

PERFECT 7

Weekly Current Affairs

An Initiative of Dhyeya IAS



1 | Azadi Ka Amrit Mahotsav

India @ 75

- | | |
|--|---|
| 2 Population Stabilisation in India :
Need of the Hour | 5 E-Commerce Marketplaces :
Possible Enablers for MSMEs |
| 3 GNCTD (Amendment) Act, 2021 :
An Introduction | 6 Artificial Intelligence and Ethical
Challenges |
| 4 Investing in Public Health : Core
of Present | 7 Single-use Plastic : Hidden
Pandemic |

DHYEYA IAS : AN INTRODUCTION



Vinay Kumar Singh
Founder & CEO

The guiding philosophy of the institute, throughout, has been creation of knowledge base. Dhyeya IAS inculcates human values and professional ethics in the students, which help them make decisions and create path that are good not only for them, but also for the society, for the nation, and for the world as whole. To fulfill its mission in new and powerful ways, each student is motivated to strive towards achieving excellence in every endeavor. It is done by making continuous improvements in curricula and pedagogical tools.

The rigorous syllabi not only instills in them, a passion for knowledge but also attempts to teach them how to apply that knowledge in real-life situations. The programmes lay emphasis on well-rounded personality development of the students and also in inculcating the values of honesty and integrity in them.



Q.H. Khan
Managing Director

Dhyeya IAS is an institution that aims at the complete development of the student. Our faculty are hand-picked and highly qualified to ensure that the students are given every possible support in all their academic endeavors. It is a multi-disciplinary institution which ensures that the students have ready access to a wide range of academic material. Our brand of education has broad horizons as we believe in exposure. Our students are encouraged to widen their knowledge base and study beyond the confinements of the syllabus. We aim to lend a gentle guiding hand to make our students recognize their inner potential and grow on their own accord into stalwarts of tomorrow's society.

PERFECT 7 : AN INTRODUCTION



Kurban Ali
Chief Editor

With immense pleasure I would like to inform you that the new version of 'Perfect 7', from the Dhyeya IAS, is coming with more information in a very attractive manner. Heartily congratulations to the editorial team. The 'Perfect 7' invites a wider readership in the Institute. The name and fame of an institute depends on the caliber and achievements of the students and teachers. The role of the teacher is to nurture the skills and talents of the students as a facilitator. This magazine is going to showcase the strength of our Institute. Let this be a forum to exhibit the potential of faculties, eminent writers, authors and students with their literary skills and innovative ideas.

Please do visit our website www.dhyeyaias.com and our youtube channel for regular and updated information on current affairs.



Ashutosh Singh
Managing Editor

We have not only given the name 'Perfect 7' to our magazine, but also left no stone unturned to keep it 'near to perfect'. We all know that beginning of a task is most vital and full of challenges. So we met the same fate.

Publishing 'Perfect 7' provided us various challenges because from the beginning itself we kept our bar too high to ensure the quality. Right from the very first issue we had a daunting task to save aspirants from the 'misinformation' or 'overdose of information'. Focussing on civil services examination 'Perfect 7' embodies in itself perfect friend and guide in your preparation. This weapon is built to be precise yet comprehensive. It is not about bombardment of mindless facts, rather an analysis of various facets of the issues, selected in a systematic manner. We adopted the 'Multi Filter' and 'Six Sigma' approach, in which a subject or an issue is selected after diligent discussion on various levels so that the questions in the examination could be covered with high probability.

Being a weekly magazine there is a constant challenge to provide qualitative study material in a time bound approach. It is our humble achievement that we feel proud to make delivered our promise of quality consistently without missing any issue since its inception.

Your suggestions and popular demands always motivate us and keep our morale high.

May this version of 'Perfect 7' instill a new energy and a new spirit in you. We wish that the bond of affection between you and Dhyeya IAS reaches at a new height.



Send us your suggestions, comment, views and feedback for guiding us on

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PREFACE



Dhyeya family has decided to bring a new colourful and vibrant version of '**Perfect 7**' – a panacea for current affairs, which will add positive and dynamic energy in your preparation.

'**Perfect7**' is an outstanding compilation of current affairs topics as per the new pattern of Civil Services Examination (CSE). It presents weekly analysis of information and issues (national and international) in the form of Articles, News Analysis, Brain Boosters, PIB Highlights and Graphical Information, which helps to understand and retain the information comprehensively. Hence, '**Perfect 7**' will build in-depth understanding of various issues in different facets.

'**Perfect7**' is our genuine effort to provide correct, concise and concrete information, which helps students to crack the CSE. This magazine is the result of the efforts of the eminent scholars and the experts from different fields. '**Perfect 7**' is surely a force multiplier in your effort and plugs the loopholes in the preparation.

We believe in environment of continuous improvement and learning. Your constructive suggestions and comments are always welcome, which could guide us in further revision of this magazine.

Omveer Singh Chaudhary

Editor
Dhyeya IAS

As a proud jewel of Dhyeya IAS, '**Perfect 7**' now comes in a new coloured avatar. '**Perfect 7**' is a quintessential part of your preparation strategy for Civil Services Examination. A regular and manageable dose of current affairs will now reach you in new format, making it more reader friendly. Our humble attempt to serve you is surely rewarded by your appreciations. It encourages us to innovate and provide the best as per our ability.

A dedicated team of experts at Dhyeya IAS toils night and day to make your dream of Civil Services come true. I heartily thank and express my gratitude to the esteemed readers and all the people involved in making this magazine a shining star in the galaxy of Dhyeya IAS.

Rajat Jhingan

Editor
Dhyeya IAS

PERFECT 7

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An Initiative of Dhyeya IAS

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Contents

➤ 7 Important Issues & Subjective Questions Based on Them	01-15
➤ Azadi Ka Amrit Mahotsav : India @ 75	
➤ Population Stabilisation in India : Need of the Hour	
➤ GNCTD (Amendment) Act, 2021 : An Introduction	
➤ Investing in Public Health : Core of Present	
➤ E-Commerce Marketplaces : Possible Enablers for MSMEs	
➤ Artificial Intelligence and Ethical Challenges	
➤ Single-use Plastic : Hidden Pandemic	
➤ 7 Important Brain Boosters	16-22
➤ 7 Important MCQs (based on Brain Boosters)	23-24
➤ 7 Important News	25-29
➤ 7 Important Practice Questions (for Mains)	30
➤ 7 Important Facts (for Prelims)	31
➤ 7 Important Quotes (for Essay and Answer Writing)	32

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Hindi & English
Current Affairs
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7 IMPORTANT ISSUES

01

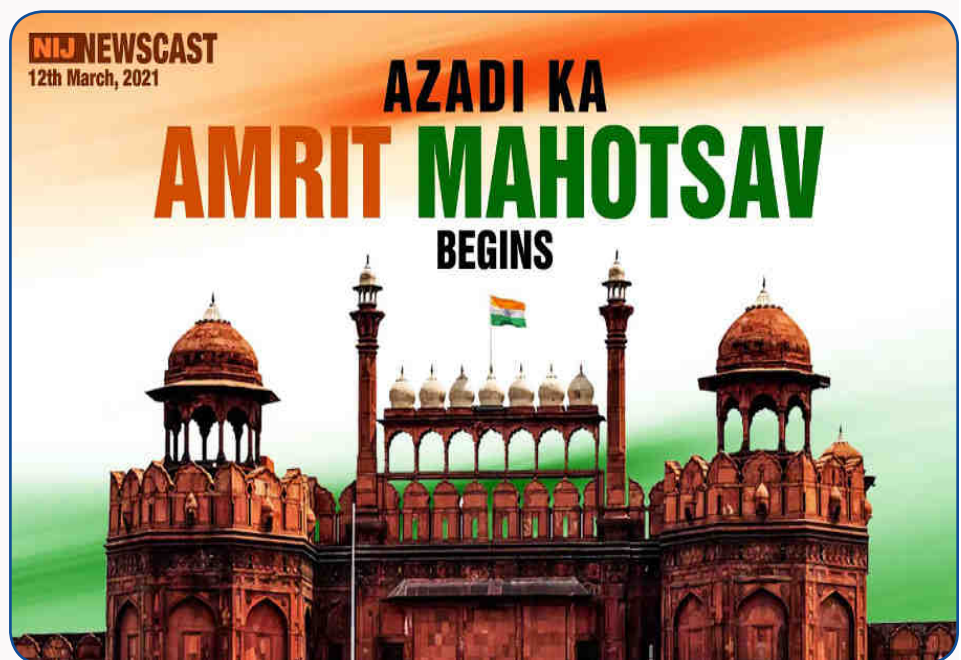
Azadi Ka Amrit Mahotsav : India @ 75

Why in News?

- ♦ To commemorate the 75th Anniversary of India's Independence, the government of India has launched Azadi Ka Amrit Mahotsav (India @ 75) on March 12. Azadi Ka Amrit Mahotsav (India @ 75) is a series of cultural events and various programmes. The Mahotsav will be celebrated till August 15, 2022. August 15 next year will mark 75 years of freedom for India from the British rule.
- ♦ The Central Government has constituted a National Committee chaired by Modi with 259 members to formulate programmes for the "commemoration of 75th anniversary of the Indian independence at national and international level".

About the Event

- ♦ The idea behind the Mahotsav that starts the celebration of 75 years of India's Independence 75 weeks before August 15, 2022 and extends upto Independence Day 2023 is to showcase accomplishments since 1947 so as to instill a sense of pride, and to create a vision for 'India@2047'.



- ♦ The celebrations of the 75th year of Independence would be based on public participation and revolve around five themes — the freedom struggle and ideas, achievements, actions and resolve at 75.
- ♦ The States/UTs to plan various commemoration activities for the event and underlined that every State and Union territory will launch a people-intensive citizen campaign with an emphasis on India's glorious history and culture, technological development and digital intervention.
- ♦ Prime Minister Narendra Modi has flagged off a commemorative 'Dandi March' on March 12 to launch the celebrations of the 75th year of Independence. It will be 21-day long Dandi March from a ground beside the Abhay Ghat, the resting place of late Prime Minister Morarji Desai near the Sabarmati Ashram.
- ♦ The Dandi March or Salt March was part of Mahatma Gandhi's non-violent protest against the British monopoly on production of salt. Led by Gandhi, 78 people started

the 24-day march on March 12 and reached Dandi on April 5, 1930. After making salt at Dandi, Gandhi headed to Dharasana Salt Works, 40 km south, but was arrested on May 5.

