

**INTERNATIONAL RELATIONS****India-Russia Bilateral Relations: Modi-Putin Discuss 'Special Strategic' Ties, Future Roadmap****Why in News?**

- The Indian PM and Russian President had a good conversation on various regional and global issues, including Russia's Presidency of the BRICS in 2024.
- They discussed a range of aspects related to the "special and privileged strategic partnership" between the two countries.

**Overview of India - Russia Bilateral Relations**

- Russia has been a longstanding and time-tested partner for India and development of India-Russia relations has been a key pillar of India's foreign policy.
- Since the signing of the "Declaration on the India-Russia Strategic Partnership" in 2000, India-Russia ties have acquired a qualitatively new character with enhanced levels of cooperation in almost all areas of the bilateral relationship.
- During the visit of the Russian President to India in 2010, the Strategic Partnership was elevated to the level of a "Special and Privileged Strategic Partnership."
- During his recent visit to Russia, the Indian Foreign Minister said that India-Russia relations remain "very steady, very strong and mutually beneficial" and are based on "strategic convergence" and "geopolitical interests".

**Different Areas of Cooperation in the India - Russia Bilateral Relations**

- Political relations:
  - The India-Russia Intergovernmental Commission (IRIGC) has two divisions – the Trade, Economic, Scientific, Technological and Cultural Cooperation and the Military & Military-Technical Cooperation.
  - In 2021, a new dimension to the bilateral cooperation was added with the first 2+2 Dialogue (Foreign and Defence Ministers of both countries) taking place.
  - Both countries remain in touch at multilateral engagements as well. For example, they met on the sidelines of the East Asia Summit in Jakarta, BRICS in South Africa, SCO in Goa and G20 in New Delhi in 2023.
- Trade and Economic relations:
  - In April-December 2022, the bilateral trade reached an all-time high of \$45 billion with a trade deficit of \$35bn in Russia's favour.
  - Major items of export from India include pharmaceuticals, organic chemicals, electrical machinery and mechanical appliances, iron & steel, etc.
  - Major items of import from Russia include oil and petroleum products, fertilisers, mineral resources, precious stones and metals, vegetable oils, etc.
- Defence and security cooperation:
  - India has longstanding and wide-ranging cooperation with Russia in the field of defence and is guided by the Agreement on the Programme for Military Technical Cooperation.
  - The Agreement for 2021-2031 was signed during the inaugural meeting of India-Russia 2+2 Dialogue which was held in Delhi in 2021.
  - Bilateral projects include the supply of S-400, licensed production of T-90 tanks and Su-30 MKI, supply of MiG-29 and Kamov helicopters, production of Ak-203 rifles in India and BrahMos missiles, etc.
- Science and technology cooperation:
  - After India's independence, the erstwhile Soviet Union's assistance was crucial to the establishment of Bhilai Steel Plant, Indian Institute of Technology (Bombay) and India's space program.
  - Today, India and Russia work together on basic sciences, materials science, mathematics and cutting-edge areas like
    - India's manned spaceflight program (Gaganyaan),
    - Nanotechnologies and
    - Quantum computing.
  - India's only nuclear power plant established with another country (Russia) is the Kudankulam Nuclear Plant in Tamil Nadu.
- Education: Education is a major source for the Indian population in Russia. As per most recent data, there are around 25,000 Indian nationals of which a majority are Indian students studying medicine.

- Cultural cooperation:
  - In recent times, Indian cinema has begun to make a gradual comeback with more frequent film screenings across Russia.
  - Yoga is immensely popular across Russia as well with very enthusiastic and large gatherings of participants each year on International Day of Yoga.

**Some Recent Challenges for India-Russia Ties**

- India and Russia have an annual summit at the leaders' level, where the Indian PM and the Russian President visit each other's country every alternate year.
- However, after the war in Ukraine broke out, the Indian PM did not travel to Russia for the annual summit in 2022 and Putin could not come for the G20 summit in Delhi in September last year.
- While it is the Indian PM's turn to visit Russia for the annual summit, the visit didn't take place last year. The last summit was held in 2021 in Delhi, during Putin's visit.

