of schooling tend to have lower income inequality.

Social Security

€ Expenditure on social security schemes for workers (under the Ministry of Labour and Employment) and the centrally sponsored scheme of National Social Assistance Programme is abysmally low at 0.6 percent of total union expenditure in 2021-22, or INR 20,574 crore, a decline from 1.5 percent of total expenditure from previous year.

(The e-Shram portal, which aims to register all migrant and gig workers had only been able to register 24% of such workers.

6. Way Forward

• Recognise inequality is real and agree to measure it.

• Redistribute India's wealth from the super-rich to generate resources for the majority.

• Generate revenue to invest in the education and health of future generations.

• Enact and enforce statutory social provisions for informal sector workers.





1. Why in News

The Pune-based Gennova Biopharmaceuticals is trying to roll out India's first homegrown mRNA (messenger ribonucleic acid) vaccine by April. Due to COVID19 pandemic, RNA therapies came to limelight. Two vaccines that emerged in late 2020, Pfizer-BioNtech and Moderna, used this technology.

2. About mRNA vaccine

• Like other vaccines, the mRNA vaccine strives to activate the immune system to produce antibodies that help counter an infection from a live virus.

 While the traditional method to do this involves introducing a part or the whole virus in a way that it cannot replicate, there is always the risk of an adverse reaction in the case of the SARS-CoV-2 virus.

• The theory goes that the less of a foreign body injected, the fewer the odds of an adverse response.

A common approach by vaccine ٠ makers during the pandemic was to introduce a portion of the spike protein, the key part of the coronavirus, as part of a vaccine.

Some makers, such as AstraZeneca or Sputnik V, wrapped the gene that codes for the spike protein into an inactivated virus that affects chimpanzees, called the chimpanzee adenovirus.

• The aim is to have the body use its own machinery to make spike proteins from the given genetic code.

• The immune system, when it registers the spike protein, will create antibodies against it.

 Other vaccines use a piece of DNA to envelope the spike protein genes.

• An mRNA vaccine works in similar ways in that it too is a piece of genetic code inserted into the body to stimulate an immune response.

3. How mRNA vaccines are different

 A piece of DNA must be converted into RNA for a cell to be able to manufacture the spike protein.

 While an mRNA vaccine might look like a more direct approach to getting the cell to produce the necessary proteins, mRNA is very fragile and will be shred apart at room temperature or by the body's enzymes when injected.

• To preserve its integrity, the mRNA needs to be wrapped in a layer of oily lipids, or fat cells.

• mRNA lipid unit most closely mimics how a virus presents itself to the body, except that it cannot replicate

like one.

• DNA is much more stable and can be more flexibly integrated into a vaccine vector.

 A challenge with mRNA vaccines is that they need to be frozen from -90°C to-50°C.

 A major reason why mRNA vaccines never made it to India was the stringent freezer conditions that made them expensive.

 A major advantage of mRNA and DNA vaccines is that because they only need the genetic code, it is possible to quickly update vaccines to emerging variants and even use them for a variety of diseases.

4. About Gennova's mRNA vaccine

• Gennova had said that the prospective vaccine uses a concoction of lipids and enzymes that allows the vaccine to be stored at 2°C to 8°C.

• However, the bulk of the materials necessary to manufacture the vaccine rely on imports.

 Company officials also say that the Indian mRNA vaccine will be cheaper than their imported versions but probably costlier than Covishield or Covaxin.

5. The Indian progress

• The mRNA vaccine is currently in phase 2/3 trial to evaluate the safety, tolerability and immunogenicity of the candidate vaccine in healthy subjects.

Around 4,000 volunteers have been recruited for the trial.

• Results from a phase 1 trial are expected to be published soon.

Gennova has got ₹125 crore from the Department of Biotechnology.

India has now fully vaccinated more than half its population and at least seven homegrown vaccines have been cleared by authorities

· Vaccine makers are hoping to supply to those below 15 years as well as cater to demand for third doses.

India's mRNA vaccine



MCQs Based on Environment and Ecology

- Q1. Consider the following statements:
 - 1. Vulnerability to death at a relatively early age
 - 2. Adult Literacy rate

3. Percentage of the population not using an improved water source.

4. Percentage of families having water-seal toilets.

Which of the above dimensions are used for measuring the Human Poverty Index-1 (HPI-1) as per the UNDP?

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

Q2. Consider the following gases:

- 1. Carbon dioxide
- 2. Methane
- 3. Ozone
- 4. CFCs
- 5. Nitrous oxide

Which one of the following is a correct sequence of relative contribution to the Man-made Green house-effect?

- (a) 1, 2, 3, 4, 5
- (b) 1, 2, 4, 5, 3
- (c) 2, 1, 5, 3, 4
- (d) 1, 2, 4, 3, 5
- Q3. Water has been harvested in India from ancient times. Our ancestors have perfected art of water management. Which among the following are traditional kind of water harvesting system in India?
 - 1. Katas
 - 2. Kunds
 - 3. Zing
 - 4. Surangam
 - 5. Baolis or Dighis

Code:

- (a) 1, 2, 3, 4 and 5
- (b) 2, 3 and 4 only
- (c) 1, 2, 4 and 5 only
- (d) 2, 3, 4 and 5 only
- Q4. The prime mission of the "National Mission on sustainable Habitat" is to
 - Systematically change the land use pattern. (a)
 - (b) Ensure afforestation on degraded forest lands

and expand forest cover.

