

ECONOMY

❖ India's UPI push

- > CONTEXT: On January 10, the National Payments Corporation of India (NPCI) paved the way for international (phone) numbers to be able to transact using UPI. A day later, the Union Cabinet chaired by Prime Minister Narendra Modi approved an incentive scheme for promotion of RuPay debit Cards and low-value BHIM-UPI transactions (person-to-merchant) in FY 2022-23. The scheme has an outlay of Rs 2,600 crore.
- These measures could prove significant for the UPI-based payment ecosystem which has largely witnessed a sequential rise in 2022.
- What about international on-boarding?
- In a nutshell, non-resident accounts such as non-resident external accounts (NRE) and non-resident ordinary accounts (NRO), having international numbers, will now be allowed into the UPI payment system. NPCI had allowed UPI transactions to and from NRO/NRE accounts linked to Indian numbers back in October 2018.
 - ✓ NRE accounts are those used by non-residents to transfer earnings from foreign soil to India while NRO accounts are used to manage income earned in India by non-residents.
- At present, users from ten countries will be able to avail the facility—Singapore, Australia, Canada, Hong Kong, Oman, Qatar, the United States of America, Saudi Arabia, United Arab Emirates, United Kingdom and Hong Kong. More inclusions are likely in the future.
- All members of the interface, such as banks and payments platforms, have till April 30 to comply with the guidelines.
- The development would allow NRIs to use the payment method for making utility bill payments for their families (or themselves) in India, make purchases from e-commerce or online platforms and make payments to physical merchants who accept UPI QR based payments when they travel to India.
- Addressing the infrastructural and technological changes required to support such payments
- Currently, all the internal systems as well as ecosystem players such as banks, NPCI, etc only understand
 India-based mobile numbers for UPI transactions. With this enablement, a significant number of systems
 will need to start understanding the same.
- This might also require changes in integration with SMS service providers and international telecom networks.
- What incentives are being offered?
- Under the scheme, acquiring banks will be given financial incentives for promoting point-of-sale and e-commerce transactions using RuPay debit Cards and low-value BHIM-UPI transactions (person-to-merchant) for the ongoing financial year. Acquiring banks are those which install and manage apoint-of-sale terminal (or the hardware system required to process payments) at retail outlets. The issuing bank is responsible for issuing the card to the customer.
- This scheme has been formulated in compliance with Finance Minister's FY 2022-23 budgetary endeavour to continue financial support for digital payments, focusing on promoting the use of payment platforms that are economical and user-friendly.
- The incentive scheme would reduce cash-carrying and storage risk. The microfinance set-ups where cash in transit was huge and caused frauds and thefts have started seeing benefits emanating from digitisation, in terms of cost of cash transactions.
- It would also eliminate the costs associated with small denomination notes and coins, among other things.
- ➤ What is the discussion on Merchant Discount Rate (MDR)?
- Merchant Discount Rate (MDR or Merchant Service Fee) is the charge recovered by the acquirer from the final recipient of the payment, that is, the merchant. It is collected by the acquirer to compensate the varied service providers and intermediaries in the payment system.
- Presently, there is no MDR levied for RuPay-based debit card and UPI transactions. Stakeholders are hence concerned over cost recovery for the services they provide.
- In August 2022, the Finance Ministry informed that it was not planning to levy any charges for UPI services, and added that, "The concerns of the service providers for cost recovery have to be met through other means."
- The Reserve Bank of India (RBI) expressed concerns about the potential adverse impact of the zero MDR regime on the growth of the digital payments' ecosystem. The National Payments Corporation of India (NPCI) requested the incentivisation of BHIM-UPI and RuPay debit card transactions to create "cost-effective value proposition for ecosystem stakeholders, increase merchant acceptance footprints and faster migration from cash payments to digital payments.



- There could be a staggered approach to pricing (slab wise/ depending on transaction size) and it could be significantly lower than MDR.
- This could provide innovation, make it somewhat profit accretive and provide incentive to all participants innovate to further while keeping very small transactions out of the ambit. Further. higher participation retail payments would improve the creditworthiness of transactors
- Analytics could enable banks to assess these and bring them into formal finance

channels if not already there and this could play a further important role in financial inclusion.