**News Summary Regarding Modi-Putin Discussions on Bilateral Ties**

- The phone call between the two leaders comes a day after a meeting of the national security advisors of almost 80 countries in Davos to discuss a peace formula for Ukraine.
- In a post on X, Modi said he and Putin also agreed to chalk out a roadmap for future initiatives and expressed interest in further intensifying mutually beneficial bilateral ties.
- Both leaders emphasised their "readiness to closely coordinate their approaches to the BRICS agenda", adding that "India intends to help implement the goals and objectives of Russia's chairmanship".
- The leaders also touched on several other international issues, including the situation around Ukraine. During his conversations with Putin, Modi has said that it is not a time of war.

**SOCIAL ISSUES****NITI Aayog's Discussion Paper - Multidimensional Poverty in India since 2005-06****Why in news?**

- As per the NITI Aayog's Discussion Paper 'Multidimensional Poverty in India since 2005-06', 24.82 crore people escaped multidimensional poverty in last nine years.
- The National Multidimensional Poverty Index (MPI) by Niti Aayog measure the multidimensional poverty in India.

**Multidimensional Poverty**

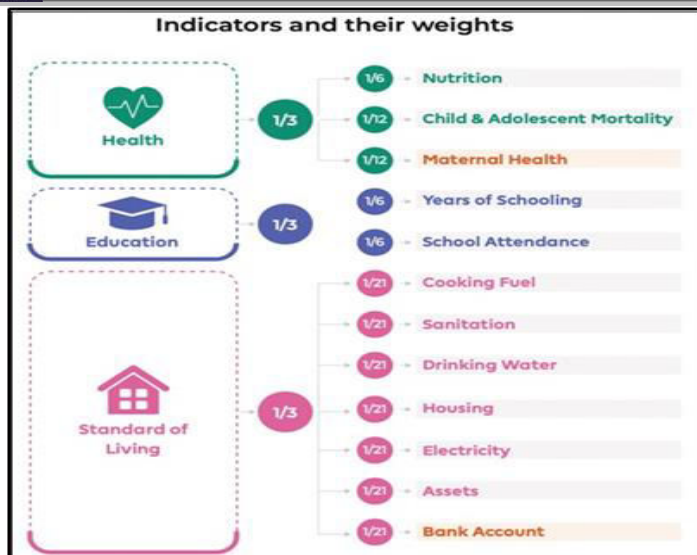
- A person who is poor can suffer multiple disadvantages at the same time – for example they may have poor health or malnutrition, a lack of clean water or electricity, poor quality of work or little schooling.
- Focusing on one factor alone, such as income, is not enough to capture the true reality of poverty.
- Multidimensional Poverty is a measure of poverty that captures deprivations in education and access to basic infrastructure in addition to income or consumption at the \$2.15 international poverty line (as per World Bank).
  - World Bank defines the international poverty line at USD 2.15 (in 2017 purchasing power parity terms) daily to measure monetary value.

**National Multidimensional Poverty Index (MPI)**

- MPI has been used by the United Nations Development Programme (UNDP) in its flagship Human Development Report since 2010.
- In this context, NITI Aayog had published the first edition of national Multidimensional Poverty Index for India in 2021.
- Purpose –
  - A national MPI statistic for a country is tailored to the national priorities and therefore, countries choose their own set of dimensions, indicators, weights, and cut-offs, according to their plans and contexts.
- The report presents an in-depth analysis of the headcount ratio and intensity of multidimensional poverty at the national, State/UT, and district levels.
- The first report was based on the reference period of 2015-16 of the National Family Health Survey (NFHS) - 4.