India's Achievement since Independence

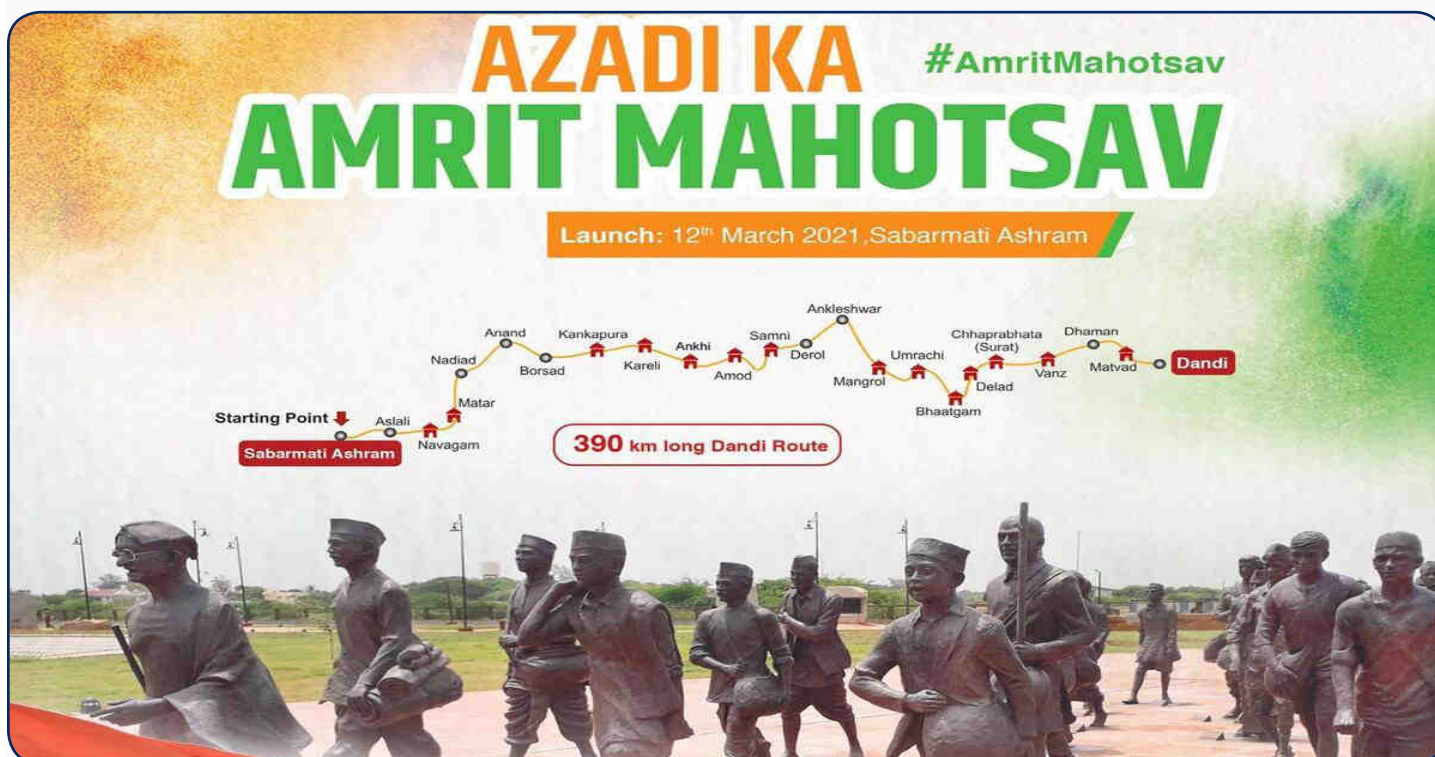
- ◆ While it is impossible to count all the achievements India has garnered. We've come a long way since Independence:
- ◆ Agriculture: India has become a food self-sufficient and also an agricultural exporter country since Independence. India's foodgrain production rose five times over seven decades. Green Revolution, land reforms, Government's constant focus to Agriculture and allied sector have made a better life for farmers. Increasing the reach of formal credit, insurance coverage, MSP announcement, Food Procurement schemes, formation of dedicated Agricultural Agencies, adequate allocation of funds, dedicated acts and schemes have made it possible.
 - ◆ Share of Agriculture and Allied Sectors in Gross Value Added at current prices is 17.8% for 2019-20. The current nominal value of Agriculture to the GDP is \$471 billion against \$16.5Billion during Independence.
- ◆ Industry: The impact of British Policies and the Industrial Revolution led to the decay of Indian handicraft industry, which was not followed by the rise of modern Industrialisation in India

by Britishers. After Independence, goods/capital goods industries were focused which got boost after Second Five-Year plan. The focus remained on setting up Core Industries as Infra/Power Industries with the help of foreign countries contribution. Later, it turns to machine building and composition. With the new industrial policy, liberalisation, trade barrier reduction, easier access to foreign Investments and Technology, initiatives by the Banking sector as liberal Interest rates, rise in exports and focus on developing self-sustaining industrial cycle.

- ◆ It took about seven decades to being a massive \$800 Billion value chain from what ruins Britishers had left. FDI equity inflows increased to US\$49.98 billion as compared to null during Independence. India now even is reliable in Nuclear Power Production and has been a leader in Renewable Energy Production, while the SEZs, Ease of Doing business policies, class infrastructure has attracting more opportunities.
- ◆ India's current share in global merchandise exports is 1.67 per cent, which is aimed at 5% by 2025 and it contributes about 27% of Economy.
- ◆ Service : On the road of being an agrarian economy to becoming a tertiary sector economy, service sector which includes 'Financial, real estate & professional services, Public Administration, defence and other services, trade, hotels, transport, communication and

services related to broadcasting; has become the backbone of country.

- ◆ It contributes around 54.3% of the Indian GDP in 2018-19. The services sector is the largest sector in India. GDP contribution at Nominal prices for the Services sector is estimated at \$1.5 Trillion and nearly four-fifths of total FDI inflow into India
- ◆ Economy: India is currently \$2.87 Trillion Economy, making it fifth largest Economy of the world against the \$30.6 billion Economy in 1950.
- ◆ Democracy: Establishing a successful Democracy and uniting various cultures together; India took a democratic leap by conducting its first general elections in 1951, where Jawaharlal Nehru became India's first prime minister. Despite the hitherto barriers now and then, it is still blooming absorbing the various changes as Electronic Voting, Universal Franchise, Anti-Defection laws, multi-party systems etc.
- ◆ Infrastructure/ Defence/Space Technology Achievements: Advances in Space, Defense and Nuclear Technology have concreted India's position in World. India sent a satellite to the moon with Chandrayan 1 to Mission of Mars in 2014. India has now become a hub for providing global space services.
 - ◆ India is currently the world's second-largest telecommunications market. In terms of availability of roads



per unit area, the road density (per 1000 km²) at all- India is 1288.74 km. Also India has one of the world's biggest Railway networks spanning over 68,000km. Also, India is the world's third largest producer and third largest consumer of electricity.

- ♦ The successful nuclear test by 'Smiling Buddha' to AGNI-VI to INS-Arihant, India is committed to its goal of maintain regional and world peace.
- ♦ Social Infrastructure: From a Country where Literacy levels were as down as 50%; India reduced its "out of school" children by over 90 per cent and achieved "universal primary education" in 2015 and achieved over 75% literacy rate. Not

to forget about the achievement in High Education sector.

- ♦ The constant intervention in Health-care and Public Health, has helped to provide pan-India vaccinations models to eliminated diseases as Polio, while easy Hospitalisation and Healthcare services in far-flung areas improve the masses.
- ♦ Housing for All, removing poverty, providing gender-equality, narrowing the gap of Income-Inequality, making more women friendly environment, providing improved Justice and lawsservice, inclusive growth, 100% enrollment rates, providing quality infrastructure, protecting Environment and Cultural Heritage are still base goals country is determined too.

Conclusion

- ♦ India's achievements are infinite. It would be impossible to present decades of glory on a day. Azadi Ka Amrit Mahotsav can reflect the glorious 75years, from the struggles of freedom fighters to the soldiers who are still protecting the borders; from a farmer in paddy field to a tech entrepreneur in Silicon city of India; showcasing the various cultural heritages of each State and UTs.



General Studies Paper- I

Topic:

- The Freedom Struggle - its various stages and important contributors/contributions from different parts of the country.

Q. India is soon going to complete 75 Years of Independence. Comment your opinion about India's journey so far. Are there still any major issues we are ignoring? Justify.

02

Population Stabilisation in India : Need of the Hour

Context

- ◆ Only Ten Indian States have achieved the replacement levels of fertility (total fertility rate of 2.1).
- ◆ The National Population Policy, 2000 affirmed a commitment to achieve replacement levels of fertility by 2010.

About Replacement level of Fertility

- ◆ Replacement level fertility is the level of fertility at which a population exactly replaces itself from one generation to the next. In developed countries, replacement level fertility can be taken as requiring an average of 2.1 children per woman.
- ◆ In countries with high infant and child mortality rates, however, the average number of births may need to be much higher. Replacement level fertility is not associated with an unique set of age-specific birth rates.

Present Scenario

- ◆ Ten states — Karnataka, Punjab, Gujarat, Assam, Telangana, Andhra Pradesh, West Bengal, Maharashtra, Tamil Nadu and Kerala — and Jammu and Kashmir, have achieved the levels of fertility.
- ◆ Fertility has been declining in India for some time now. A comparison of 2011 and 2018 SRS statistical reports showed that Total Fertility Rate (TFR) declined from 2.4 to 2.2 during this period.
- ◆ India's population is expected to grow by 25%, with reference to 2011, to 1.52 billion by 2036, according to the final report of the technical group on population projections dated July 2020.

- ◆ The report projects that as much as 70% of this increase will be in urban areas. Consequently, the proportion of the rural population will decline from 69% to 61% as the urban population is projected to increase more than twice the projected increase in the rural population.

Replacement Fertility Goals and Regional Division

- ◆ Five Southern states had accomplished this goal much earlier, irrespective of literacy and education levels and could permeate all sections, while states like Uttar Pradesh and Bihar are continue to drift.
- ◆ However, other states like Gujarat, Assam, West Bengal and Telangana are also showing the sign of declining. This fertility decline over half of India has cut across all sections of society — the privileged and the poor, those educated or not, and the high and low caste. The National Family Health Survey-4 has also shown how TFR has reduced even among illiterate women from all religions in the southern states — even in Kerala and Telangana which have a high proportion of Muslims.

Projected Growth

- Uttar Pradesh, which would already be the eighth-most populous in the world if it were a country, will see its population increase from 199 million in 2011 to 258 million in 2036 — an increase of almost 30%.
- On the other hand, the five southern states of Kerala, Karnataka, Andhra Pradesh, Telangana and Tamil Nadu will account for only 9% of the growth.

- ◆ Fertility decline was achieved because southern governments proactively urged families to have only two children, followed by female sterilisation immediately thereafter.
- ◆ UP and Bihar are 23 per cent of India's population and are projected to grow by over 12 per cent and 20 per cent in the next 15 years. Their high TFR pervades all religious groups despite the allegation that high fertility prevails disproportionately only among Muslims.
- ◆ In some districts of Northern States, the contraceptive prevalence rate is less than 10 per cent. While neither Hindus nor Muslims use modern family planning methods
- ◆ Bihar has the highest fertility rate in the country and also the highest outmigration. Almost half the women in some districts have a migrant husband and empirical evidence shows women's unwillingness to seek contraception in the absence of the husband, resulting in unprotected sex when he returns.
- ◆ Population control programmes in Uttar Pradesh as SIFPSA (State Innovations in Family Planning Services Agency) has not been implemented well. Women in rural UP are still giving birth to four or more children.

Barriers

- ◆ Son preference, falling sex ratios, and abhorrence towards begetting a second or third female child are negative developments that have penetrated even into rural areas.
- ◆ Weak educational and economical status of women, poor

implementation of population stabilisation programmes, role of political/religious leaders to promote child births for larger community viz a particular caste, religion, or sect; as a method of staying relevant in country.

- ◆ Prevalent backwardness in society, gender and religion issues regarding child births, tapered reach and knowledge of women to the contraception and personal health.

Concerns

- ◆ Along with population stabilisation, skewed sex ratio could be a problem for India. A balanced sex ratio is essential to secure social cohesion. China is already facing a demographic catastrophe because its nearly four decade-long one child policy resulted in a strong son preference and a large bride shortage. India will need more than girl friendly schemes to change track.
- ◆ The next concern is ageing. Southern states will face problem of ageing in future. Having largely redeemed their demographic dividend, the cohort of the elderly will start outstripping the working age population.
- ◆ Further, the freeze on the state-wise allocation of seats in Parliament until 2026 was extended through the Constitutional (84th Amendment) Act, 2002, to serve “as a motivational measure to pursue population stabilisation” — a goal which has not been achieved. In

the absence of further extension, it will be politically destabilising.

Needed Steps

- ◆ Promoting Male Sterilisation: National and state policies emphasis male vasectomy. But no other country in the world uses female sterilisation as excessively as India. After the 2014 Bilaspur outrage, when more than four-score sterilisations were conducted in less than six hours and several women died, one expected that states would go slow on compulsory female sterilisation. But surprisingly, even Kerala with all its progress still relies on female sterilisation (above 88 per cent) as the predominant modern method of contraception.
- ◆ Proper Implementation of Injectable Rights: Indonesia and Bangladesh introduced injectables(using contraceptive injections) right from the late 1980s but India only did so in 2016. Executed properly, one jab renders protection from pregnancy for three months. This method needs greater impetus given the helplessness of women who carry the burden of unwanted pregnancies.
- ◆ Incentivise Later Marriages and child births : Studies reflects that women who have been married later in the age are more equipped with knowledge of conceiving child than early marriages even as early as 18 years old. Moreover, it also makes it safer for both infant and maternal health, which significantly reduces mortality rates.

