

CURRENT AFFAIRS

WEEKLY

WEEK: 4
JUNE
2021

MAINS

GS-I

**OPERATION
BLUE STAR**

GS-I

**ATLANTIC
CHARTER FOR
A NEW ERA**

GS-I

**CATCH
THE RAIN
CAMPAIGN**

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**RECORD FDI
INFLOWS IN
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- Puri Rath Yarta

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GOVERNANCE

- Aspirational
Districts
Programme

- One nation one
ration card

- Tigray Crisis: A new
'Famine' in Ethiopia

ENVIRONMENT

- Dihing Patkai
becomes the 7th
National Park of
Assam

- Gharial
Conservation Efforts
in Odisha

SCIENCE &
TECHNOLOGY

- CHIME Telescope
- EnVision Mission
- New Waste
Water Treatment
Technology

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The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST

WEEK- 4 (JUNE, 2021)

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SECTION: A

(MAINS)

CURRENT AFFAIRS

OPERATION BLUE STAR

CONTEXT

Operation Blue Star, carried out by Indian Army in the month of June 1984, is observing its 37th anniversary which was targeted towards elimination of Jarnail Singh Bhindranwale who was demanding a separate state of Khalistan.

◎ BACKGROUND

- Sikhs have been concentrated in the Punjab region of South Asia.
- Before its conquest via way of means of the British, the place round Punjab have been dominated via means of the confederacy of Sikh Misls founded by Banda Bahadur.
- British India was partitioned on a religious basis in 1947, where the Punjab province was divided between India and the newly-created Pakistan.
- Following the 1947 independence of India, the Punjabi Suba movement, led by the Akali Dal, sought the creation of a province (suba) for Punjabi people.
- The Akali Dal's maximal position of demands was a sovereign state (i.e. Khalistan), even as it's minimum requirement became to have an self reliant nation inside India.

- Positioning itself as the sole guardian of the faith and religion served as a politically meaningful narrative for a party seeking to overthrow Congress in Punjab.

Who Was Jarnail Singh Bhindranwale?

- Jarnail Singh Bhindranwale – a religious scholar who'd been travelling across Punjab advocating a return to the **Khalsa or a more orthodox form of Sikhism**.
 - ▶ He targeted Hindus and so called '**modernised**' **Sikhs**, who went against their customs and tradition, for example those who cut their hair and consumed alcohol.
 - ▶ His message appealed to the Jat farmers, who had lost the gains of the Green Revolution to the big landowners.
 - ▶ He also found buyers among artisans and lower-caste workers who wanted to regain a social and economic position.

◎ ANALYSIS

What was the Anandpur Sahib Resolution?

- The **Punjabi movement** galvanised considerable political support for the Akali Dal and after a brief split, the party came together under **Parkash Singh Badal's** leadership, giving the Congress a tough fight in the 1967 and 1969 assembly elections.
- The 1972 election, however, proved to be blip in the Akalis' rising political graph. Congress came to power, which led **Shiromani Akali Dal** to look inside themselves as introspection.
- The venue for this introspection was the **Anandpur Sahib Gurudwara**, where the party adopted a resolution that would serve as a blueprint for the party's future agenda.
- The resolution called for **autonomy for the state of Punjab**, identified regions that would be part of a separate state, and called for the right to draft its own internal constitution.
- With the **Anandpur Sahib resolution**, the Akalis tried to create the perception that Sikh religion could not be separated from Sikh politics.

Why Was the Indian Army Called in?

- At first, other options were discussed. Prime Minister Indira Gandhi was on the verge of approving an undercover snatch-and-grab operation to kidnap Bhindranwale.
- Almost two hundred commandos were trained for this operation, but when she asked how many civilian casualties were to be expected, there was no answer.
- And so, Operation Sundown was rejected.
- Perhaps the reason for suddenly sending in the Army, Amarjit Kaur writes in 'The Punjab Story', was the threat to kill all Congress (I) MPs and MLAs on 5 June and the plan to begin mass killings of Hindus in villages.

What Did Operation Bluestar Entail?

- **Between 1-3 June, 1984,**
 - ▶ Rail road and air services in Punjab were suspended.
 - ▶ The water and electricity supply to the Golden Temple was also interrupted.
 - ▶ A full curfew was imposed in Amritsar and the CRPF patrolled the streets.

- ▶ All entry and exit points to and from the Golden Temple have also been completely sealed.
- **On 5 June 1984**, the first phase of the operation was launched. A frontal attack was carried out on the buildings within the Golden Temple complex. The trained fighters offered strong resistance to the Indian army. The army was unable to advance towards the Sanctum Sanctorum, which allegedly housed Bhindranwale.
- ▶ In other parts of Punjab, the Army had launched a simultaneous operation to round up suspects from villages and Gurudwaras.
- **On 6 June**, tanks rolled down the staircase right up to the **parikrama** – the perimeter that encloses the lake on which the sanctum sanctorum is built.
- Tanks bombed the exterior of Akal Takth and although it suffered external damage, the building

remained standing. The bodies of Bhindranwale and their commanders were recovered.

- **On June 7**, the Indian army took control of the site.

◎ CONCLUSION

- Operation Bluestar coincided with the annual commemoration of the martyrdom of the fifth Sikh Guru, Guru Arjan Dev, which led to a large number of pilgrims flocking to the temple complex. Because of this, many innocent civilians were killed in the crossfire between the Indian army and the terrorists.
- Four months later, on 31 October 1984, Prime Minister Indira Gandhi was assassinated by her two Sikh bodyguards.

ATLANTIC CHARTER FOR A NEW ERA

CONTEXT

At the CARBIS BAY, England, the US President Biden and the British Prime Minister Boris Johnson signed a new version of the 80-year-old “Atlantic Charter” recently, using their first meeting to redefine the Western alliance and accentuate what they said was a growing divide between battered democracies and their autocratic rivals, led by Russia and China.

◎ BACKGROUND

- Meeting on the eve of the **G-7 summit**, both the leaders released a “revitalized” Atlantic Charter, rededicating their governments to the defense of an open, rule-bound world, and seeking to rally the West at a time of global crisis.
- First announced on **August 14, 1941**, a group of 26 Allied nations eventually pledged their support to the original Charter by January 1942.
- The document is considered one of the first key steps toward the establishment of the United Nations in 1945 and of the NATO.
- The 1941 Charter** had grown musty and did not reflect a world of different challenges, from cyberspace threats, climate crisis, Covid-19 to China.

Therefore, the need of the hour was to revamp the charter to reinforce democracy, open societies, and a rules-based world order.