**MPI Parameters & Methodology**

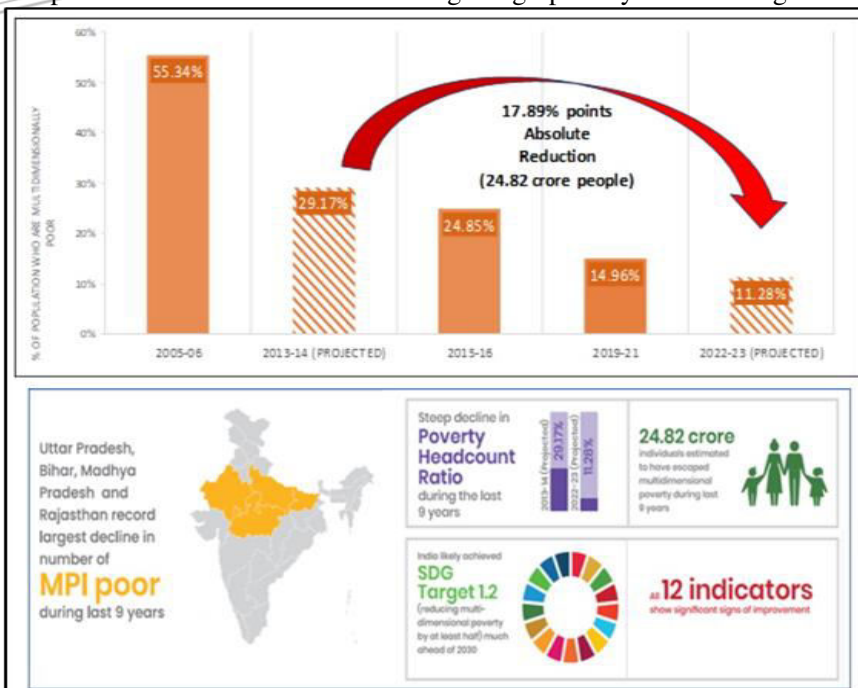
- The Index is based on the Alkire-Foster (AF) methodology and has three equally weighted dimensions –
- These three dimensions are represented by 12 indicators as given in the fig:



- The index is calculated by first setting the deprivation cut-offs for each indicator, i.e., the level of achievement considered normatively sufficient for an individual to be considered not deprived in an indicator.
  - For example, the individual has completed at least six years of schooling. Such a cut off would be applied to determine whether the individual is deprived in each indicator.
- Weights are attached to each indicator and a composite metric is then used to calculate the index.

**Key highlights of the report**

- Significant decline in multidimensional poverty in India
  - From 29.17% in 2013-14 to 11.28% in 2022-23 i.e. a reduction of 17.89 percentage points.
- States with largest decline
  - Uttar Pradesh topped the list with 5.94 crore people escaping poverty followed by Bihar at 3.77 crore and Madhya Pradesh at 2.30 crore.
- India likely to achieve SDG Target 1.2 (reducing multidimensional poverty by at least half) well before 2030.
- Government’s goal
  - Government has a goal to bring down multidimensional poverty to below 1% and all efforts are being made in that direction.
  - The report said India is all set to reach single-digit poverty levels during 2024.



- Report highlighted noteworthy initiatives
  - Initiatives like Poshan Abhiyan and Anemia Mukht Bharat have significantly enhanced access to healthcare facilities, leading to a substantial decrease in deprivation.
  - Operating one of the world's largest food security programs, the targeted public distribution system (PDS) under the National Food Security Act covers 81.35 crore beneficiaries, providing food grains to rural and urban populations.

**PRELIM FACTS****1. Kolam Tribes**

- The Central government will extend basic facilities to the endangered Kolam tribe under the Jan Jati Adivasi Nyaya Maha Abhiyan, with a focus on health and education.

About Kolam Tribes:

- Kolam tribes, also known as Kolamboli, Kulme and Kolmi, occupy a major portion of Madhya Pradesh.
- The main concentration of this tribe is on the plains and in the mountainous region.
- These tribal groups are reckoned as scheduled tribes and apart from Madhya Pradesh they reside in some parts of Maharashtra and Andhra Pradesh.
- They are listed as Particularly Vulnerable Tribal Group (PVTG) in the state of Maharashtra and Andhra Pradesh.
- History:
  - Around the twelfth century, the Kolam served as priests for the Gond, representing some of their important gods.
  - It is generally accepted that the Kolam descended from the original population in the area.
  - Since they now live near the Gond, they have adopted much of the Gond lifestyle.
- The Kolam people are divided into different clans, like Chal Deve, Pach Deve, Saha Deve, and Sat Deve.
- Marriages between the same clans are not permissible.
- The Kolams use the name of their clans as their surnames.
- Their society is patrilineal, meaning that the line of descent is traced through the males.
- The Kolam are mainly farmers and forest workers. In times past, they used shifting cultivation on the hill slopes. Today, they primarily live as settled farmers and use plow cultivation.
- They speak a Dravidian language called Kolami, and nearly all of the adults also speak Marathi, Telugu, or Gondi.
- They also speak other languages like Marathi, Telugu or Gondi.
- For writing, this Kolma tribal community uses the famous Devnagari script.