(c) Develop climate resistant crops and improve agricultural practices.

(d) Promote energy efficiency as a core compo--nent of urban planning.

- Q5. Under the Integrated Child Development Scheme, Which among the following services are provided?
 - 1. Immunization
 - 2. Supplementary nutrition
 - 3. Primary School Education
 - 4. Health check-up

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2 and 3 and 4
- Q6. To minimize the toxicity in food, which of the follow--ing preventive measures should be taken?
 - 1. Discard the use of chemical fertilizer in crops.
 - 2. Use organic manures in crops.
 - 3. Use biopesticides in crops

Select the correct answer using the code given below:

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3
- Q7. On the packet of a packaged food product, what is the symbol that indicates that the food is vegetarian?
 - (a) A green plus mark
 - (b) A green square in a cricle
 - (c) A green leaf of a plant
 - (d) A green circular dot in a square
- Q8. With reference to pre-packed food items in India, it is mandatory to the manufacturer to put which of the following information on the main lebel as per food safety and standards (Packaging and Labelling) Regulation, 2011?
 - 1. List of ingredients including additives.
 - 2. Nutrition information
 - 3. Recommendations, If any, made by the medical profession.







4. Vegetarian/non vegetarian (in the form of green or brown logo)

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4
- Q9. Consider the following statements:

1. Higher levels of Ozone concentrations in the ambient air aggravates the frequency of symptoms among asthmatics.

2. A short-term increase in particulate matter in the ambient air increases the chance of acute heart attacks.

Which of the statement(s) given above is/ are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- Q10. Insectivorous plant generally grow in soil which is deficient in-
 - (a) Water
 - (b) Nitrogen
 - (c) Sodium
 - (d) Calcium

Q11. Eutrophication causes decrease in

- (a) Dissolved nitrogen
- (b) Dissolved salts
- (c) Dissolved oxygen
- (d) All of these
- Q12. A high BOD value in aquatic environment is indicative of-
 - (a) A pollution free system
 - (b) A highly polluted system due to excess of nutrients
 - (c) A highly polluted system due to abundant heterotrophs
 - (d) A highly pure water with abundance of autotrophs
- Q13. The Ecological pyramid that is always upright
 - (a) Pyramid of energy
 - (b) Pyramid of biomass
 - (c) Pyramid of number
 - (d) Population Pyramid

- Q14. "Green house effect" with respect to global warming refers to-
 - (a) Cooling & moist condition
 - (b) Warming effect
 - (c) Increased rainfall & greenery
 - (d) Increase of desertification of Sahara
- Q15. In India, tropical rain forest occurs in-
 - (a) Punjab
 - (b) Andaman & Nicobar
 - (c) Uttar Pradesh
 - (d) Harvana

Answer

(c)	12.	(b)	
(1)	10	()	

- (d) 13. (a)
- (a) 14. (b) (**d**)
 - 15. (b)
- 5. (d) 6. (d)

1.

2.

3.

4.

- 7. (d)
- 8. (d)
- 9. (c)
- 10. (b)
- 11. (c)

MCQs Based on Current Affairs

Q.1 With reference to the Ken-Betwa link project, consider the following statements:

1. An estimated amount of Rs.4000 crore has been allocated for completing the Ken-Betwa link project in the budget 2022-23.

2. The Ken-Betwa Link Project proposes to transfer water from the Betwa River to the Ken River.

Select the correct answer by using the code given below.

- a) only 1
- b) only 2
- c) Both 1 and 2
- d) neither 1 nor 2

Answer: d

Q.2 Which of the following statement(s) is/are correct? 1. The United Arab Emirates is India's fifth largest trading partner globally.

2. India's major exports to the UAE include petro--leum products, precious metals, stones, gems and iewellerv.

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) neither 1 nor 2

Answer- b

- Q.3 Consider the following statements about stealth technology aircraft:
 - 1. Stealth aircraft make the radar's task of effectively locating or tracking aircraft more difficult.

2. Only the US (F-35 and F-22 Raptor) and Russia (Su-57 Felon) have fifth-generation aircraft.

Which of the above statements is/are not correct? a) only 1

- b) only 2
- c) Both 1 and 2
- d) None of these
- Answer: b
- Q.4 Geostationary Operational Environment Satellite (GOES) is operated by which organization?
 - a) Indian Space Research Organization
 - b) National Oceanic and Atmospheric Administration

- c) European Space Agency
- d) India Meteorological Department

Answer: b

Q.5 With reference to the World Tariff Profile, consider the following statements:

1. It is a statistical yearbook that provides compre--hensive information on tariff and non-tariff mea--sures imposed only by WTO members.

2. It is published only by WTO.

3. It states that India has the highest average tariff in the Asia-Pacific region.

Which of the above statements is/are correct?

- a) only 1
- b) 1 and 2 only
- c) 2 and 3 only
- d) only 3

Answer: d

- Q.6 Which of the following language was added to the 8th Schedule of the Constitution by the 21st Amendment Act 1967?
 - Konkani a)
 - b) Dogri
 - c) Manipuri
 - d) Sindhi

Answer: d

Q.7 Consider the following statements :

In COVID-19, only involuntary-push based 1. reverse migration takes place.

2. In India, women dominate interstate rural to rural migration from the place of the last residence. Select the correct answer using the code given below.