◎ ANALYSIS

The original Atlantic Charter

- The original Atlantic Charter included eight common principles.
- Among them, the United States and Britain agreed not to seek territorial gains from the war, and they opposed any territorial changes made against the wishes of the people concerned.
- The two countries also agreed to support the restoration of self-government to those nations who had lost it during the war.
- Additionally, the Atlantic Charter stated that people should have the right to choose their own form of government.
- Other principles included access for all nations to raw materials needed for economic prosperity and an easing of trade restrictions.
- The document also called for international cooperation to secure improved living and working conditions for all; freedom of the seas; and for all countries to abandon the use of force.

The new charter

Alike the older charter, the new charter also includes eight common principles.

- First**, to defend the principles, values, and institutions of **democracy and open societies**, driving national strength and the alliances.
- Second**, intending to strengthen the institutions, laws, and norms that sustain international co-operation to adapt them to meet the new challenges of the 21st century, and work through the **rules-based international order** to tackle global challenges; embrace the promise and manage the peril of emerging technologies; promote economic advancement and the dignity of work; and enable open and fair trade between nations.
- Third**, to remain united behind the principles of **sovereignty, territorial integrity, and the peaceful resolution of disputes**; to defend key principles such as freedom of navigation and overflight and other internationally lawful uses of the seas.
- Fourth**, to harness and protect **innovative edge inscience and technology** to support shared security and deliver jobs at home; to open new markets; to promote the development and deployment of new standards and technologies to support democratic values; to continue to invest in research into the biggest challenges facing the world; and to foster **sustainable global development**.
- Fifth**, to affirm the shared responsibility for maintaining the **collective security and international stability** and resilience against the full spectrum of modern threats, including **cyber threats. NATO will remain a nuclear alliance**.
- Sixth**, to continue building an inclusive, fair, **climate-friendly, sustainable, rules-based global economy** for the 21st century; to strengthen financial stability and transparency, fight corruption and illicit finance, and innovate and compete through high labour and environmental standards.
- Seventh**, to tackle the **climate crisis, protect biodiversity, and sustain nature**.
- Eighth**, to strengthen **health systems and advance health protections**, and to assist others to do the same.

Significance of the new charter

- Where the original charter contemplated the “final destruction of the Nazi tyranny” and called for freedom to “traverse the high seas and oceans without hindrance,” the new version focused on the “climate crisis” and the need to “protect biodiversity.”
- It is sprinkled with references to “emerging technologies,” “cyberspace” and “sustainable global development.”
- In a direct rebuke of Russia and China, the new agreement calls on Western allies to “oppose interference through disinformation or other malign influences, including in elections.”
- It ranks the threats to democratic nations in a technological era.
- By taking a leading part in the effort to vaccinate the world and providing resources to confront the gravest public health challenges, it is a powerful demonstration that democracies — and not China or Russia — are capable of responding to the world’s crises, and can do so faster and more effectively.
- It underscores Biden’s desire to move away from the ‘America First’ foreign policy doctrine of Trump and affirms his aspiration of re-establishing America as a prominent defender of the international world order.

What is in it for India?

- Signing of new Atlantic charter is a key stepping stone in India interaction with the west since during signing of last charter Britain PM Churchill specifically excluded Indians from the principles of self-determination which form the core of previous charter.
- This had poisoned India’s relation with west in its initial years and cast a long shadow of mistrust in years to come.

- New Atlantic charter deals with challenges like climate change, biodiversity, rise of authoritarianism in which India is a key stakeholder thus can hold the promise of heralding a new chapter in India relationship with the west.
- Furthermore, the commitment of USA to provide 500 million Covid vaccines without any strings attached also come as a breather to countries like India who are emerging from deadly second wave of covid and grappling with acute shortage of vaccines.

◎ CONCLUSION

- The new Charter largely reaffirms existing policies, focusing on the need to strengthen cooperation in areas such as security, technology and global health, all of which the US and UK already work together on.
- Those days, however, are long gone when America was dominant globally and to succeed the new Charter and it’s all of eight principles, it will need the entire like-minded liberal countries at the same platform. The invitation to India, South Africa, and Australia was a calculated step in this direction.
- The global landscape and agenda have shifted. America’s main strategic adversary, China, is becoming a true peer competitor, with an economic might and technological prowess the Soviet Union never enjoyed. Biden, arguing that we are at “an inflection point in history,” seeks to reconsolidate a core of Western democracies that can collectively push back against Beijing, as well as Moscow.
- But this club approach to world order, founded on a core of advanced market democracies, has its limits, not least because the United States is deeply entwined economically with China and will need cooperation from its rival—as well as Russia—to address a slew of transnational threats, among them the existential dangers posed by climate change and nuclear proliferation.

CATCH THE RAIN CAMPAIGN

CONTEXT

Union Minister of State for Jal Shakti has urged his fellow legislators by writing individual letters to support the ongoing 'Catch The Rain Campaign' under National Water Mission during the monsoon season.

◎ BACKGROUND

- The campaign with the theme 'Catch the rain where it falls, when it falls' was launched by Prime Minister on March 22, coinciding with the **World Water Day**.
- The campaign aims at tapping rainwater by constructing artificial recharge structures, revitalising existing ponds and water bodies, creating new water bodies, provisioning check dams, rejuvenating wetlands and rivers before the onset of monsoon.
- It is also planned to create a database of all water bodies in the country by geo-tagging them and using this data to create scientific and data-based district-level water conservation plans.

National Water Mission

- The main objective of the National Water Mission is "conservation of water, minimizing wastage and ensuring its more equitable distribution both across and within States through integrated water resources development and management". The five identified goals of the Mission are:
 - ▶ comprehensive water data base in public domain and assessment of impact of climate change on water resource
 - ▶ promotion of citizen and state action for water conservation, augmentation and preservation
 - ▶ focused attention to vulnerable areas including over-exploited areas
 - ▶ increasing water use efficiency by 20%
 - ▶ promotion of basin level integrated water resources management

- ▶ 16 out of the 27 states still score less than 50 points on the Index (out of 100), and fall in the low-performing category. These states collectively account for ~48% of the population, ~40% of agricultural produce, and ~35% of economic output of India
- ▶ Given the indispensable role of water in any form of economic activity, water shortages can lead to reduced output in the states with low score, and as a consequence, threaten employment and livelihood opportunities in these population clusters
- ▶ Food security is also at risk, given that large agricultural producers are struggling to manage their water resources effectively

• Central Water Commission's Reservoir Level & Storage Bulletin

- ▶ The total live storage capacity of 130 reservoirs monitored across India is 174.233 BCM which is about 67.58% of the live storage capacity of 257.812 BCM which is estimated to have been created in the country
- ▶ As per reservoir storage bulletin dated 17.06.2021, live storage available in these reservoirs is 47.631 BCM, which is 27% of total live storage capacity of these reservoirs

Why rainwater harvesting is desirable?