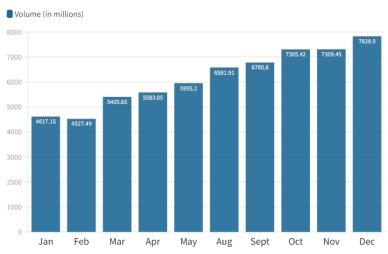
How is UPI placed in our overall payment ecosystem?

- As per NPCI data, As of January 17 2023, 3,192.70 million transactions approximately worth Rs 5.52 lakh crore have been facilitated using UPI in January month,
- In 2022, excluding one month of fall (between January and February), the volume of UPI transactions has been on an upward trajectory throughout. As per the DigiDhan dashboard maintained by the Ministry of Electronics and Information Technology (MeitY), BHIM-UPI accounted for 52% of all digital payments in FY 2021-22. At present, it stands at 61.38%.
- The BHIM-UPI app was unveiled by Prime Minister during the inauguration of the 'DigiDhan

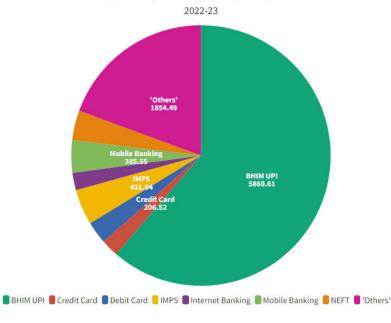
Volume (in millions) Value (in Cr.)

Monthly Statistics of UPI Payments - 2022*

*data for the months of June and July is not provided on NPCI's website



Volume of Digital Payments (in Cr.) - Payment Mode Wise



Mela' in December 2016. The Bharat Interface for Money (BHIM) is a payment app that lets the user make digital transactions using the Unified Payments Interface (UPI).

ENVIRONMENT

- Japan's decision to flush Fukushima wastewater into the ocean
- > CONTEXT: Japan is expected to start flushing 1.25 million tonnes of wastewater from the embattled Fukushima nuclear power plant into the Pacific Ocean in 2023, as part of a \$76-billion project to decommission the facility.
- The project received the Japanese cabinet's approval in 2021 and could take three decades to complete.
- The idea, which experts and officials in Japan had floated in 2016, has been controversial for its suspected impact on the water, marine life, fishers' livelihoods and other countries in the area.
- It has also received flak within Japan for sidelining other options and stoked concerns about the government's sincerity.
- **➣** Why is the water a problem?



- In March 2011, after a magnitude 9 earthquake, a tsunami flooded the Fukushima Daiichi nuclear power plant in Okuma and damaged its diesel generators. The loss of power suspended coolant supply to reactors at the facility; the tsunami also disabled backup systems.
- Soon, radioactive materials leaked from reactor pressure vessels, exploded in the facility's upper levels, and exposed themselves to the ambient air, water, soil, and local population. Winds also carried radioactive material thrown up into the air into the Pacific. Since then, the power plant and its surrounding land have been uninhabitable.
- The water that the Japanese government wants to flush from the plant was used to cool the reactors, plus rainwater and groundwater. It contains radioactive isotopes from the damaged reactors and is thus itself radioactive.
- ✓ Japan has said that it will release this water into the Pacific Ocean over the next 30 years.

> Can't the water be treated?

- According to The Tokyo Electric Power Company (TEPCO), which operates the Fukushima facility, it has treated the water to remove most radioactive isotopes. As per former Prime Minister that the water will be "far above safety standards. The government required the water to have 1/40th as much tritium as the permitted limit.
 - Officials have defended the plan saying TEPCO is running out of room for the water-tanks and that nuclear plants around the world regularly release water containing trace amounts of radionuclides into large waterbodies.
- According to some experts "There is no known threshold below which radiation can be considered safe.
 Any discharge of radioactive materials will increase the risk of cancer and other known health impacts to
 those who are exposed. Smaller discharges will obviously help with the extent of the risk if it measure
 expected numbers of cancers that might result but it wouldn't necessarily affect the impact on the
 reputations of fisherfolk in the region.
- Experts expect the affected water to poison the fish; "anyone who knows this is happening will, or should, avoid eating fish caught in the vicinity of the discharge point".
 - ✓ South Korea banned seafood imported from around Fukushima, to Japan's displeasure, from 2013.
- Another problem is that TEPCO hasn't removed tritium from the water because this is very difficult to do. Tritium is "easily absorbed by the bodies of living creatures" and "rapidly distributed via blood.
- In 2018, a report showed, there were other radionuclides in the water that TEPCO's treatment procedure couldn't entirely remove. These include isotopes of ruthenium and plutonium, which could persist for longer in the bodies of marine creatures and on the seafloor.