- ◆ Make Contraception Easy for Women: In a society like India, women are often shy about talking about such topics and their reach to contraception is almost negligible. With religion as Muslims situation even becomes worse. Its prevalence is more in the rural areas. In such cases it is needed that health workers, rural and health services, awareness programmes are more relevant in this area.
- ◆ Promote Women’s Labour Force Participation: Women with more economical freedom are tend to take better personal decisions. It will be effective in rural aspects more, which can easily enhance reach and awareness.

Conclusion

- ◆ In nutshell, three things are needed for population stabilisation - incentivise later marriages and child births; make contraception easy for women and promote women’s labour force participation. The population momentum, if managed properly in the Hindi belt, will remain India’s biggest asset until 2055. By 2040, India will be the undisputed king of human capital.



General Studies Paper- I

Topic:

- Role of women and women's organizations, Population and associated issues, Poverty and developmental issues, Urbanization, their problems and their remedies.

Q. “The National Population Policy 2000 affirmed a commitment to achieve replacement levels by 2010. But the goal has not been achieved even after a decade”. Explain.

03

GNCTD (Amendment) Act, 2021 : An Introduction

Why in News?

- ◆ The Parliament has passed the "Government of National Capital Territory of Delhi (Amendment) Bill, 2021" in Lok Sabha. It has revived the dispute on the distribution of powers between the elected government and the Lieutenant Governor (L-G).

Key Provisions of the Bill

- ◆ In the "statement of objects and reasons" section, the Centre claims that the amendment Bill seeks to give effect to the Supreme Court's interpretation and that it "further defines" the responsibilities of the elected government and the L-G in line with the Constitutional scheme.
- ◆ In section 44 of the principal Act dealing with powers to make rules for conduct of business, in sub-section (2) - which states that as otherwise provided in this Act, all executive action of the L-G whether taken on the advice of his Ministers or otherwise shall be expressed to be taken in the name of the L-G.

- ◆ Among the major proposed amendments, one makes it explicitly clear that the term "government" in any law made by the Legislative Assembly shall mean the L-G.
- ◆ This gives effect to former L-G Najeeb Jung's 2015 assertion that "Government means the L-G of the NCT of Delhi appointed by the President under Article 239 and designated as such under Article 239 AA of the Constitution".
- ◆ The Bill adds that the L-G's opinion shall be obtained before the government takes any executive action based on decisions taken by the Cabinet or any individual minister.

Purpose of 1991 Act

- ◆ Delhi's current status as a Union Territory with a legislative assembly is an outcome of the 69th Amendment Act through which Articles 239AA and 239BB were introduced in the Constitution.
- ◆ The Government of National Capital Territory of Delhi Act, 1991 (GNCTD Act) was passed simultaneously

to supplement the constitutional provisions relating to the Assembly and the Council of Ministers in the national capital.

- ◆ For all practical purposes, the GNCTD Act, 1991 outlines the powers of the Assembly, the discretionary powers enjoyed by the L-G, and the duties of the Chief Minister with respect to the need to furnish information to the L-G.

Bone of Contention

- ◆ Due to the co-existence of Article 239 and 239AA, there is a jurisdictional conflict between the government of NCT and the Union Government and its representative, the L-G.
- ◆ According to the Union government, New Delhi being a Union Territory Article 239 empowers the L-G to act independently of his Council of Ministers.
- ◆ However, the state government of Delhi held that the Article 239AA of the Constitution bestows special status to Delhi of having its own legislatively elected government.
- ◆ This creates a tussle around the administrative powers of the L-G and state government of NCT of Delhi

Centre's Argument

- ◆ The Ministry of Home Affairs said that there is no structural mechanism in the GNCTD Act, 1991 for effective and time-bound implementation of Section 44.

Supreme Court's Verdict of 2018

- In its 2018 verdict, the five-judge Bench had held that the L-G's concurrence is not required on issues other than police, public order and land. It had added that decisions of the Council of Ministers will, however, have to be communicated to the L-G.
 - The L-G was bound by the aid and advice of the council of ministers.
 - It had also pointed out that the elected government must keep in mind that Delhi is not a state.

Academike Explainer



Government of NCT of Delhi (Amendment) Act, 2021

There is also no clarity as to what proposals or matters are required to be submitted to the L-G before issuing order.

Proposed Impact

- ◆ Encouraged by the Supreme Court verdict, the elected government had stopped sending files on executive matters to the L-G before the implementation of any decision. It has been keeping the L-G away of all administrative developments, but not necessarily before implementing or executing any decision.
- ◆ But the amendment, if cleared, will force the elected government to take the L-G's advice before taking any action on any cabinet decision.
- ◆ The Bill seeks to add a provision in the original GNCTD Act, 1991, barring the Assembly or its committees from making rules to take up matters concerning day-to-day administration, or to

conduct inquiries in relation to administrative decisions. This assumes significance as the 70-member Assembly, where the AAP has as many as 62 MLAs, has multiple committees examining matters ranging from riots to environment.

- ◆ Further, the amendments will have far-reaching implications. By making it mandatory for the elected government to route all its files through the L-G, the amendments will essentially take away the government's autonomy and the dream for full statehood for the state.

Powers of L-G

- ◆ The L-G does have the power to refer any matter, over which there is a disagreement with the elected government, to the President under Article 239AA(4).
- ◆ Elected government cannot use the Supreme Court verdict to keep the

L-G in the dark about its decisions as that would prevent him from taking informed decisions on whether to invoke Article 239AA(4) or not.

- ◆ But the SC had also categorically pointed out that the L-G "should not act in a mechanical manner without due application of mind so as to refer every decision of the Council of Ministers to the President".

Way Forward

- ◆ The 'Union Territory' concept is one of the many ways in which India regulates relations between the Centre and its units. It should not be used to subvert the basis of electoral democracy.
- ◆ Therefore, for the sake of adhering to the principle of representative democracy and cooperative federalism, it is required that both the constitutional offices should function in harmony within the Constitutional parameters. 📌📌📌

General Studies Paper- II

Topic:

- Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.

Q. Delhi in recent time has been the center of power contention for Union and State. While explaining the present scenario and highlighting issues; examine the issue with constitutional relevancy.

04

Investing in Public Health : Core of Present

Why in News?

- ◆ Today, public health in India is at the crossroads. This fact is widely recognized by all stakeholders including those dealing with policy- as well as lawmakers. The worst pandemic in a hundred years has demonstrated the importance of healthcare and public health in times of a health crisis. With the urgent need to improve Health sector, a focus on why investing in Public Health is core of present.

Present Condition of Public Health and Healthcare

- ◆ Role of Private Sector: A private health sector account for 70% of healthcare services in India. It is playing only a supporting role and referring the patients to public hospitals for treatment of any cases relating to COVID-19.
- ◆ Limited Scope: Primary health care model in the country is limited in scope. Despite there is a well-functioning public primary health centre, Maternal and Infant services are focused. As only services related to pregnancy care, weak childcare and certain services related to national health programmes are provided.
- ◆ Lack of Skills: Lack of proper training, poor health management skills and adequate supervision for health workers delays the goals for the health sector.
- ◆ Weak Expenditure: Expenditure on public health funding has been consistently low in India

(approximately 1.3% of GDP). As per OECD, India's total out-of-pocket expenditure is around 2.3 % of GDP.

- ◆ Tough Consequences: Due to this, it is challenging to tackle Non-communicable Diseases, which is all about prevention and early detection. It diminishes preparedness and effective management for new and emerging threats such as pandemic like Covid-19.

Impact of COVID-19

- ◆ COVID-19 has triggered an introspection of India's healthcare system.
- ◆ For COVID19, computerised medical records informed us about how many were tested for SARSCoV2 infection — and among them, how many were positive, hospitalized, survived or died. All statistics are available in the public domain. But the numbers cover only a fraction of the total.
- ◆ There are no pharmacological preventive interventions — face masks, hand hygiene, physical distancing — and pharmacological prevention by vaccination. But without proper Health awareness in mass, it cannot be implemented; which was visible even in reality.
- ◆ The headlines of the tragic loss of lives, the exponential increase in cases, economic morass and social disruptions have emerged a deeper subtext on how the healthcare sector is viewed and treated.

- ◆ The pandemic has raised reports on longstanding problem of healthcare workers protesting the shortage of equipment, patients charging doctors and hospitals for profiteering, policy makers issuing edicts against providers and reported cases of hoarding of essential medicines.
- ◆ The growing lack of trust between patients and their doctors and providers and the wider mistrust between policy makers and the industry found fresh ground during the pandemic.

Challenges

- ◆ Lack of Data: Disease control is the deliberate, intervention based and quantified reduction of disease burden. It has to be data-driven. Data are required on baseline disease burden and real-time monitoring to track the control trajectory of all the highly prevalent infectious diseases. Reliable data must be collected from all sources including every healthcare provider, for monitoring disease burden by diagnosis and outcomes; for this exercise, the total population is the denominator.
- ◆ Lack of Unified Authority: No single authority is responsible for public health that is legally empowered to issue guidelines and enforce compliance of the health standards.
- ◆ Lack of Health Surveillance system: Without a public health surveillance system. The sero surveys on random samples, an attempt to

derive the totality of infections, reported widely disparate figure and failed to give us a reasonably reliable picture. Post vaccination surveillance, vital for assessing vaccine efficacy and safety, is not being conducted, again a lacuna in public health.

- ♦ Lack of Awareness in Public: An authentic health education regarding vaccination is conspicuously lacking, leading to considerable vaccine hesitancy among even healthcare staff.

Steps to Improve

- ♦ Public Awareness: Timely and comprehensive public education with authoritative and authentic information communicated effective to the public for self-motivated behaviour modification. A need to ensure people eat right, sleep right, maintain good hygiene, exercise, and adopt a healthy lifestyle that necessitates concerted interventions at various levels of the system.
- ♦ Promote Preventive Care: To stop the diseases from entering into the population, use of health and wellness centres can be effective. These HWCs will act as the pillar of preventive care and 'gateway' for access to secondary and tertiary health services.
- ♦ Improving Data Collection:- Our health management does not have a way of prospectively collecting data on all diseases and deaths by

diagnosis. That is precisely the task of public health.

- ♦ Addressing Social and Environmental Determinants: COVID19 has strong social determinants of infection transmission —overcrowding, lack of cough/sneeze etiquette, and urban-rural divide in health awareness and education. These factors are common for influenza and TB too. Typhoid, cholera, leptospirosis, scrub typhus, malaria, rabies, etc. have environmental determinants. Public health addresses both social and environmental determinants and could control these diseases.
- ♦ Importance of Health Personnel': Public health personnel have jurisdiction over people in their homes and workplaces, food and water distribution chains, and over ecosystems — ranging from densities of arthropod vectors, rodent and canine populations. They can provide effective services to locals without high finances if they are trained properly.
- ♦ Creation of Nodal Agency: There is need to create a designated and autonomous nodal agency with the required capacities and linkages to perform the functions of disease surveillance, information gathering on the health impact of policies of key non-health departments, maintenance of national health statistics, enforcement of public health regulations, and

dissemination of information to the public.

- ♦ Increased share in GDP: Public funding on health should be increased to at least 2.5% of GDP as envisaged in the National Health Policy, 2017.

Conclusion

- ♦ We should not consider healthcare and public health as an alternative responsibility to follow. Investment in public health will result in health, wealth and prosperity. It will improve economic output. Currently our healthcare institutions are cluttered with too many infectious diseases that are amenable to control if only we had public health. Imagine how much wealth is going down the drain for want of public health. If only we can fulfill our basic urgencies, all of it can be used for better development opportunities. 📌📌📌

General Studies Paper- II

Topic:

- Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Topic:

- Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Q. The Covid pandemic has reflected the deep embedded loopholes in the public and healthcare services of India. Suggest some measures and explain the reasons of these gaps.

05

E-Commerce Marketplaces : Possible Enablers for MSMEs

Context

- ◆ E-commerce marketplaces are today the best possible enablers for Micro, Small and Medium Enterprises (MSMEs) to be sustainable and effective.