Water harvesting initiatives are driven by firm beliefs and assumptions, some of which are:

- there is a huge amount of monsoon flow, which remains un-captured and eventually ends up in the natural sinks, especially seas and oceans, supported by the national level aggregates of macro hydrology
- local water needs are too small and as such exogenous water is not needed
- local water harvesting systems are always small and, therefore, are cost effective
- since the economic, social and environmental values of water are very high in regions hit by water shortages, water harvesting interventions are viable, supported by the assumption that cost-effective alternatives that can bring in the same amount of water, do not exist
- incremental structures lead to incremental benefits

◎ ANALYSIS

Why water conservation is required?

- **The Comprehensive Water Management Index (CWMI) 2019**

- being small with low water storage and diversion capacities, they do not pose negative consequences for downstream uses
- **State success stories: participatory and decentralized rural water management**
 - Mukhya Mantri Jal Swavlambhan Abhiyan , Rajasthan
 - After first phase there was 56% reduction of water supply through tankers and an average rise in the groundwater table by 4.66 feet in 21 non-desert districts of the states
 - Neeru-Chettu Programme, Andhra Pradesh
 - Efforts under the Neeru-Chettu programme have enabled irrigation access to nearly 2,10,000 acres of land in the state
 - Jalyukt Shivar Abhiyan, Maharashtra
 - 11,000 villages have been declared drought-free and agricultural productivity has increased by 30-50%.
 - Jakhni Village, Bundelkhand, Uttar Pradesh
 - Jakhni village of Banda district in the Bundelkhand region was one of the most water scarce regions of India. Once a drought prone village, now produces nearly 23,000 quintals of Basmati rice.

Other strategies of water conservation

- **Better Irrigation Practices:** For crop irrigation, optimal water efficiency means minimizing losses due to evaporation, runoff or subsurface drainage.
- **Use of Saline Water for Irrigation-** Saline water is widely available but rarely used. Salt resistant varieties of crops have also been developed in recent times.
- **Mulching,** i.e., the application of organic or inorganic material such as plant debris, compost, etc., slows down the surface run-off, improves the soil moisture, reduces evaporation losses and improves soil fertility.

- **Fog and dew** contain substantial amounts of water that can be used directly by adapted plant species. Artificial surfaces such as netting-surfaced traps or polyethylene sheets can be exposed to fog and dew.
- **Contour farming** is adopted in hilly areas and in lowland areas for paddy fields. Farmers recognize the efficiency of contour-based systems for conserving soil and water.
- **Tippy Tap for water conservation:** - Tippy Tap is a simple device which dispenses a limited amount of water slowly and facilitates a thorough hand wash. In case of piped water supply, every time the tap is opened for a hand wash, an average of 300 - 500 ml of water is utilized. Using Tippy Tap it is possible to have a good hand wash with only 60 to 80 ml of water
- **Propagation of Dry Garden/Eco Lawns-** As a step towards water conservation and propagation of native plant species, drought resistant plantation (plants requiring less water) should be carried out.
- **Soak pit construction-** Water run offs and water logging are combated by constructing soak pits near water points like hand pumps. This is a sanitation measure and also helps in recharge of ground water.

◎ CONCLUSION

In order to tackle the multi-faceted drivers and impacts of water scarcity, states must adopt a water lens into policy making and planning across sectors. Importantly, states must supplement urgent top-down water legislations with a grassroots management approach that involves local community organizations, NGOs, farmer groups, and industry bodies in ideation and implementation of water related policies and projects.

RECORD FDI INFLOWS IN INDIA

CONTEXT

As per the latest data provided by the Ministry of Commerce and Industry, India saw its highest-ever inflow of foreign direct investment (FDI) of \$81.72 billion during the financial year 2020-21 which is a 10 per cent rise on a year-on-year basis.

◎ BACKGROUND

- The Reserve Bank of India (RBI) reported that the equity component of inflows was over USD 61.4 billion, a 19% increase over the USD 51.7 billion received in 2019-20.
- Out of all states in the country,
 - Gujarat has emerged as the top FDI destination, accounting for 37 per cent of the total inflows.
 - Maharashtra (27 per cent) and Karnataka (13 per cent) were second and third in terms of inflows received.
- It may be noted that Gujarat has bagged the top spot for the fourth consecutive year in a row. The state saw total FDI inflow of \$30.23 billion in the last financial year.
- The top investors who contributed to India's high FDI inflow in FY21 include Singapore (29 per cent), followed by the US (23 per cent) and Mauritius (9 per cent).
- Construction activity (infrastructure), computer software and hardware, rubber goods, retail trading, drugs and pharmaceuticals and electrical equipment have registered more than 100 per cent jump in equity during FY21 as compared to the previous year.
- The credit for this record level of inflows was given to FDI policy reforms, investment facilitation and ease of doing business.

◎ ANALYSIS

What is FDI?

- A foreign direct investment (FDI) is an investment made by a firm or individual in one country into business interests located in another country.
- Generally, FDI takes place when an investor establishes foreign business operations or acquires foreign business assets in a foreign company.
- FDIs are distinguished from portfolio investments in which an investor merely purchases equities of foreign-based companies.

- Foreign direct investments can be made in a variety of ways, including the opening of a subsidiary or associate company in a foreign country, acquiring a controlling interest in an existing foreign company, or by means of a merger or joint venture with a foreign company.
- The threshold for a foreign direct investment that establishes a controlling interest, per guidelines established by the Organisation of Economic Co-operation and Development (OECD), is a minimum 10% ownership stake in a foreign-based company.
- However, that definition is flexible, as there are instances where effective controlling interest in a firm can be established with less than 10% of the company's voting shares.
- FDI is an important monetary source for India's economic development.
- Economic liberalization started in India in the wake of the 1991 crisis and since then, FDI has steadily increased in the country.
- India today is a part of top 100-club on Ease of Doing Business (EoDB) and globally ranks number 1 in the Greenfield FDI ranking.

Routes through which India gets FDI

- **Automatic route:** The non-resident or Indian company does not require prior nod of the RBI or government of India for FDI.
- **Government route:** The government's approval is mandatory. The company will have to file an application through Foreign Investment Facilitation Portal. The application is then forwarded to the respective ministry, which approves/rejects the application in consultation with the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce. DPIIT then issues the Standard Operating Procedure (SOP) for processing of applications under the existing FDI policy.