What are Japan's other options?

- Some have asked why the Japanese government can't store the water for longer and then discharge it. This is because tritium's half-life (the time it takes for its quantity to be halved through radioactive decay) is 12-13 years. The quantity of any other radioactive isotopes present in the water will also decrease in this time (each isotope has its own half-life). So at the time of discharge, the water could be less radioactive.
 - The Japanese government has also declared land around the Fukushima facility to be uninhabitable. The thousand or so tanks to hold the water, each with a capacity of 1,000 m3, can be situated here.
- But in 2020, authorities determined that flushing the water would be the way forward, over storage and vapourisation. Many experts agreed. After visiting Fukushima in February 2020, International Atomic Energy Agency (IAEA) officials also said the discharge would be "technically feasible and would allow the timeline objective to be achieved.

➤ Will the Pacific Ocean be affected?

- There are concerns about the water body as well as the region.
- ✓ China, South Korea and Taiwan have expressed concerns over Japan's plan. A representative of the Pacific Islands Forum, the bloc of Oceania countries including Australia, has called it "simply inconceivable" based on their experience with "nuclear contamination".
- ✓ Researchers have also called for more studies to understand the precise composition of each tank before it is flushed and for more details about TEPCO's water-treatment process.
- ✓ The National Institute of Marine Laboratories, published a position paper in December 2022 excoriating the plan: "The supporting data provided by TEPCO and the Japanese Government are insufficient and, in some cases, incorrect, with flaws in sampling protocols, statistical design, sample analyses, and assumptions".

How will the rest of the world be affected?

- All nuclear accidents have global repercussions.
- The Fukushima Daiichi accident triggered an avalanche of public opposition to nuclear power worldwide, especially in Europe, diminishing its contribution to the clean-energy power generation mix.



- In Japan itself, the accident reduced nuclear power's contribution to electricity generation from 30% before 2011 to 5% in 2022. But the incumbent government has articulated plans to upgrade and restart older reactors and build new ones in response to the increasing cost of fossil fuels.
- However, both India and China doubled down on their domestic commitments. Nuclear an "essential option" for India's climate action and energy security and India plans to expand its nuclear power programme with Russia's help.
- Then again, the accident also revived concerns about some existing nuclear power plants especially the Department of Atomic Energy's Kudankulam Nuclear Power Plant (KKNPP) facility in Tamil Nadu. In October 2012, police arrested nearly 2,000 protestors after they attempted to march to the Secretariat in Chennai against KKNPP, in response to the Fukushima accident and what they said were parallels between the two sites.
- Ultimately, Japan is also concerned about its reputation. An official committee including scientists, consumers' representatives and ministry officials wrote in a 2020 report: "it is important to dispose of the treated water as part of the decommissioning work taking into account the reputational impact when the disposal method for the treated water is examined.

PRELIMS

T+1 settlement cycle

CONTEXT: After China, India will become the second country in the world to start the 'trade-plusone' (T+1) settlement cycle in top listed securities on January 27, bringing operational efficiency, faster fund remittances, share delivery, and ease for stock market participants.

What's the T+1 settlement plan?

- The T+1 settlement cycle means that trade-related settlements must be done within a day, or 24 hours, of the completion of a transaction. For example, under T+1, if a customer bought shares on Wednesday, they would be credited to the customer's demat account on Thursday. This is different from T+2, where they will be settled on Friday. As many as 256 large-cap and top mid-cap stocks, including Nifty and Sensex stocks, will come under the T+1 settlement from Friday.
- Until 2001, stock markets had a weekly settlement system. The markets then moved to a rolling settlement system of T+3, and then to T+2 in 2003. T+1 is being implemented despite opposition from foreign investors. The United States, United Kingdom and Eurozone markets are yet to move to the T+1 system.

What are the benefits of T+1?