- a) only 1
- b) only 2
- c) Both 1 and 2
- d) neither 1 nor 2

Answer: b

Q.8 With reference to the caste census, consider the following statements:

1. After independence, each census included data from Scheduled Castes and Scheduled Tribes.

2. The Socio-Economic and Caste Census (SECC) is conducted by the Ministry of Program







Implementation.

Which of the above statements is/are correct?

- a) only 1
- b) only 2
- c) Both 1 and 2
- d) neither 1 nor 2

Answer: a

- Q.9 For which of the following Smile scheme has been brought?
 - a) for children
 - b) Transgender and beggars
 - c) For those below the poverty line
 - d) for women

Answer: b

- Q10. Sankalp and Strive scheme are related to which sector?
 - a) health
 - b) education
 - c) Skill Development
 - d) Public Administration

Answer: c

- Q11. Where has Asia's largest Bio-CNG plant been set up recently?
 - a) Ahmedabad
 - b) Kolkata
 - c) Indore
 - d) Chennai

Answer: c

- Q12. Which organization has recently launched the 'Health Star Rating' initiative?
 - a) World Health Organization (WHO)
 - b) Food Safety and Standards Authority of India
 - c) Indian Council of Medical Research
 - d) Ministry of Youth Affairs and Sports

Answer: b

- Q13. Intracortical Visual Prosthesis (ICVP) has been in the news recently. This is a term related to which of the following fields?
 - a) a technique for controlling the speed of sunlight
 - b) A new technique of artificially keeping a person alive for some time after death

c) A new technique to decipher messages received from aliens

d) a technique for providing artificial vision Answer: d

- Q14. In which state of India is the 'Giant Metrewave Radio Telescope (GMRT)' located?
 - a) Tamil Nadu
 - b) Andra Pradesh
 - c) Jammu and Kashmir
 - d) Maharashtra

Answer: b

Q15. Consider the following statements about green hydrogen :

1. Green hydrogen is defined as hydrogen produced from biomass such as hydrogen produced from trees and plants.

2. Green Hydrogen Energy has an important role to play for India in meeting its Nationally Determined Contribution (INDC).

Which of the above statements is/are correct?

- a) only 1
- b) only 2
- c) Both 1 and 2
- d) None of these

Answer: b

- Q16. Where was the country's first water taxi service launched recently?
 - a) Ahmedabad
 - b) Kolkata
 - c) Mumbai
 - d) Chennai

Answer: c

Q17. Which of the following statement(s) is/are true regarding 'DefExpo-2022'?

1. This annual event will be held in Gandhinagar, Gujarat between March 10-13.

2. It is going to be the biggest defense exhibition in Asia.

3. It aims to project the country as an emerging defense manufacturing hub.

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3
- Answer: b
- Q18. According to the Economic Survey 2021-22, with which country is India's largest export?
 - a) USA
 - b) United Arab Emirates



- c) China
- d) UK

Answer: a

- Q19 In which of the following places, the conference on Indian temple architecture titled "Devayatanam
 - Tour of Indian Temple Architecture" organized by the Archaeological Survey of India was inaugurated recently?
 - a) Karnataka
 - b) Maharashtra
 - c) Kerala
 - d) Tamil Nadu

Answer: a

- Q20. The book "How to Prevent the Next Pandemic" has been authored by?
 - a) Bill Gates
 - b) Cyrus Poonawalla
 - c) Satya Nadella
 - d) Dr. Tedros Adrenom Gabreyesus

Answer: a

Important Days of March

DATES	DAYS
1 March	World Civil Defence Day
3 March	World Wildlife Day
8 March	International Women's Day
10 March	CISF Raising Day
13 March	No Smoking Day
15 March	World Consumer Rights Day
18 March	Ordnance Factories Day
20 March	International Day of Happiness
	World Sparrow Day
21 March	World Forestry Day
	World Down syndrome Day
22 March	World Water Day
23 March	World Meteorological Day
24 March	World Tuberculosis (TB) Day





Case Study

You are District Magistrate of a district in U.P. After controlling the second wave of the corona epidemic, the U.P. Government has ended the lockdown in several stages. The government is administering the vaccine to people on a large scale. All educational institutes have been opened. The economy is improving.

One day you inspected some primary schools situated in rural areas of your district. You noticed that most of the students are absent. Teachers informed you about the heavy decrease in the number of admissions in initial classes, this year.

Basic Shiksha Adhikari tells you two reasons for this problem. First, people are unwilling to send their children to school due to fear of corona. Second, the income of people has decreased due to the corona epidemic and lockdown. So students are also helping their family members in rice plantations and other agricultural work in fields. Some students have formed their group and are busy planting rice in the field of rich farmers in lieu of money.

(a) Now, what measures would you adopt to ensure the presence of students in primary schools.

(b) Evaluate each of these options and choose the option which you would adopt giving reasons.

In the given case, I am the District Magistrate of a district and the challenges in front of me are the following-

- High absenteeism of students in rural primary schools
- Fear of parents, preventing their children to resume schooling
- Children engaged in child labor
- The economic difficulty of people in villages

Measures that can be adopted by me :

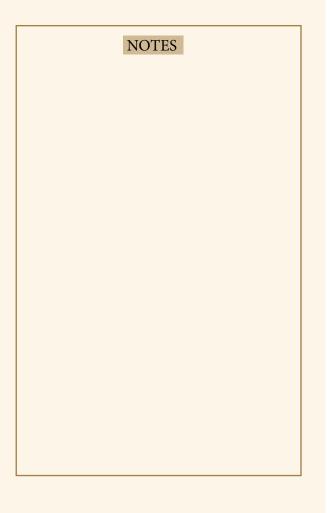
• I can launch an awareness drive regarding Corona prevention and benefits of literacy in villages concerned-This option will spread a positive message among villagers but due to their economic hardships, they won't let children resume schooling as there will be fewer hands at the farm.