Impact of FDI inflows

- Foreign Direct Investment (FDI) leads to the long term growth of the economy. MNCs bring about technology transfer to the domestic companies which lead to the organic growth or expansion takes place in the companies also in the Employment.
- FDI strengthens the balance sheet as it raises the assets of the companies. Profits of the businesses increase and labor productivity also increases.
- Per capita income increases and consumption improves. Tax revenues increase and government spending rises.
- GDP increases and there is also a lagged effect due to which subsequent years GDP too increases.
- Furthermore investment has gestation period and returns increase after few years.
- FDI puts the companies and hence the economy on higher growth mode and the right process of FDI is selection of the strategic sectors in the economy that generate highest RoI.
- FDI also acts as a solid complement to domestic stock of investment which is low (about 32%) in India because of low savings. This investment raises competitiveness among the businesses, breeds innovation and efficiency and increases standard of living through better products and services in the market.
- Exports get a fillip and balance of payments show surplus which causes rupee to appreciate vis-à-vis Dollar.
- Forex reserves rises significantly and this causes RBI's assets to increase due to which money supply rises and thus inflation too rises according to Quantity Theory of Money.
- In FDI there is technology transfer or the movement of technical knowhow to the domestic country due to which skill development takes place and together with higher capital this raises productivity and profitability.

FII's

- A foreign institutional investor is an investor in a financial market outside its official home country.
- FIIs can include hedge funds, insurance companies, pension funds, investment banks, and mutual funds.
- FIIs can be important sources of capital in developing economies, yet many developing nations, such as India, have placed limits on the total value of assets an FII can purchase and the number of equity shares it can buy, particularly in a single company.

- This helps limit the influence of FIIs on individual companies and the nation's financial markets, and the potential damage that might occur if FIIs fled en masse during a crisis.
- FII investments (which is different from FDI's) of USD 38 billion have arrived in India during 2020-21.

Is the recent surge good for the Indian Economy?

- The bulk of the investments involve merely a transfer of shares without creating productive assets in economy which is contrary to the belief that FDI can contribute to the revival of the economy.
- Although FDI inflows were stronger in last FY, their distribution has been highly skewed.
 - **Forexample;** the manufacturing sector received just 17.4% of the total inflows whereas, the services sector attracted nearly 80% of the total inflows with information technology-enabled services (ITeS) being the largest component.
- Because the Facebook's share is pegged at 9.9% in Jio Platform, it will not facilitate sharing of managerial experience and technical expertise due to the 10% rule.
- Along with the high inflows in the FDI's, there has also been a high increase in the FIIs (of USD 38 Billion) and 47.2% increase in repatriation/disinvestment too in the same Financial Year.
- Surely, sustained sizeable repatriation of the long-term FDI, together with a large increase in speculative capital (FIIs) does not bode well for an economy looking to recover from an economic slump.

◎ CONCLUSION

- Although the government has cited the reason for this huge inflow as key policy reforms as well as investment facilitation but the inflows have not been in sync with the government's priorities for the post-COVID-19 economic recovery: the Aatma Nirbhar Bharat Abhiyaan, focusing on the revival of the manufacturing sector through the Performance Linked Incentive (PLI) scheme and huge investment in the infrastructure sector.
- And when this is the situation, then the celebration for the historical surge of FDI inflows in an FY is clearly questionable.

MEDICAL ETHICS

CONTEXT

The Ethics and Medical Registration Board at National Medical Commission has got its new president, duly appointed by Ministry of Health and Family Welfare as per the National Medical Commission Act, 2019.

◎ BACKGROUND

- There are plethora of 'codes of conduct' and laws in place to regulate the medical profession in India both at individual and organisational levels but complaints have been increasingly large against the unethical practices of physicians due to the increasing public awareness.
- Prior to 2019, The Ethics committee of Medical Council of India was in charge of upholding the principles of Medical Ethics and impart punishment to errant doctors in violation of MCI code of Medical Ethics
- After the enactment of NMC Act, 2019 MCI was dissolved and a fresh board for Ethics and Medical Registration was constituted.

◎ ANALYSIS

What is medical ethics?

- Medical ethics is that applied branch of ethics which describes the moral principles by which a medical practitioner must conduct themselves.
- It is astonishing to know that medical ethics is a changing yardstick. Something that might have been considered ethical during last century may not be today – and what we think is ethical at present may change with passing time.
- The four pillars of medical ethics are:
 - Beneficence
 - The idea that medical interference will do good to the patient
 - Non-maleficence
 - Not to harm your patient, than to do them good, which is part of the Hippocratic oath that doctors take.
 - Autonomy
 - Right of the patient of self determination regarding their own treatment
 - Justice
 - The fair distribution of healthcare resources

What are the ethical issues faced by medical practitioners?

- **Physician-Assisted Suicide and Euthanasia:** The Hippocratic Oath states: 'I will give no deadly medicine to anyone if asked, nor suggest any such counsel'. This has been ordained to maintain sanctity and dignity of life so that doctors' professional capabilities are not abused. Nevertheless, during the course of a terminal illness and in the care of patients with irreversible life-threatening disease, a time comes when it is appropriate for the doctor to stop further attempts to prolong misery and allow death with dignity
- **Obligations Towards Patients:** A physician is not duty bound to treat each and every patient requesting his services. However, he has a moral obligation to provide emergency care to his regular patients. In the absence of a pre-existing relationship, the physician is not ethically obliged to provide care to every patient unless no other physician is available in the vicinity in the event of a dire emergency
- **Relationship With Other Physicians:** The relationship between physicians should be one of cooperation and friendship. They should be willing to provide mutual consultation to each other without any commission. While evaluating a referred patient, it is unethical for a physician to ridicule the professional competence, knowledge and services provided by the referring physician.
- **Expert Witnesses:** Physicians cannot be compelled to participate as expert witnesses but the profession in general has a moral responsibility and ethical duty to assist patients and society in resolving disputes. They must give an honest, objective and unprejudiced interpretation of medical facts
- **Advertising:** Self-promotion, display of large signboards, self-aggrandizement through media and press, claims for unusual miracle cures are unethical
- **Strikes By Physicians:** Despite the fact that medical services are essential, it is not uncommon for doctors to go on strikes. It is unethical for physicians to withhold medical services through strikes

- **Rebates, Commissions and Courtesies:** It is undesirable and unethical for physicians to give and solicit any gift, bonus or 'kickbacks' for referring patients for consultation and investigations. It is also unethical for physicians to receive courtesies, favours and gifts from manufacturers or suppliers of equipment and pharmaceuticals.
- **Research and Publications:** Fraud in research either by plagiarization or quantumjugglery should be condemned and those indulging in such acts should be punishable on grounds of professional misconduct. The stipulated code of conduct and format should be followed for scientific publications.
- **Professional Certificates:** Physicians are expected to issue a number of medical certificates-birth, death, vaccination, sick leave, disability, etc. It is common to see false medical certificates issued by physicians for monetary gain or due to political bureaucratic pressures.