Introduction

- ◆ The Micro Small and Medium Enterprises (MSMEs) sector is a major contributor to the socio-economic development of the country. In India, the sector has gained significant importance due to its contribution to Gross Domestic Product (GDP) of the country and exports. The sector has also contributed immensely with respect to entrepreneurship development especially in semi-urban and rural areas of India.
- ◆ According to the provisions of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006 the Micro, Small and Medium Enterprises (MSME) are classified in two classes i.e. Manufacturing Enterprises and Service Enterprises.
- ◆ India has approximately 6.3 crore MSMEs. The number of registered MSMEs grew 18.5% Y-o-Y to reach 25.13 lakh (2.5 million) units in 2020 from 21.21 lakh (2.1 million) units in 2019. The Indian MSMEs sector contributes about 29% towards the GDP through its national and international trade.
- ◆ According to data shared by the MSME Minister in the Rajya Sabha, the registered MSME is dominated by micro enterprises at 22.06 lakh (2.2 million) units in 2020 from 18.70 lakh (1.8 million) units in 2019, while small enterprise units went up from 2.41 lakh (0.24 million) units to 2.95 lakh (0.29 million) units. Midsized businesses only increased from 9,403 units to 10,981 units during this period.

E-commerce and MSMEs

- ◆ A significant major contributor to the India growth story is going to be manufacturing. Manufacturing by small units, cottage units and MSMEs, if effectively facilitated, will be the game changer to accelerate economic growth, employment, income levels and enhance supply chain efficiencies. E-commerce marketplaces are today the best possible enablers for this transformation at minimal cost, innovation and investment.
- ◆ India has put a goal of inclusive development and enhancing livelihoods. The Prime Minister has given the slogan of “vocal for local” and spoken several times about his vision of Atmanirbhar Bharat. E-commerce can contribute significantly in achieving this vision. It allows for products even from hinterlands to get to the national market, thus, providing opportunities to artisans and small sellers from Tier-2/3 towns to sell online to customers beyond their local catchment.
- ◆ By investing in supply chains, the e-commerce sector provides opportunities for MSMEs to partner them in supply and delivery networks. Start-ups and young brands are also finding opportunities to build national brands and even going global. This leads to additional income generation through multiple livelihood opportunities and thus contributes to economic prosperity and inclusive growth. Many offline stores are also adopting e-commerce to leverage these opportunities and the traditional and modern retail models are moving towards more offline and online collaborations.

Challenges

- ◆ There are certain hurdles in building a robust e-commerce sector, which need to be removed.
 - ◆ First, address the roadblocks that the e-commerce sector suffers in terms of ease of doing business online. Sellers on e-commerce marketplaces do not get advantage of GST threshold exemption (of Rs 40 lakh) for intra-state supplies that offline sellers enjoy because they have to “compulsorily register” even though their turnover is low.
 - ◆ Second, the government would do well to simplify the “Principal Place of Business” (PPOB) requirement especially for online sellers by making it digital and not requiring physical presence to expand their reach outside their home state. Today, the sellers, as in offline, are required to have a physical PPOB which, given the nature of e-commerce, is not practical. Replace physical PPOB with Place of Communication. Eliminating the need for state specific physical PPOB requirement will facilitate sellers to get state-level GST with a single national place of business.
 - ◆ Third, provide MSMEs with handholding support to understand how e-commerce functions. The government can collaborate with e-commerce entities to leverage their expertise and scale to create special on-boarding programmes, hold series of awareness sessions, provide common but important services like imaging and cataloguing, etc. These can be provided by state governments.

- ◆ Equally important is to examine the existing schemes and benefits for MSMEs, which were formulated with an offline, physical market in mind, and tweak them to include the special needs to leverage online sales channels. For example, MSMEs could be given fiscal incentives to access markets and invest in digital marketing. The objective is to incentivise those who shift to the digital mode.
- ◆ Fourth, build infrastructure — both physical and digital infrastructure is important for digital transformation. The road and telecom network will facilitate not just access to the consumer but also enable the seller from remote areas to enter the larger national market as well as the export market. A robust logistic network and warehouse chains created by e-commerce platforms enable similar access and reach. The National Logistics Policy should focus on e-commerce sector needs.
- ◆ Fifth, dovetail the skilling policy and programmes with the requirements of the e-commerce sector to meet future demand of the sector.
- ◆ Sixth, take specific steps to increase exports via e-commerce. Identify products that have potential for the export market, connect e-commerce with export-oriented manufacturing clusters, encourage tie-ups with sector-specific export promotion councils, leverage existing SEZs to create e-commerce export zones. India Posts can play a significant role by creating e-commerce specific small

parcel solutions at competitive rates, building a parcel tracking system, and partnering with foreign post offices to enable customs clearances.

Government Initiatives

- ◆ The Budget 2021-22 has doubled the allocation to the MSME sector to INR 15,700 crores (vs. INR 7,572 crores allocation in Budget 2020-21). In addition to the increased allocation, the Budget has also focused on promoting domestic manufacturing that benefits the MSME sector.
- ◆ Increased thrust on the Atmanirbhar Bharat program, higher duty on mobile parts/ auto parts, exemption of duty on steel scrap up to 31 March 2022, reduction in customs duty on long steel products, rationalisation of duties on import of duty-free items as an incentive to exporters in areas of garments/ leather/ handicrafts, relief to copper recyclers through duty reduction on copper scrap etc. are also incentives to promote the domestic manufacturing industry and ensuring import substitution.
- ◆ Also, customs duty on finished synthetic gemstones has been raised to encourage their domestic processing. These measures will pave the way for higher role, growth, and employment of MSMEs in India. The Budget also provides for the introduction of a special framework for debt resolution in respect of MSMEs.

Way Forward

- ◆ There is an urgent need to create a consolidated policy framework for e-commerce exports. Policies like the upcoming Foreign Trade Policy need to be fully leveraged. In order to give Indian e-commerce exporters that competitive advantage they need in order to succeed in global markets, specific policy provisions that provide incentives for e-commerce exports, create more awareness and enable end to end digitisation for e-commerce exports are critical. The Foreign Trade Policy should identify these areas and include e-commerce export specific provisions in the revised policy that comes into effect in April this year.
- ◆ For MSMEs to be sustainable and effective, the need of the hour is not just better automation in the production process for greater efficiencies on the input side but also more channels for accessing greater markets and opportunities to become a part of the national and global supply chains. 📡📡📡

General Studies Paper- III

Topic:

- Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Q. E-commerce marketplaces are today the best possible enablers for Micro, Small and Medium Enterprises (MSMEs) to be sustainable and effective. Do you agree? Justify your answer with suitable examples.

06

Artificial Intelligence and Ethical Challenges

Why in News?

- ◆ The Indo-US Science and Technology Forum have launched the US India Artificial Intelligence (AI) Initiative on March 17 to foster the science and technology relationship between the two countries.
- ◆ It could contribute more than \$15 trillion to the world economy by 2030, adding 14% to global gross domestic product (GDP). A study published in Nature reviewing the impact of AI on the Sustainable Development Goals (SDGs) finds that AI may act as an enabler on 134 — or 79% — of all SDG targets.

What is Artificial Intelligence?

- ◆ Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.
- ◆ AI is often misunderstood for machine learning. AI is a broader concept with a bunch of technologies that include machine learning and other technologies like natural language processing, inference algorithms, neuron networks etc.

Growth of AI in Our Life

- ◆ NITI Aayog has estimated that adopting AI means a 15% boost for the gross value added (GVA) for the economy by 2035. AI has multiple benefits as:
- ◆ Healthcare Sector: Machine learning is being used for faster,

cheaper and more accurate diagnosis and thus improving patient outcomes and reducing costs.

- ◆ Business Sector: To take care of highly repetitive tasks Robotic process automation is applied which perform faster and effortlessly than humans. As it is embedded in the recommendations we get on our favourite streaming or shopping site.
- ◆ Further, machine learning algorithms are being integrated into analytics and CRM platforms to provide better customer service. Chatbots are being used into the websites to provide immediate service to customers. Automation of job positions has also become a talking point among academics and IT consultancies.
- ◆ Education Sector: AI can make some of the educational processes automated such as grading, rewarding marks etc. therefore giving educators more time. Further, it can assess students and adapt to their needs, helping them work at their own pace. AI may change where and how students learn, perhaps even replacing some teachers.
- ◆ Financial Sector: It can be applied to the personal finance applications and could collect personal data and provide financial advice.
- ◆ Speech Recognition: There are intelligent systems that are capable of hearing and grasping the language in terms of sentences and their meanings while human talks to it.
- ◆ Cyber Security: In the 20th conference on e-governance in

India it was discussed that AI can provide more teeth to cyber security and must be explored.

- ◆ Weather Forecast: Neural Network is used for predicting weather condition. Previous data are fed to a neural network which learns the pattern & uses that knowledge to predict weather pattern.
- ◆ Manufacturing sector: Robots are being used for manufacturing since a long time now, however, more advanced exponential technologies have emerged such as additive manufacturing (3D Printing) which with the help of AI can revolutionize the entire manufacturing supply chain ecosystem
- ◆ Agriculture Sector: AI can be utilised to predict advisories for sowing, pest control and input control, enable increased income and giving stability for the agricultural community.

Ethical Challenges

- ◆ Digital Exclusion/Unemployment: AI could compound digital exclusion. Robotics and AI companies are building intelligent machines that perform tasks typically carried out by low-income workers: selfservice kiosks to replace cashiers, fruitpicking robots to replace field workers. the day is not far when many desk jobs will also be edged out by AI, such as accountants, financial traders and middle managers.
- ◆ Discrimination using AI: We shouldn't forget that AI systems are created by humans, who can be biased and judgemental. It can lead AI facial recognition and surveillance technology to

discriminate against people of color and minorities.

- ◆ Diplomacy Issues: Investment is likely to shift to countries where AI related work is already established. Gaps in investment is widening among and within countries.
- ◆ Privacy Concerns: AI also presents serious data privacy concerns. The algorithm's never ending quest for data has led to our digital footprints being harvested and sold without our knowledge or informed consent.
- ◆ We are constantly being profiled in service of customisation, putting us into echo chambers of likemindedness, diminishing exposure to varied viewpoints and eroding common ground.
- ◆ Mind-Controlling Tech : AI can nudge our behaviour without our noticing. Our level of addiction to our devices, the inability to resist looking at our phones, and the chilling case of Cambridge Analytica — in which such algorithms and big data were used to alter voting decisions — should serve as a potent warning of the individual and societal concerns resulting from current AI business models.
- ◆ Industrial Monopoly: Big Tech's big four — Alphabet/ Google, Amazon, Apple and Facebook — are worth a staggering \$5 trillion, more than the GDPs of just about every nation on earth. In 2020, when the world was reeling from the impact of the COVID19 pandemic, they added more than \$2 trillion to their value. It can lead to serious issues for any economy and even security of nations not just individuals alone.

What to do?

- ◆ AI Industries are not alone in developing and deploying AI; governments has role in it. Proper Scrutiny with strong consensus shall be used before deploying any technology.
- ◆ A "whole of society" approach to AI governance will enable us to develop broad-based ethical principles, cultures, and codes of conduct, to ensure the needed harm-mitigating measures, reviews and audits during design, development and deployment phases, and to inculcate the transparency, accountability, inclusion and societal trust for AI to flourish and bring about the extraordinary breakthroughs it promises.
- ◆ A whole world approach is better alternative to any method. The UN Secretary General's Roadmap on Digital Cooperation is a good starting point: it lays out the need for multistakeholder efforts on global cooperation so AI is used in a manner that is "trustworthy, human rights based, safe and sustainable, and promotes peace".
- ◆ Agreeing on common guiding principles is first step. Many countries, including India, are well known of the opportunities and the risks, and are striving to strike the right balance between AI promotion and AI governance — both for the greater public good. NITI Aayog's Responsible AI for All strategy, is a case in point. It recognised that our digital future cannot be optimised for good without multistakeholder governance structures.

Way Forward

- ◆ Automation, big data and algorithms will continue to sweep into new corners of our lives until we no longer remember how things were "before". Just as electricity allowed us to tame time, enabling us to radically alter virtually every aspect of existence, AI can leapfrog us toward eradicating hunger, poverty and disease — opening up new and hitherto unimaginable pathways for climate change mitigation, education and scientific discovery.
- ◆ AI has the potential to improve billions of lives, it can also replicate and exacerbate existing problems, and create new ones. But, the goal must be to ensure that this can help closing the already existing gaps than widening them to create a further new complication. Without establishing any guard rails, it will be misused only just as all the technologies have been by now.