- FOR In the T+1 format, if an investor sells a share, she will get the money within a day, and the buyer will get the shares in her demat account also within a day.
- "The shorter trade settlement cycle that is set to be implemented augurs well for the Indian equity markets from a liquidity perspective, and it shows how well we have grown on the digital journey to ensure seamless settlements within 24 hours,".
- This will also help investors in reducing the overall capital requirements with the margins getting released on T+1 day, and in getting the funds in the bank account within 24 hours of the sale of shares. The shift will boost operational efficiency as the rolling of funds and stocks will be faster.

Could it also make markets safer?

- According to Securities and Exchange Board of India (SEBI), a T+1 settlement cycle not only reduces the timeframe but also reduces and frees up capital required to collateralise that risk.
- A shortened settlement cycle also reduces the number of outstanding unsettled trades at any point of time, and thus decreases the unsettled exposure to Clearing Corporation by 50 per cent. The narrower the settlement cycle, the narrower the time window for a counterparty insolvency/ bankruptcy to impact the settlement of a trade.
- The capital blocked in the system to cover the risk of trades will get proportionately reduced with the number of outstanding unsettled trades at any point of time. Systemic risk depends on the number of outstanding trades and concentration of risk at critical institutions such as CCPs, and becomes critical when this magnitude of outstanding transactions increases.
- According SEBI in this era of increasing trade volumes, a shortened settlement cycle will help in reducing systemic risk.

Why are foreign investors opposed?

- Foreign investors were against SEBI's T+1 proposal, and had written to the regulator and the Finance Ministry about the operational issues faced by them, as they operate from different geographies.
 - Among the issues raised by them were time zone differences, information flow processes, and foreign exchange problems.
 - They would also find it difficult to hedge their net India exposure in dollar terms at the end of the day under the T+1 system.



• In 2020, Sebi deferred the plan to halve the trade settlement cycle to one day (T+1) following opposition from foreign investors.

2. Padma Awards

> CONTEXT: The Padma Awards 2023 were announced by the Indian government on the eve of the 74th Republic Day. President Draupadi Murmu has given her approval for the presentation of 106 Padma Awards this year, including 3 duo cases

> The history of Padma Awards

- Two awards, the Bharat Ratna and Padma Vibhushan were first instituted in 1954 as India's highest civilian honours. The latter had three classes: Pahela Varg (1st Class), Dusra Varg (Second Class) and Tisra Varg (Third Class). In 1955, these were subsequently named as Padma Vibhushan, Padma Bhushan and Padma Shri respectively.
- While the Bharat Ratna is treated as an exceptional award with only 45 Bharat Ratnas being handed over till
 date, the Padma Awards are annually conferred to deserving civilians. Except for interruptions in 1978,
 1979 and between 1993 and 1997, every year the names of the recipients are announced on Republic Day
 eve.
- Typically, not more than 120 awards are given in a year, but this does not include posthumous awards or awards given to NRIs and foreigners. While the award is normally not conferred posthumously, the Government can consider posthumous felicitation in exceptional circumstances.
- The first ever Padma Vibhushan awardees in 1954 were scientist Satyendra Nath Bose, artist Nandalal Bose, educationist and politician Zakir Hussain, social worker and politician Balasaheb Gangadhar Kher, and diplomat and academic V.K. Krishna Menon. The first ever non-Indian Padma Vibhushan awardee was Bhutanese king Jigme Dorji Wangchuk, who also received the award in 1954.

> What the Padma Awards entail

- The awards are presented by the President of India, typically at the Rashtrapati Bhavan.
- The awardees do not get any cash reward but a certificate signed by the President apart from a medallion which they can wear at public and government functions. The awards are, however, not a conferment of title and the awardees are expected to not use them as prefix or suffix to their names.
- While a Padma awardee can be given a higher award (i.e. a Padma Shri awardee can receive a Padma Bhushan or Vibhushan), this can only happen after five years of the conferment of the previous award.
- The awards are given in certain select categories which include Art, Social Work, Public Affairs, Science & Engineering, Trade & Industry, Medicine, Literature & Education, Civil Service and Sports.
- Awards are also given for propagation of Indian culture, protection of human rights, wildlife protection among others.