Medical Ethics in Ancient India

Charaka clearly outlined four ethical principles of a doctor:

- Friendship towards the sick
 - Sympathy towards the sick
 - Interest in cases according to one's capabilities and
 - No attachment with the patient after his recovery
- The Charaka Samhita has extensively emphasised the values that are central to the nobility of this profession thus, 'Those who trade their medical skills for personal livelihood can be considered as collecting a pile of dust, leaving aside the heap of real gold'.

CONCLUSION

- The declining image of the medical profession needs a moral boost and rejuvenation through a process of soul-searching in the light of existing social realities.
- There is a need to introduce regular education programmes in the field of behavioural sciences and medical ethics for graduate and postgraduate medical students in all the medical schools of the country
- When practising physicians are more considerate, cautious, honest and ethical in their dealings with their patients, there should be no fear of consumer fora.

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PURI RATH YARTA

- ◎ **CONTEXT:** The annual Rath Yatra of Lord Jagannath and his siblings in the holy town of Puri will be conducted without any devotees adhering to Covid-19 protocols.

About the Ratha Jatra

- **Location:** Rathajatra, the Festival of Chariots of Lord Jagannatha is celebrated every year at Puri, the temple town in Orissa, on the east coast of India.
- **Deities:** The presiding deities of the main temple, Sri Mandira, Lord Jagannatha, Lord Balabhadra and Goddess Subhadra, with the celestial wheel Sudarshana are taken out from the temple on their respective chariots.
- **Features:** The huge, colourfully decorated chariots, are drawn by hundreds and thousands of devotees on the badadanda, the grand avenue to the Gundicha temple, some two miles away to the North.
 - After a stay for seven days, the deities return to their abode in Srimandira.
 - The description of the chariot has been explained in the Kathopanishada, Skanda Purana, Brahma Purana, Padma Purana, and Kapila Samhita, etc.
- **Other names:** The festival is also known as Gundicha Jatra, Ghosa Jatra, Navadina Jatra, Dasavatara Jatra and by a variety of other names.

The Chariots

- The three chariots of Balabhadra, Subhadra and Jagannatha are newly constructed every year with wood of specified trees like phassi, dhausa, etc. customarily brought from the ex-princely state of Dasapalla, by a specialist team of carpenters.
- Lord Jagannatha's Chariot is called Nandighosa; that of Lord Balabhadra is Taladhwaja; and the Chariot of Subhadra is known as Darpadalana.

Important information about Lord Jagannath

- Jagannath is considered a non-sectarian deity.
- He is significant regionally in the Indian states of Odisha, Chhattisgarh, West Bengal, Jharkhand, Bihar, Gujarat, Assam, Manipur and Tripura.
- The Jagannath temple in Puri, Odisha is particularly significant in Vaishnavism, and is regarded as one of the Char Dham pilgrimage sites in India.
 - The Jagannath temple is built in the Nagara style.
- It is one of the best surviving specimens of Kalinga architecture, namely Odisha art and architecture.

'BLUE DOT' NETWORK

- ◎ **CONTEXT:** The US, along with the Japanese and Australian governments, are reviving the 'Blue Dot Network'
- It is infrastructure initiative to provide an alternative to China's Belt and Road Initiative (BRI).

About 'Blue Dot Network'

- The Blue Dot Network was formally announced on 4 November 2019 at the Indo-Pacific Business Forum in Bangkok, Thailand during the 35th ASEAN summit.
- The project is led by the US's International Development Finance Corporation (DFC).
- **Objective:** The initiative is meant to galvanize the private sector investment in infrastructure development in emerging markets.
 - It is expected to serve as a global evaluation and certification system for roads, ports, and bridges with a focus on the Indo-Pacific region.
 - The projects that are approved will get a "Blue Dot", which would set universal standards of excellence to attract private capital to projects in developing and emerging economies.
 - It will be a globally recognized symbol of market-driven, transparent and sustainable infrastructure projects.
 - It will foster sustainable economic growth by promoting excellence in infrastructure development and supporting alternatives to predatory lending.
- **Principles:** The Blue Dot Network will use infrastructure development principles set by the G20 and G7 nations as a foundation for its standards.
- **Support:** OECD will provide technical and operational input to the global certification process.

Belt and Road Initiative (BRI)

- It is also known as the **One Belt One Road (OBOR) initiative**.
- It is a global infrastructure development strategy adopted by **China in 2013**.
- It aims to invest in nearly 70 countries and international organizations.
 - The infrastructure investments include ports, skyscrapers, railroads, roads, airports, dams, and railroad tunnels.
- The initiative includes the **ancient 'silk route' revival and the maritime silk route** also.

What role does India has to play?

- The US wants India on board for the project, as it remains the only member of the Quadrilateral Security Dialogue (Quad) to not be a part of the Blue Dot Network.

ASPIRATIONAL DISTRICTS PROGRAMME

© CONTEXT:

In an independent appraisal report, United Nations Development Programme (UNDP) India has lauded the Aspirational Districts Programme (ADP) as a very successful model of local area development.

- The report mentioned that it could be applied worldwide.

About Aspirational Districts Programme

- The Government of India has **launched** the 'Transformation of **Aspirational Districts**' initiative in **January 2018**.
- **Implementation: NITI Aayog anchors the programme** with support from Central Ministries and the State Governments.

- **Aim:** The 'Transformation of Aspirational Districts' Programme **aims** to expeditiously **improve the socio-economic status of 117 districts from across 28 states.**
- **Principles:** The **three core principles** of the programme are –
 - **Convergence** (of Central & State Schemes)
 - **Collaboration** (among citizens and functionaries of Central & State Governments including district teams)
 - **Competition** among districts.
- **Themes:** The programme focuses on **5 main themes** - Health & Nutrition, Education, Agriculture & Water Resources, Financial Inclusion & Skill Development, and Basic Infrastructure.
- **Real-time monitoring:** NITI Aayog in partnership with the Government of Andhra Pradesh has created a dashboard 'Champions of Change' for monitoring the **real-time progress** of the districts.
- **Ranking:** Districts are ranked through 'delta ranking' based on progress made on a real-time basis.
- Virudhunagar, Tamil Nadu achieved overall first rank.
- Simdega (Jharkhand), Chandauli (Uttar Pradesh), Sonbhadra (Uttar Pradesh) and Rajgarh (Madhya Pradesh) were found to have progressed the most since the beginning of the programme.
- **Achievements:** Under ADP previously neglected districts, including those in remote locations and those affected by Left Wing Extremism, 'have experienced more growth and development in the last three years than ever before.
- The programme has strengthened the technical and administrative capacities of the districts.