General Studies Paper- III

Topic

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

Topic

- Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Q. "AI is a road where principles meet reality that the ethical issues and conundrums arise in practice". Justify the statement.

07

Single-use Plastic : Hidden Pandemic

Why in News?

- Plastics have been deployed in great quantities as a shield against COVID. But little attention has been paid to where the increased plastic waste will end up. The sadness is we were on the cusp of real victories against plastic pollution just as the coronavirus pandemic began. But all the progress is lost.

About Single-use Plastic

- Single-use plastics, often also referred to as disposable plastics, are commonly used for plastic packaging and include items intended to be used only once before they are thrown away or recycled. These include, among other items, grocery bags, food packaging, bottles, straws, containers, cups and cutlery.
- Polyamides Polycarbonate Polyester Polyethylene Polystyrene etc are its some common examples.

Commitment to Eliminate Single Use Plastic

- The Plastic Waste Management Act, 2016 was passed by Parliament with the ultimate aim of reducing plastic waste generation in the country and eliminating single-use plastic completely by 2022.
- In 2019, India committed to completely phase out single-use plastics by 2022. The commitment called for better arrangements to collect, store, and recycle single-use plastic.
- The United Nations Environment Programme (UNEP), with the support of Norway and Japan,

undertook a multiyear assessment of how plastic finds its way into riverways, and ultimately the ocean, through projects like 'CounterMEASURE'.

- National Geographic's "Sea to Source: Ganges" Expedition brought together four countries, including India and Bangladesh, to holistically study plastic pollution within the Ganges river basin.

Impact of Pandemic on the Plastic Free Goal journey

- The pandemic halted and, in some cases, reversed much of this progress. Plastics, especially single-use plastics, became more ubiquitous. Masks, sanitiser bottles, personal protective equipment, food packaging, water bottles became more common.
- All the resources were mobilized to the Pandemic, leaving these goals unattended.
- This plastic will disintegrate into tiny particles of less than five millimetres — known as microplastics — and move through water bodies and farm soil to enter the food we eat and the air we breathe.

Role of Plastic

- Only 9 per cent of all plastic ever produced has been recycled, while 79 per cent of all plastic produced can be found in the world's landfills and in our air, water, soil, and other natural systems.
- Its central role in durable goods, medicine and food safety means that it is not practical to get rid of entirely.

- We need an approach that includes reducing the manufacture of new fossil fuel-based plastics, improving waste collection and disposal, and developing and using alternatives.

Minimization of Single-use Plastic

- Improving Waste Collection services: We should ensure that waste collection operates at the same pace as waste generation. Litter is a large part of the plastic pollution ending up in Indian rivers. Improved planning and frequency of waste disposal operations can alleviate this.
- Promoting Recycling: Making recycling more active and lucrative, the biggest issue is after waste is collected, what to do with it is still unknown. It is most likely being dumped at landfills or to the incinerators.
- Importance of Waste Segregation: We must be able to segregate waste and used plastic early in the waste-to-value cycle so that the plastic remains suitable for treatment and recycling. Some source segregation efforts became more normalised during the pandemic and this is a trend that should continue. It will make recycling much easier and more economically viable.
- Adopting Environmental Friendly methods: We need to encourage environmentally-friendly alternatives to single-use plastics where they exist and develop alternatives where they do not exist. Business models that avoid plastic waste through alternative product delivery systems, promote

circularity, and use plastic waste should be encouraged.

- ◆ Cohesive Approach: plastic pollution is a truly society-wide problem, it is important for government, businesses, and civil society to coordinate to find solutions.
- ◆ Promoting Awareness: Use of biodegradable goods, textile clothes over nylon wears, buying more bulk food than packaged good, use of paper bags often, having waste segregation at household level, use of decomposition etc are some methods that can be adopted by teaching general public.
- ◆ Increasing Duties on Plastic Products: Providing market alternatives to have cheaper biodegradable objects than plastic ones would automatically make people avoid plastic. Plastic is used on massive levels because it is much cheaper. Government can put bans, fines or increase taxes and duties on plastic products, which will automatically decrease its quantity.

Examples

- ◆ Using Papers/ Textile Bags than the plastic bags. It will not only save plastic waste and environment but also promote entrepreneurship in Environmental models and most importantly provide employment to backward sectors as Jute Farmers.

- ◆ Incentivising waste collection and segregation by monetarily benefits, or providing benefits in governmental schemes. As Local Safai workers can be provided benefits for the amount of waste they collect other than being their duty. Moreover, poor households can be provided scholarship benefits for their children, or subsidies in other services as farm, fuel as compensation to contribution of their Environmental duties.
- ◆ Governmental approach in recycling sector can be helpful as similar to done in Rural Entrepreneurship and Cyber fields. As by promoting Investment in Recycling, attracting Industrial segments to the Recycling etc.
- ◆ Some countries like the UK are considering a ban on disposable items such as takeaway coffee cups, which can be easily replaced with more durable solutions (e.g. refillable cups). Meanwhile, UK drinks and packaging trade associations have fiercely lobbied governments to stop them from increasing industry's responsibility for the collection and recycling of packaging waste. This can be applied in India also.
- ◆ Public water refill stations are key to decreasing single use plastic water bottle consumption. Cities and their water agencies benefit

from installing water refill stations which offer a filling function in addition to a drinking fountain.

Way Forward

- ◆ Legislative action to restrict single use plastic distribution is an effective way to decrease plastic pollution. In addition to visible plastic pollution, microplastic pollution to waterways and the ocean is a growing concern.
- ◆ UNEP and its partners are working with the Indian government towards these goals, drawing in researchers, enterprises and community groups to address plastic pollution.
- ◆ It is needed that a better monitoring system is also put at place with the common goals to achieve these Environmental goals, because after the fight with COVID. We will be again caught out with the same issues. Better to take steps now before it's too late.



General Studies Paper- I

Topic:

- Role of women and women's organizations, Population and associated issues, Poverty and developmental issues, Urbanization, their problems and their remedies.

Q. The fight against Pandemic has delayed India's commitment for free single use plastic nation. Considering the present scenarios, describe the need of government to emphasis on this environmental goal. Illustrate with some steps and examples.

7

IMPORTANT BRAIN BOOSTERS

01

Space Hurricane

1. Why in News?

- For the first time, astronomers have detected a powerful, 600-mile-wide (1,000 kilometers) hurricane of plasma in Earth's upper atmosphere — a phenomenon they are calling a "space hurricane."

2. What is Space Hurricane?

- A space hurricane is a huge, funnel-like, spiral geomagnetic storm that occurs above the polar ionosphere of Earth, during extremely quiet conditions.
- They are related to the aurora borealis phenomenon, as the electron precipitation from the storm's funnel produces gigantic, cyclone-shaped auroras.
- Scientists believe that they occur in the polar regions of planets with magnetic fields.
- Space hurricanes are formed by plasma interacting with magnetic fields and draw energy down from the flow of the Solar wind.



3. What is Plasma?

- The universe is made of up of space plasma. Plasma is the word given to the fourth state of matter (solid, liquid, gas, plasma).
- Plasma is a gas that is so hot that some or all its constituent atoms are split up into electrons and ions, which can move independently of each other.

7. Significance

- These features indicate that the space hurricane leads to large and rapid deposition of energy and flux into the polar ionosphere during an otherwise extremely quiet geomagnetic condition, suggesting that current geomagnetic activity indicators do not properly represent the dramatic activity within space hurricanes, which are located further poleward than geomagnetic index observatories.
- Scientists routinely monitor space weather because radiation from particles from the sun can wreak havoc on satellites in orbit and can occasionally disrupt infrastructure on the ground, such as surges in power lines.
 - ☛ Since the observed space hurricane occurred over the North Pole, it's not thought that it would pose many dangers to people at lower latitudes, but there are implications for communications and navigation systems.
- The space hurricane will lead to have better understanding of important space weather effects like increased satellite drag, disturbances in High Frequency (HF) radio communications, and increased errors in over-the-horizon radar location, satellite navigation and communication systems.

4. What's Unique about It?

- Large, swirling storms called hurricanes hit frequently in the Earth's low atmosphere, but they were not known to occur in the upper atmosphere.
- Scientists have for the first time observed a space hurricane in Earth's upper atmosphere.
- The spiral-armed space hurricane swirled roughly 125 miles over the North Pole, churning in place for almost eight hours.

5. Detection

- Researchers has analysed the observations made by satellites in 2014 to reveal a long-lasting hurricane, resembling those in the lower atmosphere, in the polar ionosphere and magnetosphere with surprisingly large energy and momentum deposition despite otherwise extremely quiet geomagnetic conditions.
- The analysis allowed a 3D image to be created of the 1,000km-wide swirling mass of plasma several hundred kilometres above the North Pole, raining electrons instead of water.

6. Formation

- Space hurricanes, like other space weather events, are caused by streams of plasma unleashed from the sun in what's known as the solar wind.
- As these clouds of charged particles hurl through space, they can fuel magnetic storms and trigger stunning displays of the northern or southern lights.

02

Mapping of Genomes in Indian Ocean

1. Why in News?

- The Council of Scientific and Industrial Research-National Institute of Oceanography (CSIR-NIO), Goa, has initiated a project for mapping the genetic diversity of organisms and the effect of micronutrients and trace metals on them in the Indian Ocean supported by the CSIR, under one of its flagship projects TraceBioMe.



2. About the Project

- A 90-day long expedition onboard research vessel RV Sindhu Sadhana with 30 scientists took off from Visakhapatnam and will be completed in two-legs till the end of May, covering over 9,000 nautical miles, and ending in Goa.
- The researchers will collect samples from various stretches of the ocean at an average depth of about 5 km.
- Like gene mapping is carried out on blood samples collected from humans, the scientists will map these in the bacteria, microbes found in the ocean.
- The mapping of the Deoxyribonucleic acid (DNA) and Ribonucleic acid (RNA) will show the nutrients present in them, and also those lacking in different parts of the ocean.

3. Objective of Study

- To understand the biochemistry and the response of the ocean to climate change, nutrient stress and increasing pollution.
- Trace metals like cadmium or copper are supplied to oceans via continental run-offs, atmospheric deposition, hydrothermal activities and continental shelf interaction. They are essential for ocean productivity.
- It is important to understand the interactions of trace metals with marine biota for having a holistic understanding about nutrient cycling and productivity of the oceans.
- Apart from their reactions on marine life, isotopic forms of trace metals can be utilised to track the movement of water masses responsible for ocean circulation and as tools to study the biological, geochemical and ecosystem processes and food web analyses.
- It is expected to generate new information about trace metals from underexplored regions of the Indian Ocean.

4. What is Genome?

- It is an entire set of DNA (or RNA in RNA viruses) of an organism. In other words, genome is an organism's complete set of genetic instructions.
- Each genome consists of the information required to build that organism and allow it to grow and develop.

5. Significance

- It will help scientists understand the internal working of the ecosystem of the Indian Ocean.
- It will enable scientists to identify the factors controlling the changes in RNA, DNA in the oceans, and various stressors impacting them.
- The ocean has several micronutrients like nitrates, sulphates and silicates, minerals like iron ore and zinc, and trace metals like cadmium or copper.
- The genome mapping will show the presence of which these microbes have adapted to, in addition to their reaction to atmospheric carbon dioxide. This will help in identifying which part of the ocean has a greater concentration of which mineral or element.
- These will be used as tracers to tackle the causative factors for excess or lack of a certain mineral or element and suggest possible solutions for their mitigation.
- It will develop the large pool of RNA, DNA library of the oceans and will be utilised for using the Indian Ocean to human benefit in the future.

6. About National Institute of Oceanography

- It was established on 1 January, 1966 following the International Indian Ocean Expedition (IIOE) in the 1960s.
- The main focus of research is to observe and understand the special oceanographic characteristics of the Indian Ocean.

03 Place of Worship Law

1. Why in News?

- The Supreme Court (SC) has asked the Centre to respond to a plea challenging the Places of Worship (Special Provisions) Act, 1991. In agreeing to examine the law, the court has opened the doors for litigation in various places of worship across the country including Mathura and Varanasi.



2. Background

- Passed in 1991, the law seeks to maintain the “religious character” of places of worship as it was in 1947 — except in the case of Ram Janmabhoomi-Babri Masjid dispute, which was already in court.
- The law was brought in at the peak of the Ram Mandir movement, exactly a year before the demolition of the Babri Masjid.
- The reasons given were that it was adopted to curb communal tension.