**2. Pakke Paga Hornbill Festival**

- The 9th edition of the Pakke Paga Hornbill Festival (PPHF), a state festival of Arunachal Pradesh, will take place at Seijosa in the Pakke Kessang district from January 18-20, 2024.

About Pakke Paga Hornbill Festival:

- The first-ever PPHF was held in 2015.
- The aim was to recognise the role played by the Nyishi tribal group in conserving hornbills in Pakke Tiger Reserve (PTR).
- Other objectives were to raise alternative sources of income for the region and to create awareness in the rest of India about the wonders of PTR and its surrounding areas.
- This year, the festival's theme is 'Domutoh Domutoh, Paga hum Domutoh'. It translates to 'Let Our Hornbills Remain' in the Nyishi language.
- This year's festival aims to underscore the critical need for preserving these iconic birds.

Key points about Pakke Tiger Reserve:

- It is located in the East Kameng district of Arunachal Pradesh.
- It is surrounded by the Tenga Reserve Forest to the North, Doimara Reserve Forest on the West, Nameri National Park and Tiger Reserve (Assam) on the South.
- The landscape has high species diversity and endemism as it forms the transition zone between the Indian and Malayan eco-regions.
- It is situated North of the river Brahmaputra in the transition zone between the Assam plains and the hilly forests of Arunachal Pradesh.
- Vegetation: It consists of tropical evergreen and semi-evergreen forest.



- Flora: Polyalthia simiarum, Pterospermum acerifolium, Sterculia alata, Stereospermum chelonoides, Ailanthus grandis and Duabanga grandiflor. About eight species of bamboo occur in the area.
- Fauna: Tiger, Elephant, predators like Leopard and Clouded leopard etc.

### 3. **e-SAKSHI Application**

- Recently, the Minister of State (Independent Charge) of the Ministry of Statistics and Programme Implementation (MoSPI) launched the MPLADS e-SAKSHI Mobile Application.

About e-SAKSHI Application:

- It was launched for revised fund flow procedure under Members of Parliament Local Area Development Scheme (MPLAD) Scheme.
- It will bring forth a myriad of benefits, revolutionizing the way Members of Parliament engage with and manage development projects in their constituencies.
- It would offer convenience and accessibility, allowing MPs to propose, track, and oversee the projects at their fingertips.
- This real-time access enhances decision-making processes, enabling swift responses to emerging needs or issues.
- The application will streamline the communication between MPs and relevant authorities, facilitating a more efficient exchange of information.
- It will promote transparency by providing MPs with instant updates on the status and progress of their proposed projects.
- It has the features for budget management, ensuring MPs can monitor expenditures.

Key points about MPLAD Scheme:

- It was first introduced in 1993.
- Initially, the Ministry of Rural Development was the Nodal Ministry for this scheme. In October, 1994 this scheme was transferred to the Ministry of Statistics and Programme Implementation.
- The Scheme is fully funded by the Government of India under which funds are released in the form of grants-in-aid directly to the district authorities.
- The funds released under the Scheme are non-lapsable, i.e., the entitlement of funds not released in a particular year is carried forward to the subsequent years, subject to eligibility.
- At present, the annual entitlement per MP/ constituency is 5 crore rupees.
- The role of the Members of Parliament is limited to recommend works. Thereafter, it is the responsibility of the district authority to sanction, execute and complete the works recommended within the stipulated time period.
- The elected Lok Sabha Members can recommend works in their respective constituencies.
- The elected members of the Rajya Sabha can recommend works anywhere in the state from which they are elected.
- Nominated Members of the Parliament can recommend works for implementation, anywhere in the country.
- MPLADS works can be implemented in areas affected by natural calamities like floods, cyclone, hailstorm, avalanche, cloudburst, pest attack, landslides, tornado, earthquake, drought, tsunami, fire and biological, chemical, radiological hazards, etc.
- In order to accord special attention to the development of areas inhabited by Scheduled Castes (SCs) and Scheduled Tribes (STs), 15 per cent of MPLADS funds are to be utilized for areas inhabited by SC population and 7.5 per cent for areas inhabited by ST population.