• I can call concerned authorities to check child labor in villages and punish people responsible for it- this will allow the rescue of children from farms but will not ensure their return to school and even discourage the parents.

I can put stringent Corona safety and prevention

guidelines for the schools and also provide for the availability of sanitizer and masks for free. I can put on awareness drive against child labor and in favor of school education and can also help the rural population to come out of economic hardships- this will help to curb the fear of infection from the minds of parents and also help them economically.

I will choose the third option as it will enable children to resume schooling and also damper the fear of infection among parents. The free availability of masks and sanitizer will help in both of the above causes as the free availability of these items will not affect the pockets of villagers. With the effective implementation of MGN-REGA and other schemes with the same objective, the economic well off of villagers will be ensured. This will also draw children away from farm fields. A strict warning to landowners responsible for child labor will also ensure the above task.



Eminent Personality-Shanti Swarup Bhatnagar



Dr. Shanti Swarup Bhatnagar was a visionary scientist, who dreamed of making the country a leader in the field of science and started working on it. He is remembered as the father of Indian research laboratories. The credit for the establishment of the Council of Scientific and Industrial Research (CSIR), which has 38 scientific research laboratories across the country working in diverse fields of science, goes to Dr. Shanti Swarup Bhatnagar. He was a famous Indian scientist and academic administrator. He was born on February 21, 1894, in Shahpur (Presently Pakistan).

In the year 1913, after passing the Intermediate examination from Panjab University in first class, he joined the Forman Christian College, Lahore. From here he passed B.Sc in the year 1916 and MSc in 1919. After completing his master's degree, he went to England on a research fellowship. From here he received his doctorate in science from University College London in 1921 under the supervision of Professor Frederic G. Donnan of Chemistry. During his stay in England, he received a scholarship of 250 Euro annually from the Department of Scientific and Industrial Research, London.

He returned to India in August 1921 and taught for three years as a Professor of Chemistry at the Banaras Hindu University (BHU). Thereafter, he worked as a professor of 'physical chemistry' at the Punjab University, Lahore, as well as the director of the university's chemical laboratories.

This was the most important time of his scientific life in which he did fundamental scientific research. He made important contributions in the field of 'magneto-chemis-

try' in addition to work on emulsions, colloids and industrial chemistry. In the year 1928, he joined K.N. Mathur. Together they propounded the Bhatnagar-Mathur magnetic interference balance . It was one of the most sensitive instruments to determine the magnetic nature, which was later produced by the British company. When India got independence in the year 1947, the work of laying the foundation of science and technology in the country started. For this, Dr. Shanti Swarup Bhatnagar played an important role in making infrastructure and policies in the field of science and technology. He guided and encouraged many young and talented scientists. He also served as Secretary in the Ministry of Education and was also the Education Advisor to the Government of India. Under his leadership, oil refining centres were started, factories for the production of new metals like titanium and zirconium were built and a survey of mineral oil (petroleum) was also started.

Shanti Swarup Bhatnagar did important work in the field of practical chemistry. He played an important role in the establishment of the National Research Development Corporation (NRDC). The role of NRDC has been to bridge the gap between research and development. He played an important role in the promotion of the 'Industrial Research Movement' in the country. A total of twelve national laboratories were established in India under his leadership. The CSIR he founded is today leading India on the global stage in various fields of science and technology. Today CSIR has an active network of 38 National Laboratories, 39 Remote Centers, 3 Innovative Complexes and 05 Units across India. CSIR is working in the fields of radio and space physics, ocean science, geophysics, chemistry, pharmaceuticals, genomics, biotechnology etc.

In the year 1954, the Government of India honoured Dr. Shanti Swarup Bhatnagar with the Padma Bhushan award for his significant contribution in the field of science and engineering. Dr. Shanti Swarup Bhatnagar died of a heart attack on January 1, 1955. In 1957, CSIR announced Shanti Swarup Bhatnagar Award in his honour. This award is given to scientists who have made significant contributions in various fields of science.





POLITY TERMINOLOGY

Salient features of the constitution

About the Constitution

The Indian Constitution is unique in its content and spirit. It has many borrowed features from almost every Constitution of the world but the Constitution of India has several salient features that distinguish it from the Constitutions of the other countries.

Salient Features

1. Lengthiest Written Constitution

Constitutions are classified into 2 types

- written eg India, Germany, France, US
- unwritten eg UK, New Zealand and Israel.

Factors due to which we have such a large constitution are

- * Geographical factors :- Due to vastness and diversi--ty of the country
- * Historical factors:- Due to influence of the Govern--ment of India Act of 1935, which was bulky and many other.
- * Single Constitution for both the Centre and the states
- * Dominance of legal experts in the Constituent Assembly

2. Borrowed Constitution

• Government of India Act of 1935 :- Federal Scheme, Office of governor, Judiciary, Public Service Commissions, Emergency provisions and administrative details

٠ British Constitution ;- Parliamentary government, Rule of Law, legislative procedure, single citizenship, cabinet system, prerogative writs, parliamentary privileges and bicameralism

US Constitution :- Fundamental rights, independence of judiciary, judicial review, impeachment of the president, removal of Supreme Court and high court judges and post of vice-president

• Irish Constitution :- Directive Principles of State Policy, nomination of members to Rajya Sabha and method of election of President

• Japanese Constitution :- Procedure established by Law.