3. Key Provisions

- The clause declares the objective of the law describes it as an Act to prohibit conversion of any place of worship and to provide for the maintenance of the religious character of any place of worship as it existed on the 15th day of August, 1947.
- To maintain the religious character of a place of worship to be the same as it was on August 15, 1947 and that no person shall convert any place of worship of any religious denomination into one of a different denomination or section.
- It provides that All suits, appeals or other proceedings regarding converting the character of a place of worship, that were pending on August 15, 1947, will stand delayed when the Act commences and no fresh proceedings can be filed.
- However, legal proceedings can be initiated with respect to the conversion of the religious character of any place of worship after the commencement of the Act if the change of status took place after the cut-off date of August 15, 1947.

4. Exemptions

- Act not to apply to Ram Janma Bhumi/Babri Masjid;
- Any place of worship that is an ancient and historical monument or an archaeological site, or is covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958;
- A suit that has been finally settled or disposed of; and
- To sites where any dispute that has been settled by the parties or conversion of any place that took place by acquiescence before the Act commenced.

6. Views of SC

- SC manifests the secular values of the Constitution and strictly prohibits retrogression (conversion).
- SC said that, ‘In providing a guarantee for the preservation of the religious character of places of public worship as of the date of Independence.
- The norms of the act implement the Fundamental Duties under Article 51A and are hence positive mandates to every citizen as well.

5. Issue

- The petitioner has challenged the law on the ground that violates secularism.
- It is also argued that the cut-off date of August 15, 1947 is “arbitrary, irrational and retrospective” and various religious sects from approaching courts to “re-claim” their places of worship which were “invaded” and “encroached” upon by “fundamentalist barbaric invaders.
- Argument is given that the Centre has no power to legislate on “pilgrimages” or “burial grounds” which is under the state list.
- However, the government had said it could make use of its residuary power under Entry 97 of the Union List to enact this law. Entry 97 confers residuary powers to the Centre to legislate on subjects that are not enumerated in any of the three lists.

04

Energy Efficiency Enterprise (E3) Certificate Programme

1. Why in News?

- The Ministry of Power has launched "Energy Efficiency Enterprise (E3) Certifications Programme for the Brick Manufacturing Sector". It is aimed to tap huge energy efficiency potential in this sector.



2. About E3 Programme

- E3 Certification is an initiative to recognise burnt clay brick manufacturers who adopt energy-efficient manufacturing and encourage customers to source bricks from such E3 certified manufacturing units.
- The E3 Certificate will be awarded to those enterprises whose specific energy consumption will be 25% lower than the national baseline.
- The adoption of the E3 Certification is currently voluntary for the brick industry.
- The Bureau of Energy Efficiency (BEE) is responsible for providing certification about the E3 programme.
- The final scheme will be notified by way of formulating necessary regulations under the Energy Conservation Act, 2001.
- The Final scheme will carry provisions for E3 certificate application fees and in case of non-compliance, Penalties.

3. About BEE

- Bureau of Energy Efficiency (BEE) is a statutory body under the Ministry of Power which was setup in 2002 under the provisions of the Energy Conservation Act, 2001.
- The mission of the Bureau is to assist in developing policies and strategies with the primary objective of reducing energy intensity of the Indian economy.
- State Energy Efficiency Index, Perform Achieve and Trade (PAT) scheme, Standards & Labeling Programme, Energy Conservation Building Code, etc. are other important initiatives of BEE.

4. About Construction and Brick sector in India

- The construction sector contributes about 10% of India's GDP and is growing at the rate of 9% per annum.
- The Indian burnt clay brick industry is the second largest in the world after China.
- The brick sector contributes about 0.7% to the country's GDP, generate seasonal employment to over 1 crore workers, and is backbone of economic sectors such as transportation and construction.

5. Benefits

- This Brick industry consumes about 45-50 million tonnes of coal equivalent annually, amounting to 5-15% of the total energy consumption in the country.
- Energy saving of 7 Million Tonnes of oil equivalent (MTOE) per year and Carbon Monoxide savings of about 25 Million Tonnes by 2030 are estimated through adoption of E3 Certification by 7500 Bricks manufacturing units.
- Brick production demand is expected to multiply three to four times over the next 20 years, through E3 Certification program.
- It will lead to multiple benefits in terms of energy savings in the brick manufacturing process and improved quality of bricks resulting in cost savings.
- This will push towards phasing out inefficient technology in Brick production and enhance awareness and access of energy efficient bricks and technology.
- Such bricks will be useful in complying with the requirements of Energy Conservation Buildings Code (ECBC).

05

Border Dispute between Kenya and Somalia

1. Why in News?

- Amidst the instability in East Africa, Kenya has said that it will not take part in proceedings of the International Court of Justice (ICJ) over its maritime border dispute with neighbouring Somalia.



2. About Disputed Area

- The dispute between two countries is about the direction in which both countries' maritime boundary in the Indian Ocean should extend.
- According to Somalia, the sea border should be an extension of the same direction in which their land border runs as it approaches the Indian Ocean, i.e. towards the southeast.
- Kenya, on the other hand, argues that the territorial southeast border should take a 45 degree turn as it reaches the sea, and then run in a latitudinal direction, i.e. parallel to the equator.
- Such an arrangement would be advantageous for Kenya, whose coastline of 536 km is more than 6 times smaller than Somalia's (3,333 km).

3. Strategic Importance

- A decision favoring the Kenya would be advantageous for it, whose coastline of 536 km is more than 6 times smaller than Somalia's (3,333 km).
- The area is an oil- and gas-rich area in the Indian Ocean, as well as has significance for fishing communities, with wider region.
- The triangular area thus created by the dispute is around 1.6 lakh sq km large, and boasts of rich marine reserves.

7. About International Court of Justice

- ICJ was established in 1945 by the United Nations, situated at the Peace Palace in The Hague (Netherlands).
- It settles legal disputes between States and gives advisory opinions in accordance with international law, on legal questions referred to it by authorized UN organs and specialized agencies.
- Its judgments are final and binding on the parties to a case and without appeal.
- It has no jurisdiction to try individuals accused of war crimes or crimes against humanity. As it is not a criminal court, it does not have a prosecutor able to initiate proceedings.

4. Background

- After Somalia first brought the case in 2014, the United Nations (UN's) International Court of Justice (ICJ) was scheduled to begin the public hearing in The Hague.
- But before proceedings could begin, Kenya's government announced its intent to withdraw from the case, based on a 2009 argument and present its complaints to the UN Security Council, of which it is currently a nonpermanent member.
- Based on international maritime law, the court was widely expected to rule in Somalia's favour.
- These hearings never took place, as Kenya successfully applied to have them postponed thrice— the last one being in June 2020, when it cited difficulties due to the COVID-19 pandemic.

6. About Horn of Africa

- The Horn of is a peninsula in Eastern Africa and the easternmost projection of the African continent.
- It lies along the southern side of the Red Sea and extends hundreds of kilometers into the Gulf of Aden, Somali Sea and Guardafui Channel.
- The Horn of Africa consists of the countries of Djibouti, Eritrea, Ethiopia, and Somalia.

5. Impact

- Relations between Somalia and Kenya have sharply deteriorated.
- Somalia criticised Kenya in 2019, after the latter blocked the entry of two Somali legislators and a minister after they landed at Nairobi airport, and proceeded to deport them.
- Kenya accused Somalia of an "unwarranted attack" on its territory during a conflict between Somalia and regional forces. Somalia refuted the accusation.
- Despite it the two countries remain allies in their fight against Al Shabaab, an Islamist terror organisation that has launched several attacks in both countries over the past decade. And their fight against them has been weakened.
- It is expected that both countries soon reach out to a middle point, before this can seriously affect their security issues.

06

European Union: LGBTIQ Freedom Zone

1. Why in News?

- Through a resolution, the European Parliament has symbolically declared the entire 27-member bloc as an "LGBTIQ (lesbian, gay, bisexual, trans, intersex and queer) Freedom Zone".
- A majority of countries in the European Union (EU) (23/27) recognise same-sex unions, with 16 legally recognising same-sex marriage.



2. Background

- The move comes as a response against member state Poland's controversial move to create more than 100 "LGBTIQ ideology-free zones" around the country since 2019, and more generally against the backsliding of LGBTIQ rights in some EU countries, particularly in Poland and Hungary.

3. Situation of Poland and Hungary

- A majority of countries in the EU (23/27) recognise same-sex unions, with 16 legally recognising same-sex marriage. Poland is part of the small minority that does not acknowledge such relationships.
- Poland is among the countries that bar same-sex couples from adopting children together, although many such couples get around this rule by applying to adopt as single parents.
- Poland has now announced plans to close the loophole by introducing background checks on applicants.
- Hungary has also been pushing forward a conservative Catholic social agenda. In November 2020, the town of Nagykáta adopted a resolution banning the "dissemination and promotion of LGBTIQ propaganda".

4. Key Points of Resolution

- Now, LGBTIQ persons everywhere in the EU would enjoy the freedom to live and publicly show their sexual orientation and gender identity without fear of intolerance, discrimination or persecution, and authorities at all levels of governance across the EU.
- The law will protect and promote equality and the fundamental rights of all, including LGBTIQ persons.

6. LGBT Rights in India

- In 2018, Supreme Court ruled that consensual homosexual acts would no longer constitute a crime. It reversed Section 377 of the Indian Penal Code.
- The Parliament has passed the Transgender Persons (Protection of Rights) Act, 2019 but it is very problematic as it does not allow for self-determination of transgender status and provide no reservation status in education or employment.
- In the case of Navtej Singh Johar v. Union of India, the Supreme Court ruled that the Indian Constitution bans discrimination based on sexual orientation via the category of "sex".
- Similarly, in the case of National Legal Services Authority v. Union of India, the Supreme Court held that discrimination on the basis of gender identity is constitutionally prohibited.

5. About European Union

- The European Union (EU) is a political and economic union of 27 member states that are located primarily in Europe.
- The EU has developed an internal single market through a standardised system of laws that apply in all member states in matters, where members have agreed to act as one.
- 19 of these countries use EURO as their official currency. 8 EU members (Bulgaria, Croatia, Czech Republic, Denmark, Hungary, Poland, Romania, Sweden,) do not use the euro.
- The 7 important decision-making bodies of the European Union are listed as European Parliament, European Council, European Commission, Council of the European Union, Court of Justice of the European Union, European Central Bank and European Court of Auditors.

07

India's Arms Imports: SIPRI

1. Why in News?

- According to a recent report by Stockholm International Peace Research Institute (SIPRI) India's arms imports has decreased by 33% between 2011-2015 and 2016-2020.

2. Key Highlights

- The top five global arms exporters were the US, Russia, France, Germany and China in 2016-2020.
- Asia and Oceania was the largest importing region for major arms, receiving 42 per cent of global arms transfers in 2016-20.
- India, Australia, China, South Korea and Pakistan were the biggest importers in the region.
- Japan's arms imports increased by 124 per cent between 2011-15 and 2016-20. Although Taiwan's arms imports in 2016-20 were lower than in 2011-15, it placed several large arms procurement orders with the USA in 2019, including for combat aircraft.
- The United States remains the largest arms exporter, increasing its global share of arms exports from 32 to 37 per cent between 2011-15 and 2016-20. Russia is the second largest arms exporter.
- Arms imports by Pakistan between 2011-15 and 2016-20 decreased by 23%. China accounted for 61% of its imports in 2011-15 and for 74% in 2016-20.
- The biggest growth in arms imports was seen in the Middle East.
- SIPRI found Middle Eastern states imported 25 per cent more major arms in 2016-20 than they did in 2011-15.
- This reflected regional strategic competition among several states in the Gulf region. Saudi Arabia—the world's largest arms importer—increased its arms imports by 61 per cent.