### 4. **African dream herb**

- A dying traditional game, given a fresh lease of life at the ongoing Karbi Youth Festival (KYF) in central Assam's Karbi Anglong district, has fuelled a drive for conserving a creeper known as the African dream herb.

About African dream herb:

- A perennial climbing vine that is used by African traditional healers to induce vivid dreams that enables them to communicate efficiently with their ancestors.
- Common names: Giant sea bean, African dream herb, snuff box and Entada rheedii.
- Distribution and habitat: It is indigenous to Africa, Asia, Australia and Madagascar. It grows in tropical lowlands, along the coastline and river banks, in woodland, thickets and riverine rain forests.
- Uses

- A paste made from the leaves, bark and roots is used to clean wounds, treat burns and heal jaundice in children.
- Tea made from the whole plant is used to improve blood circulation to the brain and heal the after-effects of a stroke.
- The bark is used to treat diarrhoea, dysentery and parasitic infections.
- This creeper yields a dark brown and spherical seed, almost the size of a human patella or kneecap, used to play 'Hambi Kepathu'. Associated with the origin of the Karbi community.

What is Hambi Kepathu?

- It is also known as Simrit in some parts of Karbi Anglong, is played on three rectangular courts by two teams comprising three members each.
- Each member of a team has to place a 'hambi', or the glazed creeper seed, vertically on the midpoint of the boundary line of his court for a player of the rival team to hit with his 'hambi'.
- Hambi Kepathu, whose name is derived from the first syllables of the names of a Karbi sister-brother duo, is a male-only game like other traditional Karbi games such as 'Pholong' (spinning top), 'Thengtong Langvek' (torch swimming), and 'Kengdongdang' (bamboo stilt race).

### 5. Guru Gobind Singh

- Guru Gobind Singh Jayanti, or the Prakash Parv of the tenth Sikh Guru, is celebrated on January 17 this year.

About Guru Gobind Singh:

- He was the 10th and last human Guru of the Sikhs.
- Born as Gobind Rai on December 22, 1666, in Patna, Bihar, Guru Gobind Singh was the son of the ninth Guru of Sikhism, Guru Tegh Bahadur.
- He became the spiritual and temporal leader of the Sikhs on November 11, 1675, at the age of nine, following the martyrdom of his father, Guru Tegh Bahadur, at the hands of the Mughal emperor Aurangzeb in 1675.
- He was renowned as a warrior, a poet, and a prophet.
- He is fondly remembered by Sikhs as a defender of the faith and a champion of equality and justice.
- Among his notable contributions to Sikhism are founding the Sikh warrior community called Khalsa in 1699.
  - He introduced the Five Ks, the five articles of faith that Khalsa Sikhs wear at all times. These are Kesh: uncut hair, Kangha: a wooden comb, Kara: an iron or steel bracelet worn on the wrist, Kirpan: a sword, and Kacchera: short breeches.
- Throughout his life, he engaged in numerous battles against the Mughal Empire and their allies, totaling 21 battles.
  - Some of the notable battles include the Battle of Bhangani, the Battle of Nadaun, the Battle of Anandpur, the Battle of Chamkaur, the Battle of Muktsar, and the Battle of Khidrana.
- He authored numerous literary works in various languages. Among his famous works are Jaap Sahib, the Tav-Prasad Savaiye, and the Benti Chaupai.
- He further codified Sikh law, wrote martial poetry and music, and was the reputed author of the Sikh work called the Dasam Granth ("Tenth Volume").
- Guru Gobind Singh proclaimed that he was the last of the personal Gurus. From that point forward, the Sikh Guru was to be the holy book, the Guru Granth Sahib (Sikh Holy Book).
- He was assassinated in 1708, at the age of 41.
- His birth anniversary is called Guru Gobind Singh Jayanti, and his death anniversary is called Guru Gaddi Diwas.