UNDP

- The **United Nations Development Programme (UNDP)** is the global development network of the United Nations.
- The UNDP is funded entirely by voluntary contributions from UN member states.
- It was established in 1965.

ONE NATION ONE RATION CARD

◎ CONTEXT:

The Supreme Court asked West Bengal and all other state governments to immediately implement the 'one nation one ration card' scheme amid the Covid-19 pandemic to support the migrant workers.

- It was recently announced that the free food grains will be given to the needy under 'Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)', but it would cause problems for those who do not have ration cards.

About One Nation One Ration Card Scheme

- It is an important citizen-centric reform.
- **Objective:** Its implementation ensures the availability of ration to beneficiaries under the National Food Security Act (NFSA) and other welfare schemes, especially the migrant workers and their families, at any Fair Price Shop (FPS) across the country.

- This technology-driven reform enables the migrant beneficiaries to get their entitled quota of food grains from any electronic point of sale (e-PoS) enabled fair Price Shops of their choice anywhere in the country.
- **Implementation:** The implementation of the One Nation One Ration Card (ONORC) plan comes under the Department of Food & Public Distribution, Ministry of Consumer Affairs.
- **Significance:** It enables the States to better targeting beneficiaries, eliminate bogus/duplicate/ineligible cardholders resulting in enhanced welfare and reduced leakage.
- **Government efforts:** For this the installation of electronic point of sale (e-PoS) devices are essential. Therefore, an additional borrowing limit of 0.25 percent of the Gross State Domestic Product (GSDP) is allowed to the States only on completion of both of the following actions:
 - Aadhar Seeding of all the ration cards and beneficiaries in the State
 - Automation of all the FPSs in the State.

Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY)

- It is a scheme as part of Atmanirbhar Bharat to supply free food grains to migrants and the poor.
- **Benefits:** During the period May - November 2021, more than 80 crore people will be provided 5 kg free wheat/rice per person/month along with 1 kg free whole chana to each family per month. This is over and above the regular monthly entitlements under National Food Security Act, 2013 (NFSA).
- **Eligibility**
 - ▶ Families belonging to the Below Poverty Line - Antyodaya Anna Yojana (AAY) and Priority Households (PHH) categories will be eligible for the scheme
 - ▶ Households headed by widows or terminally ill persons or disabled persons or persons aged 60 years or more with no assured means of subsistence or societal support
 - ▶ All primitive tribal households
 - ▶ Landless agriculture labourers
 - ▶ All eligible Below Poverty Line families of HIV positive persons

TIGRAY CRISIS: A NEW 'FAMINE' IN ETHIOPIA

◎ CONTEXT:

The hundreds of thousands in Tigray, Ethiopia are facing famine, and millions more are at risk.

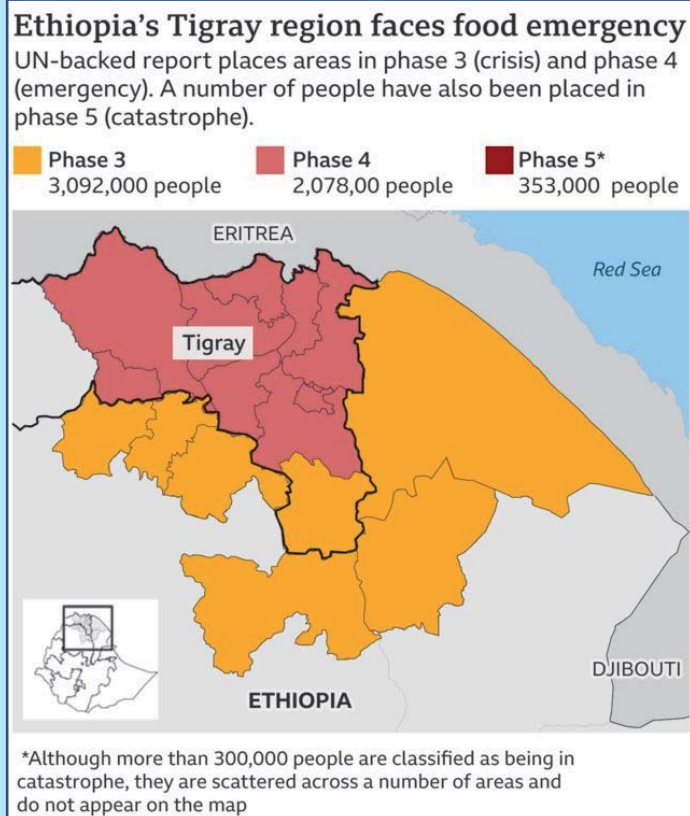
- The conflict that began between Ethiopia's federal government and the ruling party in the Tigray region has since blown up into a full scale crisis in the Horn of Africa.

About Tigray crisis

- The Tigray War is an ongoing armed conflict that began in November 2020 in the Tigray Region of Ethiopia.
- The war has spawned massacres, gang rapes and the widespread expulsion of people from their homes, and the United States has declared "ethnic cleansing" in western Tigray.
- Now, on top of those atrocities, Tigrayans face another urgent problem: hunger and starvation.

Tigray

- Tigray is Ethiopia's northernmost region.
- Bordering Eritrea, it is home to most of the country's estimated 7 million ethnic Tigrayans.
- The ethnic group, which accounts for about 6% of Ethiopia's population, have had an outsized influence in national affairs.



Famine conditions

- According to the IPC analysis, famine conditions in Tigray are in phase 5.
- Approximately 350,000 people out of Tigray's 6 million population are experiencing famine.
- This was the result of several factors rooted in the ongoing military conflict.
- Eritrean forces that joined the conflict in support of Ethiopia's PM Abiy Ahmed have been accused of destroying property, burning crops, destroying health facilities, and preventing farmers from ploughing their land.

Integrated Phase Classification

- The Integrated Food Security Phase Classification (IPC) is an innovative multi-partner initiative for improving food security and nutrition analysis and decision-making.

- By using the IPC classification and analytical approach, Governments, UN Agencies, NGOs, civil society and other relevant actors, work together to determine the severity and magnitude of acute and chronic food insecurity, and acute malnutrition situations in a country, according to internationally-recognized scientific standards.
- The IPC was originally developed in 2004 to be used in Somalia by FAO's Food Security and Nutrition Analysis Unit (FSNAU).