3. India's Position

- India remains the second highest importer, only behind Saudi Arabia.
- The drop in Indian arms imports seems to have been mainly due to its complex procurement processes, combined with an attempt to reduce its dependence on Russian arms.
- The US was the second largest arms supplier to India in 2011-15 but in 2016-20 India's arms imports from the US were 46% lower than in the previous five-year period, making the US the fourth largest supplier in 2016-20.
- Russia was the largest arms supplier in both years. However, Russia's deliveries dropped by 53% between the two periods and its share of Indian arms imports fell from 70 to 49%.
- France and Israel were the second and third largest arms suppliers in 2016-20.
- India's arms imports from France increased by 709% while those from Israel rose by 82%.
- Based on its outstanding deliveries of combat aircraft, air defence systems, ships and submarines, India's arms imports are expected to increase over the coming five years.

4. Government's Efforts

- As part of efforts to boost defence imports and promote domestic manufacturing, the Defence Ministry had last year notified a list of 101 items on the negative import list. The second negative list with more items is expected to be issued later this year.
- Also, over 60 per cent of the capital expenditure, Rs 70,221 crore, for the armed forces has been allocated for domestically produced weapons and platforms this year.
- In addition, the Ministry has reserved a part of the capital budget for procurement from domestic industry.
- Government has also opened the way for 74 per cent Foreign Direct Investment (FDI) in defence production through automatic route.

7 MCQ's WITH EXPLANATORY ANSWERS

(Based on Brain Boosters)

01 Space Hurricane

1. Consider the following statements with respect of 'space hurricane':

1. A space hurricane is a huge, funnel-like, spiral geomagnetic storm that occurs above the polar ionosphere of Earth, during extremely quiet conditions.
2. They are related to the aurora borealis phenomenon, as the electron precipitation from the storm's funnel produces gigantic, cyclone-shaped auroras.

Which of the statement given above is/are correct?

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

Ans: (c)

Explanation: Both the statements are correct. For the first time, astronomers have detected a powerful, 600-mile-wide (1,000 kilometers) hurricane of plasma in Earth's upper atmosphere— a phenomenon they are calling a "space hurricane."

A space hurricane is a huge, funnel-like, spiral geomagnetic storm that occurs above the polar ionosphere of Earth, during extremely quiet conditions.

They are related to the aurora borealis phenomenon, as the electron precipitation from the storm's funnel produces gigantic, cyclone-shaped auroras.

02 Mapping of Genomes in Indian Ocean

2. Consider the following statements:

1. India and Australia has initiated a project for mapping the genetic diversity of organisms and in the Indian Ocean.
2. The project is aimed at understanding the biochemistry and the response of the ocean to climate change, nutrient stress and increasing pollution.

Which of the statements given above is/are correct?

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

Ans: (b)

Explanation: Statement 1 is incorrect. The Council of Scientific and Industrial Research-National Institute of Oceanography (CSIR-NIO), Goa, has initiated a project for mapping the genetic diversity of organisms and the effect of micronutrients and trace metals on them in the Indian Ocean supported by the CSIR, under one of its flagship projects TraceBioMe.

Statement 2 is correct. The first-of-its-kind research project in the country is aimed at understanding the biochemistry and the response of the ocean to climate change, nutrient stress and increasing pollution.



03 Place of Worship Law

3. Consider the following statements:

1. The Places of Worship (Special Provisions) Act, 1991 is also applicable to Ram Janma Bhumi/Babri Masjid.
2. The law was brought in at the peak of the Ram Mandir movement, exactly a year before the demolition of the Babri Masjid.

Which of the statements given above is/are correct?

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

Ans: (d)

Explanation: Both the statements are incorrect. Passed in 1991, the law seeks to maintain the "religious character" of places of worship as it was in 1947 — except in the case of Ram Janmabhoomi-Babri Masjid dispute, which was already in court. The law was brought in at the peak of the Ram Mandir movement, exactly a year before the demolition of the Babri Masjid.

Act not to apply to Ram Janma Bhumi/Babri Masjid; any place of worship that is an ancient and historical monument or an archaeological site, or is covered by the Ancient Monuments and Archaeological Sites and Remains Act, 1958; a suit that has been finally settled or disposed of; and to sites where any dispute that

has been settled by the parties or conversion of any place that took place by acquiescence before the Act commenced. <>>

04 Energy Efficiency Enterprise (E3) Certificate Programme

4. Consider the following statements:

1. The Ministry of Power and NITI Aayog has launched "Energy Efficiency Enterprise (E3) Certifications Programme for the Brick Manufacturing Sector".
2. The Bureau of Energy Efficiency (BEE) and NITI Aayog will be responsible for providing certification about the E3 programme.

Which of the statements given above is/are correct?

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

Ans: (d)

Explanation: Both the statements are incorrect. The Ministry of Power has launched "Energy Efficiency Enterprise (E3) Certifications Programme for the Brick Manufacturing Sector". It is aimed to tap huge energy efficiency potential in this sector. E3 Certification is an initiative to recognise burnt clay brick manufacturers who adopt energy-efficient manufacturing and encourage customers to source bricks from such E3 certified manufacturing units.

The Bureau of Energy Efficiency (BEE) is responsible for providing certification about the E3 programme. <>>

05 Border Dispute between Kenya and Somalia

5. Consider the following statements:

1. Both Somalia and Kenya are the part of Horn of Africa.
2. Both countries are engaged in the maritime border dispute in the Indian Ocean.

Which of the statements given above is/are correct?

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

Ans: (b)

Explanation: Statement 1 is incorrect. The Horn of Africa consists of the countries of Djibouti, Eritrea, Ethiopia, and Somalia.

Statement 2 is correct. The dispute between two countries is about the direction in which both countries' maritime boundary in the Indian Ocean should extend. According to Somalia, the sea border should be an extension of the same direction in which their land border runs as it approaches the Indian Ocean, i.e. towards the southeast.

Kenya, on the other hand, argues that the territorial southeast border should take a 45 degree turn as it reaches the sea, and then run in a latitudinal direction, i.e. parallel to the equator. <>>

06 European Union: LGBTIQ Freedom Zone

6. Consider the following statements:

1. Through a resolution, the European Parliament has symbolically declared the entire 27-member bloc as an "LGBTIQ Freedom Zone".
2. A majority of countries in the European Union (EU) (23/27) recognise same-sex unions, with 16 legally recognising same-sex marriage.

Which of the statements given above is/are correct?

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

Ans: (c)

Explanation:

Both the statements are correct. Through a resolution, the European Parliament has symbolically declared the entire 27-member bloc as an "LGBTIQ (lesbian, gay, bisexual, trans, intersex and queer) Freedom Zone".

A majority of countries in the European Union (EU) (23/27) recognise same-sex unions, with 16 legally recognising same-sex marriage. <>>

07 India's Arms Imports: SIPRI

7. Consider the following statements:

1. The top five global arms exporters were the US, Russia, France, Germany and China in 2016-2020.
2. India remains the second highest importer, only behind Saudi Arabia.

Which of the statements given above is/are correct?

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

Ans: (c)

Explanation: Both the statements are correct. The top five global arms exporters were the US, Russia, France, Germany and China in 2016-2020. According to a recent report by Stockholm International Peace Research Institute (SIPRI) India's arms imports has decreased by 33% between 2011-2015 and 2016-2020.

India remains the second highest importer, only behind Saudi Arabia. <>>

7 IMPORTANT NEWS

01

Jal Jeevan Mission and Uttar Pradesh Government

- ◆ United Nations Office for Project Services (UNOPS) has entered into a partnership with the Government of Denmark to support the Union Government's flagship programme, Jal Jeevan Mission in Uttar Pradesh on World Water day.

Key Highlights

- ◆ The purpose of partnership between the Government of Denmark and UNOPS is to provide strategic technical support to Jal Jeevan Mission.
- ◆ UNOPS shall be focussing on instituting scalable delivery models in focused 11 water-scare districts of Uttar Pradesh in Bundelkhand and Vindhya regions as per the priorities laid down in the Operational Guidelines of Jal Jeevan Mission.



- ◆ UNOPS will mobilize its resources in these districts especially in the area of community mobilization, capacity building, training, etc., which will help in achieving the goal of the mission to provide tap water connection to every household in a time-bound manner.

About Jal Jeevan Mission

- ◆ The Jal Jeevan Mission aims to

provide functional household tap connection to every rural household by 2024. Nearly 30 million tap water connections have been provided under this so far.

- ◆ This coincides with the United Nation's Sustainable Development Goal-6 (SDG 6) - Ensure Availability and Sustainable Management of Water and Sanitation for all. 🌐🌱🌊

02

Gram Ujala Scheme

- ◆ Union Minister of State (Independent Charge) for Ministry of Power and Ministry of New and Renewable Energy and Minister of State, Ministry of Skill Development and Entrepreneurship R K Singh

has launched the GRAM UJALA programme in Arrah, Bihar.

Key Highlights

- ◆ Under the programme, 7 watt and 12-Watt LED bulbs with 3 years warranty will be given to rural

consumers against submission of working Incandescent bulbs.

- ◆ The State-run EESL arm Convergence Energy Services Ltd (CESL) will distribute high quality LED bulbs, at an affordable cost of 10 rupees per bulb in rural areas.



- ♦ The Gram Ujala programme will be implemented in villages of the 5 districts only and consumers can exchange a maximum of 5 LED bulbs. These rural households will also have metres installed in their houses to account for usage.
- ♦ Further on, carbon credit documentation will be sent to UN accredited validators for inclusion into the Shine Program of activities.
- Carbon credits will be prepared

an open process based on initial discussions with the market. The balance cost and margin on the LED cost will be recouped through the carbon credits earned.

- ♦ Gram Ujala programme will be financed entirely through carbon credits and will be the first such programme in India.

under the Shine Program of Activities with an option for verifying under the Voluntary Carbon Standard, depending on the needs of buyers.

□ Carbon Credit Buyers will also be sought through

Significance

- ♦ The programme will have a significant impact on India's climate change action energy savings of 2025 million KWh/year and CO2 reductions of 1.65 million T CO2/year.
- ♦ If all 300 million lights in India were replaced, the total energy savings would be 40,743 million kWh/year, avoided peak demand of 22,743MW/year and CO2 reductions of 37 million tons per year.
- ♦ The programme will enable better illumination, at an affordable price of INR 10/bulb.
- ♦ This will usher in a better standard of life, financial savings, more economic activity, better safety for rural citizens and help in achieving a sustainable future.



03

Ken-Betwa Link Project

- ♦ On the occasion of World Water Day on April 22, a memorandum of agreement was signed between Union Minister of Jal Shakti and the chief ministers of Madhya Pradesh and Uttar Pradesh to implement the Ken-Betwa Link Project (KBLP).

About Ken-Betwa Link Project

- ♦ The Ken-Betwa Link Project is the first project under the National Perspective Plan for interlinking of rivers. Under this project, water from the Ken River will be transferred to the Betwa River. Both these rivers are tributaries of river Yamuna.



- ♦ The Ken-Betwa Link Project has two phases. Under Phase-I, one of the components — Daudhan dam complex and its appurtenances like Low Level Tunnel, High Level Tunnel, Ken-Betwa link canal and Power houses — will be

completed. While in the Phase-II, three components — Lower Orr dam, Bina complex project and Kotha barrage — will be constructed.

- ♦ According to the Comprehensive Detailed Project Report, the

cost of Ken-Betwa Link Project is estimated at Rs 35,111.24 crore at 2017-18 prices.

Proposed Benefits

- ◆ The Ken-Betwa Link Project lies in Bundelkhand, a drought-prone region, which spreads across 13 districts of Uttar Pradesh and Madhya Pradesh.
- ◆ According to the Union Jal Shakti Ministry:
 - The project is expected to provide annual irrigation of 10.62 lakh

hectares, drinking water supply to about 62 lakh people and also generate 103 MW of hydropower.

- The project will be of immense benefit to the water-starved region of Bundelkhand, especially in the districts of Panna, Tikamgarh, Chhatarpur, Sagar, Damoh, Datia, Vidisha, Shivpuri and Raisen of Madhya Pradesh and Banda, Mahoba, Jhansi and Lalitpur of Uttar Pradesh.

Other Examples

- ◆ In the past, several river linking projects have been taken up. For instance, under the Periyar Project, transfer of water from Periyar basin to Vaigai basin was envisaged.
- ◆ It was commissioned in 1895. Similarly, other projects such as Parambikulam Aliyar, Kurnool Cudappah Canal, Telugu Ganga Project, and Ravi-Beas-Sutlej were undertaken. 🔍📖📌

04

Martyrs' Day 2021



- ◆ Martyrs' Day, also called Shaheed Diwas, is celebrated in India on March 23 every year.