3. Rigid and Flexible :-

• Under Article 368, Constitution can be amended in 2 ways.

• In the Kesavananda Bharati case (1973), the Supreme Court ruled that under Article 368 the Parliament can amend the Constitution but it can't alter the 'basic structure' of the Constitution

4. Parliamentary Form of Government

The parliamentary system is also known as the 'Westminster' Model of Government, responsible Government and Cabinet Government.

Features of parliamentary form of government are:-

- * Presence of nominal and real executives
- Majority party rule *
- Collective responsibility of the executive to the legislature
- Ministers are members of either of the houses
- * Prime Minister is the leader
- * Only Lower House gets dissolved

5. Fundamental Rights

Part III of the Indian Constitution guarantees six fundamental rights.

6. Directive Principles of State Policy

The DPSP's are meant for the promotion of ideal of social and economic democracy. They seek to establish a 'welfare state' in India

7. Federal System

The Constitution of India establishes a federal system of Government. It contains two Government, division of powers, written Constitution, supremacy of Constitution, rigidity of Constitution, independent judiciary and bicameralism.

8. Unitary Bias

Unitary bias can be seen by a strong Centre, single Constitution, single citizenship, flexibility of Constitution, integrated judiciary, appointment of state governor by the Centre, all-India services, emergency provisions etc.

9. Fundamental Duties

By the 42nd ConstitutionalAmendment Act, 1976 on the recommendation of the Swaran Singh Committee, Fundamental duties were added. By the 86th Constitutional Amendment Act, 2002 one more fundamental duty was added





Target IAS Prelims 2022 English Medium

Starts from **16th Feb. 2022**

Civil Services, being the most coveted job in India, attracts millions of aspirants from all over the country. However, since the seats are limited, there is also a cut throat competition to succeed in these Examination. Preparation and Razor sharp strategy is the key to success. With this idea and intention, our highly qualified and experienced faculty members have developed distinguished strategy to cover different topics in a welldefined manner. We assist aspirants to develop crystal clear concepts and interdisciplinary approach to crack this coveted exam. Our innovative teaching techniques create a reliable road map to achieve this golden goal. We empower you to fulfill dreams and expectations while nourishing the ingredients of hard-work, determination, confidence with right direction and exam cracking strategy. We work proactively with Aspirants to improve their performance with rapidly changing patterns of UPSC

A student can choose any of the following courses according to his or her requirement.

Target IAS Prelims 2022

Fee: 28,000/-

Objective	Features	Course Content	Faculty Name
The course has been designed to give extensive coverage of all the sections of General Studies including Current Affairs. This program would provide an in-depth understanding of the Dynamic part of General Studies where Expert Faculties would be analyzing the events and developments through live classes and side by side, students would be provided a rich knowledge content pertaining to the Static nature of General Studies through Live / Delayed Live or Recorded classes	 * 100 Hrs. of Live Classes which will cover the Dynamic portion of General Studies. * 150 Hrs. of Live / Delayed Live/ Recorded classes which will cover the Static portion of GS which can be viewed by the students according to their ease. * Complete CSAT course content would be covered. * Half an hour of doubt clearing session at the end of all Live classes. * Academic chat support would be provided. * Each class would be of 2 Hours. * Downloadable Study material in PDF format would be provided in the Application. * Course would include 24 Soft Copies of Perfect 7 Magazine worth Rs.2000. 	General Studies- Static Indian History+ Art & Culture Geography of India & World Indian Polity & Governance Economy General Science General Studies- Dynamic (Current Issues 8 Indian Polity & Governance	Javed Haque Apurva Mehrotra Kumud Ranjan Kumar Amit Peeyush & Developments) Kumud Ranjan
which they can view unlimited times. The Course would also contain the CSAT part where students would develop a better understanding of various Principles and their applications. Concept building and clarifications would also be a part of the curriculum. Various Techniques would be discussed and taught that would help to solve the questions that come in this section.		 * Each class would be of 2 Hours. * Downloadable Study material in PDF format would be provided in the Application. * Course would include 24 Soft Copies of Perfect 7 Magazine worth Rs.2000. 	Environmental Ecology, Bio-Diversity & Climate Change Economy + Budget & Economic Survey Technology Health International Issues CSAT Maths and Reasoning Comprehension

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General Studies - Target IAS Prelims 2022

Fee: 18,000/-

Objective	Features	Course Content	Faculty Name
The course has been designed to give extensive coverage of all the sections of General Studies including Current Affairs. This program would provide an in-depth understanding of the Dynamic part of General Studies where Expert Faculties would be analyzing the events and developments through live	 Features * 100 Hrs. of Live Classes which will cover the Dynamic portion of General Studies. * 150 Hrs. of Live / Delayed Live/ Recorded classes which will cover the Static portion of GS which can be viewed by the students according to their ease. * Half an hour of doubt clearing session at the end of all Live classes. * Academic chat support would be provided. * Each class would be of 2 Hours. * Downloadable Study material in PDF format would be provided in the Application. 	Geography of India & World Indian Polity & Governance Economy	Faculty Name Javed Haque Apurva Mehrotra Kumud Ranjan Kumar Amit
classes and side by side, students would be provided a rich knowledge content pertaining to the Static nature of General Studies through Live / Delayed Live or Recorded classes which they can view unlimited times.		General Science General Studies- Dynamic (Current Issues 8 Indian Polity & Governance Environmental Ecology, Bio-Diversity & Climate Change Economy + Budget & Economic Survey Technology	Peeyush & Developments) Kumud Ranjan Sanjay Singh Kumar Amit Q. H. Khan & Peeyush
		Health International Issues	Javed Haque Bharat