IPC Acute Food Insecurity Phase Descriptions (Area)

- **PHASE 1: Minimal:** Households are able to meet essential food and non-food needs without engaging in atypical and unsustainable strategies to access food and income.
- **PHASE 2: Stressed:** Households have minimally adequate food consumption but are unable to afford some essential non-food expenditures without engaging in stress-coping strategies.
- **PHASE 3: Crisis:** Households either:- Have food consumption gaps that are reflected by high or above-usual acute malnutrition; OR- Are marginally able to meet minimum food needs but only by depleting essential livelihood assets or through crisis-coping strategies.
- **PHASE 4: Emergency:** Households either:- Have large food consumption gaps which are reflected in very high acute malnutrition and excess mortality; OR- Are able to mitigate large food consumption gaps but only by employing emergency livelihood strategies and asset liquidation.
- **PHASE 5: Famine:** Households have an extreme lack of food and/or other basic needs even after full employment of coping strategies.
- Starvation, death, destitution, and extremely critical acute malnutrition levels are evident. (For Famine Classification, area needs to have extreme critical levels of acute malnutrition and mortality.)

DIHING PATKAI BECOMES THE 7TH NATIONAL PARK OF ASSAM

◎ CONTEXT:

The State government of Assam has notified DihingPatkai as the 7th National Park (NP). It also, recently, notified Raimona National Park, as its sixth.

About DihingPatkai National Park

- **Location:** It straddles eastern Assam's Dibrugarh and Tinsukia districts.
- **Rivers:** Short stretches of the **Dirak and BuriDihing** rivers passes through the park
- The park has a rich diversity of reptiles and mammals, including the tiger and clouded leopard.
 - It is the only sanctuary in India with **seven different species of wild cats** - tiger, leopard, clouded leopard, leopard cat, golden cat, jungle cat, and marbled cat.
 - Rare animals such as **Chinese pangolin**, flying fox, wild pig, sambar, barking deer, gaur, serow, and Malayan giant squirrels are also found here.
 - **Assamese macaque** is on the red list of **Near Threatened species**.
 - It has the highest concentration of the **rare endangered White Winged Wood Duck**.

- **Flora:** It is occupied by deciduous rainforest interspersed with semi-evergreen flora.

National parks in Assam

- Assam now has the third most National Parks in the country with 7 parks.

- ▶ Madhya Pradesh has 12 parks and nine in the Andaman and Nicobar Islands.
- The National Parks in the State are as follows-
 - ▶ Kaziranga
 - ▶ Manas
 - ▶ Nameri
 - ▶ Orang
 - ▶ Dibru-Saikhowa
 - ▶ Raimona National Park
 - ▶ Dihing Patkai

Raimona National Park

- Raimona adjoins the **Buxa Tiger Reserve in West Bengal to its west, Phipsoo Wildlife Sanctuary in Bhutan** in the north, and Manas National Park to the east.
- It forms the boundary **with the Sankosh River**.
- **Fauna:** Golden Langur is endemic to the park.

The other major animals are Asian elephant, Royal Bengal tiger, Clouded leopard, Indian gaur, Wild water buffalo, Spotted deer, Hornbill.

GHARIAL CONSERVATION EFFORTS IN ODISHA

◎ CONTEXT:

The Mahanandi Wildlife Division in Odisha initiated an effort of state government to conserve Gharials in Mahanadi river basin.

- The rewards will be given for rescuing gharials, a critically endangered crocodile species.

About the Gharial and its conservation

● Basic Information

- Gharials are large and shy reptiles.
- Gharials thrive on small fish.
- Their prey base was eroding due to over-fishing by local fisherfolk.
- Gharial prefers deep fast flowing rivers.
- Sand and rock outcrops are preferred basking sites and these animals show considerable site fidelity.

Mahanadi Wildlife Division

- It was created in **1999 by the Government of Orissa**.
- The whole division is a part of **Satkosia Tiger Reserve**.

Fauna: Tiger, Leopard, Striped hyena, Wild dog, Indian Wolf, Sloth bear, Sambar, Civet Cat, Fishing cat, Leopard cat, Chousingha, Flying Squirrel, Wild boar, Gaur migratory population of Elephants, Gharial and Mugger crocodile in the Mahanadi River, hornbills, Hill mynas, Brahamany ducks and different varieties of both resident and migratory birds.

Conservation Status

- It is listed in **Schedule I of Wildlife (Protection) Act, 1972** and as **Critically Endangered on IUCN Red list**.

Threats:

- Their habitat is threatened because of human encroachment and fishing activities.
- They are genetically weaker than salt water crocodiles and muggers.
- Gharials caught accidentally in fishing nets.

Mahanadi River

- The Mahanadi is a major river in East Central India.
- Mahanadi was called the sorrow of odisha but the Hirakud Dam has changed the situation of flood.
- The river flows through the states of Chhattisgarh and Odisha.
- **Tributaries**
- **Left:** Seonath, Mand, Ib, Hasdeo
- **Right:** Ong, parry, Jonk, Telen

CHIME TELESCOPE

◎ CONTEXT:

Canadian Hydrogen Intensity Mapping Experiment (CHIME) have assembled the largest collection of fast radio bursts (FRBs).

- Researchers at the Pune-based Tata Institute for Fundamental Research (TIFR) and the National Centre for Radio Astrophysics (NCRA) achieved it.

About Chime

- **Stationary:** It is a novel radio telescope that has no moving parts.
 - It is located in British Columbia, Canada.
- **First exploration:** The telescope has detected more than 500 new fast radio bursts in its first year of operation itself, between 2018 and 2019.
- **Tasks:** It was originally conceived to map the most abundant element in the universe, that is Hydrogen.
 - CHIME has also discovered new "Fast Radio Bursts" and for monitoring many pulsars on a daily basis.

- **Working:** This telescope is optimized to have a high "mapping speed", which requires a large instantaneous field of view (~200 square degrees) and broad frequency coverage (400-800 MHz).
- The digitized signals collected by CHIME will be processed to form a 3-dimensional map of hydrogen density, which will be used to measure the expansion history of the universe.

What are fast radio burst (FRB)?

- The first FRB was spotted in 2007.
- A **fast radio burst (FRB)** is a transient radio pulse of **electromagnetic spectrum**.
- It blazes out from a fraction of a **millisecond to a few milliseconds**.
- It is **caused by some high-energy astrophysical** process not yet understood.
- Most FRBs are extragalactic.
- The first Milky Way FRB was detected by the CHIME radio telescope in April 2020.