> The eligibility for Padma Awards

- All persons without distinction of race, occupation, position or sex are eligible for these awards.
- However, government servants including those working with PSUs, except doctors and scientists, are not
 eligible for these awards.
- The award seeks to recognise works of distinction and is given for distinguished and exceptional achievements or service in all fields of activities and disciplines.
- According to Padma awards selection criteria, the award is given for "special services" and not just for "long service". "It should not be merely excellence in a particular field, but the criteria has to be 'excellence plus'.

➣ The process of selection for Padma Awards

- Any citizen of India can nominate a potential recipient. One can even nominate one's own self. All
 nominations are to be done online where a form is to be filled along with details of the person or the
 organisation being nominated. An 800-word essay detailing the work done by the potential awardee is also
 to be submitted for the nomination to be considered.
- The government opens the Padma awards portal for nominations between May 1 and September 15 every year. It also writes to various state governments, governors, Union territories, central ministries and various departments to send nominations.
- There is also no rigid criteria or trenchant formula for selection, however, the lifetime achievement of an individual is among the main considerations.
- All nominations received for Padma awards are placed before the Padma Awards Committee, which is constituted by the Prime Minister every year.
- The Padma Awards Committee is headed by the Cabinet Secretary and includes Home Secretary, Secretary to the President and four to six eminent persons as members. The recommendations of the committee are submitted to the Prime Minister and the President of India for approval.

• Once a preliminary selection is made, the antecedents of the selected awardees are verified using the services of central agencies to ensure nothing untoward has been reported or come on record about them. A final list is then prepared and announced.

> Can the Padma Awards be refused?

- While explicit consent is not sought from the awardee, before the final list is announced, they receive a call from the MHA. If they do not seek to receive the award, they can refuse at that time and their names will be removed without any noise. However, historically, there have been a few instances of more public refusals.
 - ✓ For instance, historian Romila Thapar refused to accept the Padma Bhushan twice, in 1992, and later again in 2005, stating that she would accept awards only "from academic institutions or those associated with my professional work."
 - ✓ Former Kerala Chief Minister and doyen of India's communist movement E.M.S. Namboodripad declined the award in 1992, as it went against his nature to accept a state honour.
 - ✓ Swami Ranganathananda declined the award in 2000 as it was conferred to him as an individual and not to the Ramakrishna Mission, his institution.
 - ✓ There have also been a few instances when the award has been "returned." Recently, former Punjab Chief Minister Parkash Singh Badal returned his Padma Vibhushan in 2020, in the wake of the raging farmers' protests in the state.

➤ Annulment of Padma Awards

- While extremely rare, the President of India can annul/cancel someone's Padma award in case of any egregious misconduct committed by the recipient.
 - Recently, this issue came up when medal-winning wrestler and Padma Shri awardee Sushil Kumar was implicated in a case of murder.

3. Monument Mitra scheme

- > CONTEXT: The Monument Mitra scheme, which entails adopting a heritage site and maintaining it, will soon be revamped to enable private firms, to partner for the upkeep of 1,000 ASI monuments.
- One of the significant provisions in the revamped version of the scheme, a heritage site or part of the historical building under the jurisdiction of the Archaeological Survey of India (ASI), which functions under the culture ministry, may be handed over to two or multiple bidders.
- This revised scheme will be led by the culture ministry.
- The previous scheme was led by the tourism ministry.
- Options will be available to individuals to take up entire property or just one or two amenities.
- Companies shortlisted to be 'Monument Mitras' include companies from the hospitality industry, travel industry and banking industry and even an international school
- The basic and advanced amenities of the tourist destinations would be taken care of by the respective private entity under its Corporate Social Responsibility (CSR) activity

About the scheme:

- The project aims to develop monuments, heritage and tourist sites across India by inviting corporate entities, public sector companies or individuals to 'adopt' them
- The monuments are separated into three categories depending on tourist footfall and visibility:
 - ✓ Green: Iconic sites like the Taj Mahal, Qutub Minar, and Red Fort, among others, are categorized as 'Green'
 - ✓ Blue: while Purana Quila and Jantar Mantar fall in the 'Blue' category
 - ✓ Orange: The Sanchi Stupa is one popular site in the 'Orange' category
- Entities are encouraged to adopt from the Blue and Orange category, or a mix of the three.
- Adoption of only 'Green' category monuments is not allowed

ANSWER WRITTING

Q. "Inheritance laws in India present a deeper conundrum and are rooted in inequality and oppressive caste system" Discuss.