Spotlight Current Affairs - IAS Prelims 2022

Objective	Features	Course Content	Faculty Name
The course has been designed to give extensive	* 100 Hrs. of Live Classes which will cover the	General Studies- Dynamic (Current Issues	& Developments)
coverage of the Dynamic part of General Studies. In	Dynamic portion of the Current Affairs under GS.	Indian Polity & Governance	Kumud Ranjan
this course Expert Faculties would be analyzing and	* Half an hour of doubt clearing session at the end of	Environmental Ecology, Bio-Diversity & Climate Change	Sanjay Singh
explaining in detail, all the current events and	all Live classes.	Economy + Budget & Economic Survey	Kumar Amit
developments which are of dynamic nature through	* Academic chat support would be provided.	Technology	Q. H. Khan & Peeyush
live classes.	* Each class would be of 2 Hours.	Health	Javed Haque
	* Downloadable Study material in PDF format	International Issues	Bharat

UPSC CSAT

Fee: 10,000/-

Fee: 10,000/-

Objective	Features	Course Content	Faculty Name
The Course is designed to develop a better understanding of various Principles and their applications amongst students. Concept building and	 * 150 Hrs. of Live Classes * Half an hour of doubt clearing session at the end of all Live classes. 	Maths and Reasoning	Mukesh Singh
clarifications would also be a part of the curriculum. Various Techniques would be discussed and taught that would help to solve the questions that come in this section.	 * Academic chat support would be provided. * Each class would be of 2 Hours. * Downloadable Study material in PDF format would be provided in the Application. 	Comprehension	Shweta Singh

3 days of additional classes would be provided which would cover Miscellaneous Topics like Sports, Awards, Places, Books and other such important areas.

Attractive Discounts for Dhyeya Students

- 100% Discount on Current Affairs (Dynamic Portion) for all Dhyeya Students who took admission on or after 1st April 2020
- 50% Discount on Current Affairs (Dynamic Portion) for all Dhyeya Students who took admission before 1st April 2020

SYLLABUS OF PRELIMS

	Paper I (200 Marks) Duration : 2 Hours
۲	Current events of national and international importance.
۲	History of India and Indian National Movement.
۲	Indian and World Geography-Physical, Social, Economic Geography of India and the World.
۲	Indian Polity and Governance - Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.
۲	Economic and Social Development, Sustainable Development, Poverty, Inclusion Demographics, Social Sector initiatives, etc.
۲	General issues on Environmental Ecology, Bio-diversity and Climate Change - that do not require subject specialization.
•	General Science.

	Paper II (200 Marks) Duration : 2 Hours
۲	Comprehension
۲	Interpersonal skills including communication skills;
۲	Logical reasoning and analytical ability
۲	Decision making and problem solving.
۲	General mental ability
۲	Basic numeracy (numbers and their relations, order of magnitude, etc.) (Class X level),
۲	Data Interpretation (charts, graphs, tables, data sufficiency etc Class X level)



Target UPPCS Prelims 2022 English Medium

Starts from **16th Feb. 2022**

Civil Services, being the most coveted job in India, attracts millions of aspirants from all over the country. However, since the seats are limited, there is also a cut throat competition to succeed in these Examination. Preparation and Razor sharp strategy is the key to success. With this idea and intention, our highly qualified and experienced faculty members have developed distinguished strategy to cover different topics in a welldefined manner. We assist aspirants to develop crystal clear concepts and interdisciplinary approach to crack this coveted exam. Our innovative teaching techniques create a reliable road map to achieve this golden goal. We empower you to fulfill dreams and expectations while nourishing the ingredients of hard-work, determination, confidence with right direction and exam cracking strategy. We work proactively with Aspirants to improve their performance with rapidly changing patterns of UPPSC

A student can choose any of the following courses according to his or her requirement.