ENVISION MISSION

◎ CONTEXT:

The European Space Agency (ESA) announced that it has selected EnVision as its next orbiter that will visit Venus in the 2030s.

About Envision

- EnVision is an ESA led mission with contributions from NASA.
- It is likely to be launched sometime in the 2030s.
 - The earliest launch opportunity for EnVision is 2031, followed by 2032 and 2033.
- It will be launched on an Ariane 6 rocket.
 - Ariane 6 is designed with two core stages both powered by liquid hydrogen-liquid oxygen engines.
- **Components of the mission:**
 - Venus Synthetic Aperture Radar(VenSAR)
 - Venus Subsurface Radar Sounder(SRS)
 - Venus Spectroscopy Suite(VenSpec)
- It will study the planet's atmosphere and surface, monitor trace gases in the atmosphere and analyse its surface composition.
- A radar provided by NASA will help to image and map the surface.

What are the key questions behind the exploration of Venus?

- The reason behind its hot stage.
- Catastrophic greenhouse effect on Earth.
- Is Venus still geologically active?
- Could it have once hosted an ocean and even sustained life?
- What lessons can be learned about the evolution of terrestrial planets in general, as we discover more Earth-like exoplanets?

What do we know about Venus?

- Venus is the second-brightest object in the sky after the moon.
- It appears bright because of its thick cloud cover that reflects and scatters light.
- Venus is called the Earth's twin because of their similar sizes, the two planets have significant differences between them.
- The planet's thick atmosphere traps heat and is the reason that it is the hottest planet in the solar system, despite coming after Mercury, the closest planet to the Sun. Surface temperatures on Venus can go up to 471 degrees Celsius, which is hot enough to melt lead, NASA notes.
- Venus moves forward on its orbit around the Sun but spins backwards around its axis slowly. This means on Venus the Sun rises in the west and sets in the East.
- Venus also does not have a moon and no rings.

What other nations are doing?

- Recently, NASA has also selected two missions, DAVINCI+ and VERITAS, to the planet Venus between 2028-2030.
- ESA earlier launched a mission to Venus called 'Venus Express' (2005-2014).
- Japan's Akatsuki spacecraft has also been studying the planet's atmosphere since 2015.
- NASA's Magellan Mission studied Venus from 1990-1994.

NEW WASTE WATER TREATMENT TECHNOLOGY

◎ CONTEXT:

A new wastewater treatment technology is being developed that would reduce the high costs of existing technologies for handling oily wastewater generated at their source points.

About the technology

- The new technology consists of an affordable electric field-assisted membrane separation device for oily wastewater treatment.
- It has been built with support from the Advanced Manufacturing Technologies programme of the Department of Science & Technology (DST).
- This technology uses a combination of Electrocoagulation and Electroflotation Enhanced Membrane Module (ECEMM) techniques for waste water treatment.
- So far, the separation technology running in different sectors for treating such oily wastewater involves the installation of an electrolytic cell or DAF followed by membrane unit.
- However, installing two separate units requires a high footprint area compared to the present unit, where two-unit operations are being assimilated in a single unit.

What is Electrocoagulation?

- It is a broad-spectrum treatment technology that removes total suspended solids (TSS), heavy metals, emulsified oils, bacteria and other contaminants from water.

- This technique that uses electrical charge for changing the particle surface charge, allowing suspended matter to form aggregates.

What is Electroflotation?

- Electroflotation is the separation of suspended particles from water using hydrogen and oxygen bubbles generated by passing electricity through water.

Some of the Indian Government Steps

- The Government has set a growth target for the manufacturing sector from 16% of GDP to reach 25% of GDP by 2025.
- The National Manufacturing Policy and the emphasis on "Make in India" is a powerful strategy for economic development.
- In accordance with this objective, DST has initiated this program for developing Advanced Manufacturing Technologies in October 2015.
- Five thrust areas were selected for developing novel manufacturing technologies:
 - Nano materials & surfaces
 - Robotics & automation
 - Precision manufacturing
 - Manufacturing process of Pharmaceuticals Bio manufacturing
 - Advanced forming & near net shaped processing



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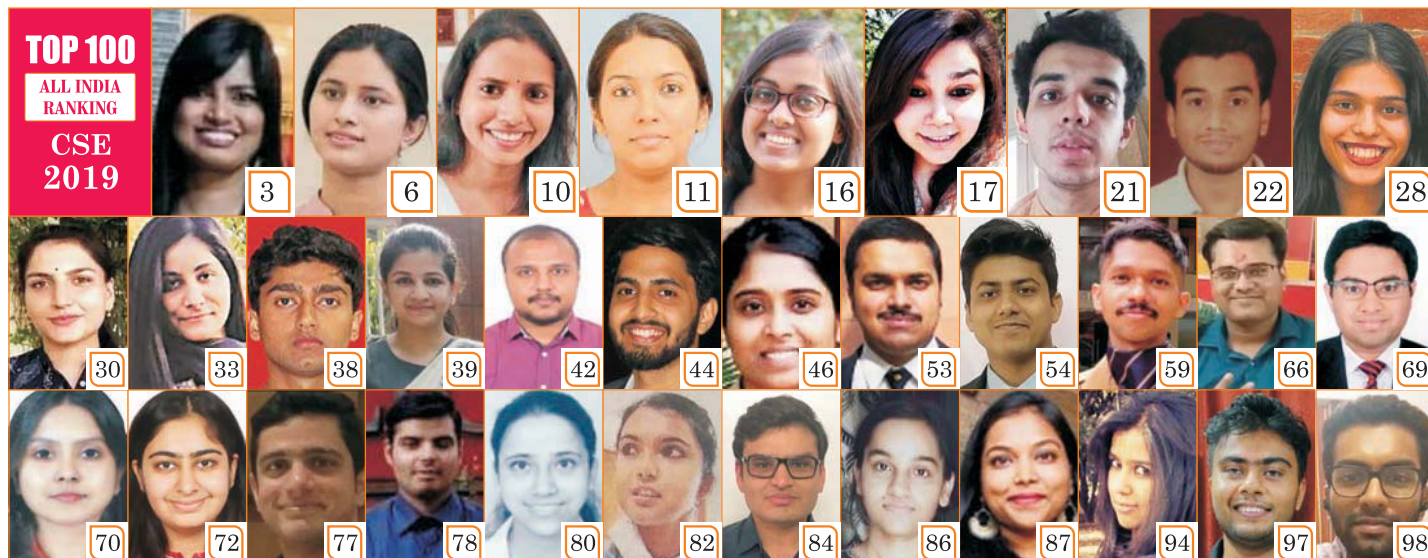
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