### ANSWER WRITING

**Mention the challenges that India might witness in decarbonising its power sector. Also, suggest the steps that need to be taken to ensure a smooth transition towards clean energy.**

According to a report titled "Global Carbon Budget", India continues to be the fourth largest global emitter, after China (31 per cent), the US (14 per cent), and the European Union. As India's coal-based thermal power sector is responsible for one-third of India's GHG emissions, it needs to decarbonise its power sector in order to realize the idea of net-zero emissions.

**Challenges in decarbonising Power Sector in India:**

- Grid reliability: Solar and wind energy alone will not suffice to provide reliable and affordable energy for everyone. As the time of the day and the weather conditions continuously affect the

production of power. Thus production of renewable energy can be very high at some points in time and low under other conditions. Therefore, the power generated when it is needed may not be sufficient or may not match the demand.

- Geopolitical risks: According to the International Energy Agency, the demand for critical minerals like lithium, nickel and rare earth elements, required for clean-energy production technologies, is likely to increase by up to 3.5x by 2030. This jump implies that within a short time span new mines and processing facilities needs to be developed in China, Indonesia, Africa, and South America which control 50-100% of the current global extraction and processing capacities.
- Lack of Adequate Finance: Electricity production which is by far the largest source of carbon emissions accounts for 5.2% of outstanding credit, but only 17.5% of this lending goes to renewables. Moreover, there is a shortage of experts in India's financial institutions who have the expertise to appropriately advise the institutions on such a transition.
- High Dependence on Coal: Coal-fired power plants account for nearly 50% of the country's electricity generation. The analysts have pointed out that the country will phase out coal only when it is sure the transition won't cause power disruptions, with renewable energy storage capacity currently still weak and expensive.
- Underutilisation: Renewable energy-rich states for instance, even the top performer Karnataka has utilized only 11% of its total renewable energy potential. On account of issues such as land conflict, technology upgrades, and lack of transmission infrastructure etc. Also, the states are focusing on large-scale renewable power projects, but are ignoring other possibly viable options, such as rooftop solar, small hydel plants, etc.

**Way Forward:**

- Use of smart grids: AI-driven technologies could forecast energy data for power production and load; this enables optimal grid management by the use of analytics. This way, the equipment's health is closely monitored.
- Enhancing global mineral security: Council On Energy, Environment and Water, has argued that the G20 group of nations should support investments in development of new exploration and mining technologies and should examine the creation of a strategic stockpile of critical minerals. Furthermore, it should invest in focused R&D efforts to improve existing technologies from a resource-efficiency perspective.
- Adequate Finance: Centre owned financial institutions, such as the Indian Renewable Energy Development Agency Limited (IREDA) and the Power Finance Corporation (PFC), should provide adequate finance in order to ensure smooth transition towards renewable energy.
- Improving storage infrastructure: In order to reduce dependence on coal, India needs to invest in renewable energy storage technologies. For this apart from immobile lithium-ion batteries we need to promote the use of 'moving' batteries involving energy storage in electric vehicles using V2G technology and Virtual transmission technologies that come into play concerning specially configured battery systems.
- Address underutilization: In order to enhance the state's clean energy transition a robust transmission infrastructure needs to be put in place. Apart from focusing on large-scale projects the states should also adopt other viable options like rooftop solar, small hydel plants, etc.

**Conclusion**

In order to realize the SDG 7 i.e., “to ensure access to affordable, reliable, sustainable and modern energy for all”, India needs to create enabling environments for investors and RE developers by building institutional capacity, developing robust stakeholder processes, and enhancing sector transparency. Lastly, we need to pay attention to issues such as affordability, service quality, and environmental impacts.