Target UPPCS Prelims 2022

Fee: 28,000/-

Sandeep Sahil

Objective	Features	Course Content	Faculty Name	
The course has been designed to give extensive	course has been designed to give extensive * 100 Hrs. of Live Classes which will cover the General Studi		es-Static	
coverage of all the sections of General Studies. This	Dynamic portion of the General Studies.	Indian History+ Art & Culture	Javed Haque	
program would provide an in-depth understanding	* 150 Hrs. of Live / Delayed Live / Recorded classes	Geography of India & World	Apurva Mehrotra	
of the Dynamic part of General Studies where Expert Faculties would be analyzing the events and	which will cover the Static portion of GS which can be viewed by the students according to their	Indian Polity & Governance	Kumud Ranjan	
developments through live classes and side by	ease.	Economy	Kumar Amit	
side, students would be provided a rich knowledge	* Complete CSAT course content would be	General Science	Peeyush	
Studies through Live / Delayed Live or Recorded	ertaining to the Static nature of General covered. rough Live / Delaved Live or Recorded * Half an hour of doubt clearing session at the end		General Studies- Dynamic (Current Issues & Developments)	
classes which they can view unlimited times.	of all Live classes.	Indian Polity & Governance	Kumud Ranjan	
The Course would also contain the CSAT part where		Environmental Ecology, Bio-Diversity & Climate Change	Sanjay Singh	
students would develop a better understanding of		Economy + Budget & Economic Survey	Kumar Amit	
various Principles and their applications. Concept		Technology	Q. H. Khan & Peeyush	
building and clarifications would also be a part of		Health	Javed Haque	
the curriculum. Various Techniques would be	* Course would include 24 Soft Copies of Perfect 7	International Issues	Bharat Singh	
discussed and taught that would help to solve the questions that come in this section and the section solve the solv	CSAT			
questions that come in this section.	would be provided.	Maths and Reasoning	Mukesh Singh	
		Comprehension	Shweta Singh	
		English Language	Athar Abbasi	

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General Hindi



General Studies - Target UPPCS Prelims 2022

Fee: 18,000/-

Objective	Features	Course Content	Faculty Name
The course has been designed to give extensive	* 100 Hrs. of Live Classes which will cover the Dynamic portion of General Studies.	General Studies- Static	
coverage of all the sections of General Studies		Indian History+ Art & Culture	Javed Haque
including Current Affairs. This program would	* 150 Hrs. of Live / Delayed Live/ Recorded	Geography of India & World	Apurva Mehrotra
provide an in-depth understanding of the Dynamic part of General Studies where Expert Faculties	classes which will cover the Static portion of GS which can be viewed by the students according	Indian Polity & Governance	Kumud Ranjan
would by analyzing the events and developments	ting the events and developments ses and side by side students would ch knowledge content pertaining to of General Studies through Live / Recorded classes which they can the there ase. * Half an hour of doubt clearing session at the end of all Live classes. * Academic chat support would be provided. * Each class would be of 2 Hours.	Economy	Kumar Amit
through live classes and side by side students would be provided a rich knowledge content pertaining to the Static nature of General Studies through Live / Delayed Live or Recorded classes which they can view unlimited times.		General Science	Peeyush
		General Studies- Dynamic (Current Issues & Developments)	
		Indian Polity & Governance	Kumud Ranjan
		Environmental Ecology, Bio-Diversity & Climate Change	Sanjay Singh
		Economy + Budget & Economic Survey	Kumar Amit
		Technology	Q. H. Khan & Peeyush
		Health	Javed Haque
		International Issues	Bharat Singh

Spotlight Current Affairs - UPPCS Prelims 2022

Objective	Features	Course Content	Faculty Name
The course has been designed to give extensive	* 100 Hrs. of Live Classes which will cover the	General Studies- Dynamic (Current Issues 8	& Developments)
coverage of the Dynamic part of General Studies. In	Dynamic portion of General Studies. * Half an hour of doubt clearing session at the end of all Live classes.	Indian Polity & Governance	Kumud Ranjan
this course Expert Faculties would be analyzing and		Environmental Ecology, Bio-Diversity & Climate Change	Sanjay Singh
explaining in detail, all the current events and		Economy + Budget & Economic Survey	Kumar Amit
developments which are of dynamic nature through live classes.		Technology	Q. H. Khan & Peeyush
		Health	Javed Haque
	would be provided in the Applicator	International Issues	Bharat Singh

UPPCS CSAT

Fee: 10,000/-

Fee: 10,000/-

Objective	Features	Course Content	Faculty Name
The Course is designed to develop a better understanding of various Principles and their	 * Half an hour of doubt clearing session at the end of all Live classes. * Academic chat support would be provided. * Each class would be of 2 Hours. 	Maths and Reasoning	Mukesh Singh
applications amongst students. Concept building and clarifications would also be a part of the curriculum.		Comprehension	Shweta Singh
Various Techniques would be discussed and taught		English Language	Athar Abbasi
that would help to solve the questions that come in this section.		General Hindi	Sandeep Sahil

Students who have enrolled for any of the first 3 courses, would be provided additional 10 days of UP Special Classes.

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۲	Indian Polity and Governance - Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.
٢	Economic and Social Development, Sustainable Development, Poverty, Inclusion Demographics, Social Sector initiatives, etc.
۲	General issues on Environmental Ecology, Bio-diversity and Climate Change - that do not require subject specialization.
٥	General Science.

	Paper II (200 Marks) Duration : 2 Hours	
•	Comprehension	
•	Interpersonal skills including communication skills.	
•	Logical reasoning and analytical ability.	
•	Decision making and problem solving	
•	General mental ability	
•	Elementary Mathematics upto ClassX level-Arithmetic, Algebra,Geometry and Statistics	
•	General English upto Class X level	
•	General Hindi upto Class X level	

AN INTRODUCTION



DhyeyalAS, one and half decade old institution, was founded by Mr.Vinay Singh and Mr. Q. H. Khan. Ever since its emergence it has unparallel track record of success. Today, it stands tall among the reputed institutes providing coaching for Civil Services Examination (CSE). The institute has been very successful in making potential aspirants realize their dreams which is evident from the success stories of the previous years.