Background

- ◆ On Shaheed Diwas, Indians in particular pay tribute to Bhagat Singh, Sukhdev Thapar and Shivaram Rajguru. These freedom fighters had lost their lives on March 23 in 1931 during the struggle for

India's independence. They were hanged for assassinating British officer John Saunders in 1928.

- ◆ They plotted to kill James A Scott, who was the Superintendent of Police in the British Raj, as he had ordered the lathi charge where Lala Lajpat Rai eventually got injured and passed away due to the injuries. However, the trio killed John P Saunders, an Assistant

Superintendent of Police, instead of James A Scott, due to mistaken identity. They were later charged for the murder of Saunders, and sentenced to death.

- ◆ In 1929, Bhagat Singh and his associate threw a bomb at the Central Legislative Assembly in Delhi to protest the implementation of the Defence of India Act by cheering the slogan of "Inquillab Zindabad (long live the revolution)".

Significance

- ◆ For many young Indians, Bhagat Singh, Rajguru, Sukhdev have become a source of inspiration. Even during the British rule, their sacrifice urged many people to come forth and fight for their freedom. Therefore, in order to homage to the three of these revolutionaries, India has commemorated March 23 as Shaheed Diwas. 🔍📖📌

05 World Meteorological Day 2021

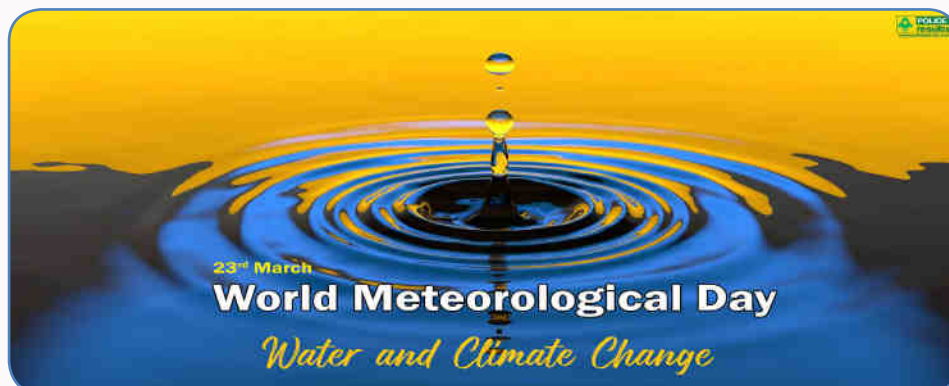
- ◆ Every year the world celebrates March 23 as World Meteorological Day to highlight the importance of the role that people and their behaviour play in protecting Earth's atmosphere.

Theme

- ◆ The theme of World Meteorological Day 2021 is "The Ocean, Our Climate and Weather."
- ◆ According to WMO, the theme has been chosen to reflect the organisation's focus on "connecting the ocean, climate and weather within the Earth System."
- ◆ The theme has also been chosen as this year marks the starting year of the United Nations Decade of Ocean Science for Sustainable Development, which focuses on gathering support for ocean science and understanding the role that ocean science plays in sustainable development.

Importance of Oceans

- ◆ Covering some 70% of the Earth's surface, the ocean is a major driver of the world's weather and climate.



It also plays a central role in climate change. The ocean is also a major driver of the global economy, carrying more than 90% of world trade and sustaining the 40% of humanity that lives within 100 km of the coast.

- ◆ Recognizing this, National Meteorological and Hydrological Services and researchers regularly monitor the ocean and how it is changing, modeling how it affects the atmosphere and delivering a wide variety of marine services, including supporting coastal management and Safety of Life at Sea. Today, the growing impacts of climate change are making ocean observations, research and services more critical than ever before.

Background

- ◆ The day is also celebrated to mark the establishment of WMO, which has 193 member countries and territories.
- ◆ The organisation originated from the International Meteorological Organization (IMO), the idea of which is rooted in the Vienna International Meteorological Congress 1873. WMO was then established by the ratification of the WMO convention in 1950 after which the organisation became a specialised agency of the United Nations (UN) in 1951. The headquarters of WMO are located in Geneva, Switzerland. 📍📍📍

06 Jharkhand's SAAMAR campaign

- ◆ The Jharkhand government has announced the launch of SAAMAR (Strategic Action for Alleviation of Malnutrition and Anemia Reduction) campaign to tackle malnutrition in the state.

Key Highlights

- ◆ The campaign aims to identify

anemic women and malnourished children and converge various departments to effectively deal with the problem in a state where malnutrition has been a major problem.

- ◆ SAAMAR has been launched with a 1000 days target, under

which annual surveys will be conducted to track the progress. It talks of convergence of various departments such as Rural Development Department and Food and Civil Supplies and engagement with school management committees, gram sabhas among others and

making them aware of nutritional behaviour.

- ◆ Most importantly, the campaign, as per the note, also tries to target Primarily Vulnerable Tribal Groups. Stating that there is no research based information available on their food and nutritional habits, it encourages research and proposes fellowships on nutritional behavior of these groups for effective implementation.
- ◆ SAMAAR says it will capitalize on the Tejaswini Project functioning in the 17 districts of the state where 12, 800 youth communities—of women and adolescent girls have

been formed—are being trained in various skills, entrepreneurship and for jobs.

Need

- ◆ The recent Economic Survey quoted The Comprehensive National Nutrition Survey conducted in the state during March 2017 to July 2017 stating that based on the sample data, 36% of under five years of age are stunted—height for age, 29% are affected from Wasting—weight for height, and 45% are underweight—weight for age, indicating the status of undernutrition.

- ◆ Further, as per National Family Health Survey-4 data, every second child in the state is stunted and underweight and every third child is affected by stunting and every 10th child is affected from severe wasting and around 70% children are anemic.
- ◆ According to an internal note of the Women and Child Development Department, although existing schemes are there, seeing the current situation, intervention was required with a 'different approach' to reduce malnutrition. 

07 Blockage of Suez Canal

- ◆ On March 23, the Ever Given, a container ship almost as long as the Empire State Building is tall, ran aground after being caught in 40-knot winds and a sandstorm that caused low visibility and poor navigation.

Importance of Suez Canal

- ◆ About 10% of all global trade flows through the 193-kilometer-long canal, which allows tankers and container ships to avoid a long trip around the southern tip of Africa.
- ◆ The iconic shipping journal Lloyd's List estimates that goods worth \$9.6 billion pass through the canal every day. Lloyd's says about \$5.1 billion of that traffic is westbound and \$4.5 billion is eastbound.
- ◆ About one-fourth of that traffic is on container ships — like the one

that is currently burrowed into one side wall of the canal. Lloyd's says more than 50 ships traverse the canal on an average day, carrying 1.2 billion tons of cargo.

Effects on Supply Chains

- ◆ When it comes to shipping goods from Asia to Europe, there are virtually no alternatives such as rail or truck transportation. The blockage will delay a range of parts and raw materials for European products such as cotton from India for clothes, petroleum from the Middle East for plastics, and auto parts from China.
- ◆ There will be less direct impact on the United States, which receives most shipments from Asia on the West Coast. Still, imports from Europe may be delayed, and the blockage will prevent empty shipping containers from

being returned to Asia, adding to a container shortage caused by rising demand for consumer goods during the pandemic.

Impact on India

- ◆ India is the top importer of crude oil and products via the Suez Canal, higher than China, South Korea or Singapore.
- ◆ For India, though, the main hit could be seen on the import and export of ethane with the US, and the imports of crude from Latin America, the uptake of which was recently increased.
- ◆ Among exporters of crude products via the Suez Canal, India is sixth in the pecking order behind Russia, Saudi Arabia, Iraq, Libya and Algeria at a little less than 200,000 barrels per day. 

7

IMPORTANT PRACTICE QUESTIONS (For Mains)



01 “Post-pandemic challenges must be tackled through cooperation.” Discuss it in the context of Indian scenario.

02 The idea of net zero emissions by 2050 is being advocated as a panacea for the evil of climate change. Critically evaluate.

03 Critically analyse how updated land records can help revive rural economy.

04 Evidence-based nutritional interventions in India can have long-term positive impacts on mothers and children’s health. Elaborate.

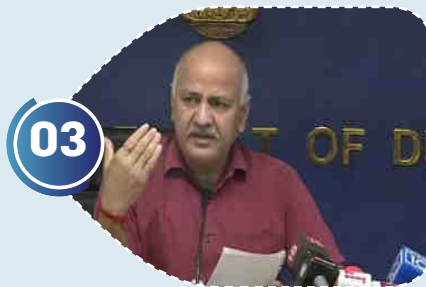
05 Discuss how “Catch the Rain” campaign under the government’s flagship programme, Jal Shakti Abhiyan can ensure India’s demand of safe drinking water and sufficient supplies to industry and agriculture.

06 Is privatising public assets sign of poor economics and greater wealth inequality? Do you agree? Justify with suitable examples.

07 Explain the difference between the frontier and the boundary with special reference to India.

7

IMPORTANT FACTS (For Prelims)



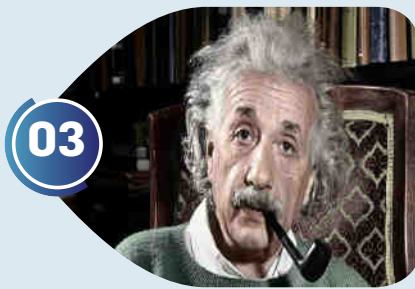
- 01** Who has been conferred with Vyas Samman 2020?
Prof. Sharad Pagare
- 02** Who has been selected for the Maharashtra Bhushan award, the State government's highest honour?
Asha Bhosle
- 03** Which state government has decided to reduce the minimum age for liquor consumption from 25 to 21?
Delhi
- 04** What is the theme of 'World Tuberculosis (TB) Day' for the year 2021?
'The Clock is Ticking'
- 05** Which state has launched India's first government run ambulance network for animals?
Andhra Pradesh
- 06** What is the rank of India on the latest annual edition of the International Intellectual Property (IP) Index?
40th
- 07** Who has been conferred with 51st Dadasaheb Phalke Award?
Rajinikanth

7

IMPORTANT QUOTES (For Essay and Answer Writing)



01



03



05

01

"Every man takes the limits of his own field of vision for the limits of the world."

Arthur Schopenhauer

02

"An investment in knowledge always pays the best interest."

Benjamin Franklin

03

"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid."

Einstein

04

"The only thing we have to fear is fear itself."

Franklin Roosevelt

05

"Ninety-nine per cent of the failures come from people who have the habit of making excuses."

George Washington

06

"Never look back unless you are planning to go that way."

Henry David Thoreau

07

"A man may die, nations may rise and fall, but an idea lives on. Ideas have endurance without death."

John F. Kennedy

AN INTRODUCTION

Dhyeya IAS, a decade old Institution, was founded by Mr. Vinay Singh and Mr. Q.H. Khan. Ever since its emergence it has unparalleled 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 realize their dreams which is evident from success stories of the previous years.

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 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.

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Distance learning Programme, DSDL, primarily caters the need for those who are unable to come to metros for economic or family reason but have ardent desire to become a civil servant. Simultaneously, it also suits to the need of working professionals, who are unable to join regular classes due to increase in work load or places of their posting. The principal characteristic of our distance learning is that the student does not need to be present in a classroom in order to participate in the instruction. It aims to create and provide access to learning when the source of information and the learners are separated by time and distance. Realizing the difficulties faced by aspirants of distant areas, especially working candidates, in making use of the institute's classroom guidance programme, distance learning system is being provided in General Studies. The distance learning material is comprehensive, concise and exam-oriented in nature. Its aim is to make available almost all the relevant material on a subject at one place. Materials on all topics of General Studies have been prepared in such a way that, not even a single point will be missing. In other words, you will get all points, which are otherwise to be taken from 6-10 books available in the market / library. That means, DSDL study material is undoubtedly the most comprehensive and that will definitely give you added advantage in your Preliminary as well as Main Examination. These materials are not available in any book store or library. These materials have been prepared exclusively for the use of our students. We believe in our quality and commitment towards making these notes indispensable for any student preparing for Civil Services Examination. We adhere all pillars of Distance education.

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