**MCQs**

- |   |  |
|---|--|
| <p>1. Consider the following pairs:<br/>Military Exercise Participating Country</p> <ol style="list-style-type: none"> <li>1. Ayutthaya India – Thailand</li> <li>2. SALVEX India – USA</li> <li>3. Nomadic Elephant India – Mongolia</li> </ol> <p>How many of the pairs given above are correct?</p> <p>(a) Only one pair<br/>(b) Only two pair<br/>(c) All three pairs</p> | <p>(d) None</p> <p>2. ‘Invasive Species Specialist Group’ (that develops Global Invasive Species Database) belongs to which one of the following organizations?</p> <p>(a) The International Union for Conservation of Nature<br/>(b) The United Nations Environment Programme</p> |
|---|--|

- (c) The United Nations World Commission for Environment and Development  
(d) The World Wide Fund for Nature
3. Which of the following is the objective of the 'Operation Sarvashakti' launched by the Indian army?  
(a) To curb drug trafficking across the border  
(b) To counter the insurgencies of Northeast India  
(c) It is aimed at facilitating the return of Indian nationals affected by the Israeli-Palestinian conflict.  
**(d) To counter Pakistan's attempt to revive terrorism in Jammu and Kashmir**
4. Consider the following statements:  
1. Discover transient black holes by detecting their rare X-ray flares.  
2. Locate the electromagnetic sources of gravitational waves.  
3. Study X-ray transients like gamma-ray bursts, supernovae, and flares from other stars.  
How many of the above are the objectives of Einstein Probe (EP) satellite, recently launched by China?  
(a) Only one (b) Only two  
**(c) All three** (d) None
5. With reference to green hydrogen, consider the following statements:  
1. It can be used directly as a fuel for internal combustion.  
2. It can be blended with natural gas and used as fuel for heat or power generation.  
3. It can be used in the hydrogen fuel cell to run vehicles.  
How many of the above statements are correct?  
(a) Only one (b) Only two  
**(c) All three** (d) None
6. Consider the following statements about Particularly Vulnerable Tribal Groups (PVTGs) in India:  
1. PVTGs reside in 18 States and one Union Territory.  
2. A stagnant or declining population is one of the criteria for determining PVTG status.  
3. There are 95 PVTGs officially notified in the country so far.  
4. Irular and Konda Reddi tribes are included in the list of PVTGs  
Which of the statements given above are correct?  
(a) 1, 2 and 3 (b) 2, 3 and 4  
(c) 1, 2 and 4 **(d) 1, 2, 3 and 4**
7. Which of the following are the objectives of 'National Nutrition Mission'?  
1. To create awareness relating to malnutrition among pregnant women and lactating mothers.  
2. To reduce the incidence of anaemia among young children, adolescent girls and women.  
3. To promote the consumption of millets, coarse cereals and unpolished rice.  
4. To promote the consumption of poultry eggs.  
Select the correct answer using the code given below:  
**(a) 1 and 2 only**  
(b) 1, 2 and 3 only  
(c) 1, 2 and 4 only  
(d) 3 and 4 only
8. With reference to Foreign Direct Investment in India, which one of the following is considered its major characteristic?  
(a) It is the investment through capital instruments essentially in a listed company.  
**(b) It is a largely non-debt creating capital flow.**  
(c) It is an investment which involves debt-servicing.  
(d) It is the investment made by foreign institutional investors in the Government securities.
9. With reference to Swachh Survekshan Awards, consider the following statements:  
1. Swachh Survekshan is an annual survey of cleanliness, hygiene and sanitation in cities and towns across India.  
2. Community involvement and behavioral change in waste management are one of the few focus areas for the evaluation of cities under the Swachh Survekshan.  
3. Swachh Survekshan is conducted by the Ministry of Housing and Urban Affairs (MoHUA) with Quality Council of India (QCI) as its implementation partner.  
Which of the statements given above are correct?  
(a) 1 and 2 only  
(b) 2 and 3 only  
**(c) 1 and 3 only**  
(d) 1, 2 and 3
10. Consider the following statements:  
1. The tableaux at the Republic Day Parade reflect the country's cultural splendour and diversity.  
2. The selection process of tableaux for the Republic Day parade is carried out by the Ministry of Home Affairs.  
Which of the statement(s) given above is/are correct?  
**(a) 1 only** (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2