As the nation progresses, the young generations become more conscious and aware about their career options. There is plethora of jobs and one among them is civil services, the most prestigious service in the country, which needs no introduction. It attracts many young minds hailing from almost all spectra of academic disciplines. The popular belief that the examination for this service is only meant for the brilliant lots has become a taboo as it also attracts the hardworking, sincere and disciplined minds. The saying- "In the end passion and hard work can substitute natural talent" holds true. It gives immense power and opportunity for young folks to bring about the positive changes in the society which would bring harmony and development. It inculcates values, moral, ethos and feeling of national integrity.

Quite a large number of students desirous of building a career for themselves are absolutely less equipped for the fairly tough competitive tests they have to appear in. Several others, who have a brilliant academic career, do not know that competitive exams are vastly different from academic examination and call for a systematic and scientifically planned guidance by a team of experts. Here one single move may invariably put one ahead of many others who lag behind. Dhyeya IAS is manned with qualified & experienced faculties besides especially designed study material that helps the students in achieving the desired goal.

Civil Services Exam requires knowledge base of specified subjects. These subjects though taught in schools and colleges are not necessarily oriented towards the exam approach. Classes at Dhyeya IAS are different from classes conducted in schools and colleges with respect to their orientation. Classes are targeted towards the particular exam. Classroom guidance at Dhyeya IAS is about improving the individuals' capacity to focus, learn and innovate as we are comfortably aware of the fact that you can't teach a person anything, you can only help him find it within himself.

We feel that despite brilliance and diligence, most of the students are lacking proper guidance and aptitude needed to clear Civil Services Examination. This is why, we at Dhyeya IAS amalgamated the traditional as well as modern approach of teaching by incorporating best educators of the industry ably supported by Academic Associates, Class Notes and printed Study Material, routine as well as surprise Tests. Due to its arduous efforts, Dhyeya IAS is able to carve a niche among all the civil services coaching institutes in India. Access to an institution is as important as the quality of Institution. Our faith in this philosophy made us grow. With 12 Face to Face Centers located in different parts in India, Distance Learning Program, Live Streaming Centers and Residential Academy, we have made truly pan India presence. Ever since the foundation the institute has produced a heavy pool of bureaucrats both at central and state level. Dhyeya IAS not only aims at imparting the content of civil services in best way but also nurturing the aspirants as leaders of tomorrow who have a responsibility of fulfilling the dreams of around 1.4 billion Indians. Dhyeya IAS has guided over 50,000 aspirants with more than 4000 selections in civil services. Our journey is a small contribution for the development of the society and nation by nurturing the potential civil services aspirants.

Considering the toughness of Civil Services Exam, where success rate is a meager 0.1 percent, Dhyeya IAS has continuously produced phenomenal results over the years. Year after Year Dhyeya IAS is being recognized for imparting guidance to civil services aspirants using benchmarked quality practices. On the basis of scalability, innovation, achievements, impact potential our efforts and contribution have been acknowledged and rewarded with Education Excellence Awards by ET NOW, Brands Academy, Times of India, etc. This has enhanced motivation, pride and self-esteem of entire Dhyeya family.



Face to Face Centres

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क्लिक करें जिससे सीधे आप हमारे चैनल में पहुँच जायेंगे।

You can also join Telegram Channel through our website

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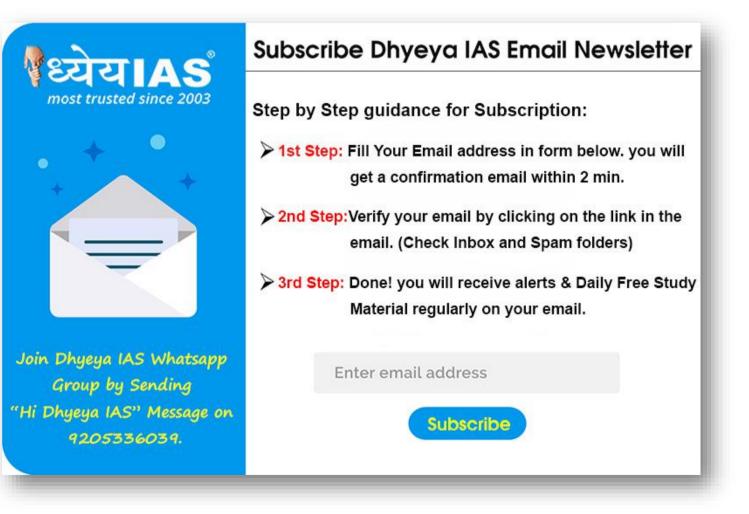


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जो विद्यार्थी ध्येय IAS के <u>व्हाट्सएप ग्रुप</u> (Whatsapp Group) से जुड़े हुये हैं और उनको दैनिक अध्ययन सामग्री प्राप्त होने में समस्या हो रही है | तो आप हमार<u>ेईमेल लिंक Subscribe</u> कर ले इससे आपको प्रतिदिन अध्ययन सामग्री का लिंक मेल में प्राप्त होता रहेगा | **ईमेल से Subscribe करने के बाद मेल में प्राप्त लिंक को क्लिक करके पुष्टि (Verify) जरूर करें** अन्यथा आपको प्रतिदिन मेल में अध्ययन सामग्री प्राप्त नहीं होगी |

<mark>नोट (Note):</mark> अगर आपको हिंदी और अंग्रेजी दोनों माध्यम में अध्ययन सामग्री प्राप्त करनी है, तो आपको दोनों में अपनी ईमेल से Subscribe करना पड़ेगा | आप दोनों माध्यम के लिए एक ही ईमेल से जुड़ सकते हैं |





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