Inheritance laws in India find their roots in the diverse religious beliefs of different communities. Hindus are governed by the 2005 Hindu Succession Amendment Act (HSAA); Muslims by the Muslim Personal Law (Shariat) Application Act, 1937; Christians and Parsis by the Indian Succession Act 1925 and tribal groups are still subject to custom. There is no unified body of inheritance laws in India and almost all personal laws are notwithstanding the constitutional guarantee of "equality of all" in matters of inheritance rights.

Issues of inequality with the inheritance laws:

• **Lifelong stigma:** Due to the social stigma attached to Dalits, tribals, widows and even the unmarried, women from these groups largely have no rights to property.



- Caste system still governs land ownership: Rules laid by manusmriti for property ownership continue to echo today. For example, some 400 castes across Gujarat demanded that the government lawfully deem that if any daughter marries outside her caste according to her wish, she should not legally inherit any parental property.
- **Problems in Muslim personal laws:** Under Muslim personal law, women's shares are less than men's. It is a general practice that females are given a share equal to half of the share of their male counterparts. The shares also change with the presence or absence of other heirs.
- Technical and legal gaps: Although HSAA provides for equal rights in property ownership, awareness about land rights and the various documents and processes required to get their names registered in the property papers, remain largely absent among women.
 - The process of filing for succession is tedious and requires a woman to not only prove that her father/husband/brother is dead (meaning a death certificate that women often don't possess) but also to procure two witnesses who know her and can youch for her as related to the deceased.
 - In cases of dispute, the onus to prove ownership of the property is usually on the woman.
- Confusion over the inheritance of agricultural land: In certain states inheritance of agricultural land is governed by personal laws while many other states are silent on the matter. Most states give primacy to male lineal descendants as successors to agricultural land in a patrilineal system, and women come very low in the order of devolution.

To ensure gender equality in inheritance, a gender review of all laws including personal laws, state laws and customary laws is a necessary first step. Intensive efforts are needed to sensitize various stakeholders such as political leaders, bureaucrats, and judicial officers towards accepting women's claims as lawful and just. Equality enshrined in legal instruments would pave the way for women to assert their rights and empower them amid complicated social contexts.

MCQs

- With reference to digital payments, consider the following statements:
 - 1. BHIM app allows the user to transfer money to anyone with a UPI-enabled bank account.
 - 2. While a chip-pin debit card has four factors of authentication, BHIM app has only two factors of
- It is an Indian mobile payment App developed by the National Payments Corporation of India (NPCI). ive Coaching for UPSC/ Which of the statements given above is/are correct?
 - a) 1 and 3 only
 - b) 2 and 3 only
 - c) 1 and 2 only
 - d) 1,2 and 3
- Consider the following statements with respect to radiation.
 - Radiation, that is given off by nuclear waste is extremely damaging to organisms.
 - Nuclear waste is not a potent pollutant and can be dealt without any caution.
 - Radiation causes mutations at a very high rate.
 - At low doses, nuclear radiation is lethal but at high doses, it creates various disorders.

Which of the above statement/s is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 3 and 4 only
- d) 1 and 3 only
- Consider the following statements in respect of Bharat Ratna and Padma Awards:
 - 1. Bharat Ratna and Padma Awards are titled under Article 18(1) of 'the Constitution of India.
 - 2. Padma Awards, which were instituted in the year 1954, were suspended only once.
 - 3. The number of Bharat Ratna Awards is restricted to a maximum of five in a particular year.

Which of the above statements are **not** correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3
- With reference to T+1 settlement consider the following
 - 1. China is the only market of significant size and scale which operates on a shortened settlement cycle.
 - In context of India Foreign portfolio investors (FPIs) will benefited from the new regime because of the difference in time zones, especially for the US and European investors.

Which of the above statement/s is are incorrect?

- 1 only
- b) 2 only



- c) Both 1 and 2
- d) Neither 1 nor 2
- 5. Consider the following statements with respect to 'Monument Mitra Scheme'
 - 1. The scheme applies to all centrally protected heritage properties
 - 2. It was started under the Ministry of Culture in respect of the monuments under the Archaeological Survey of India
 - Corporate entities may take over the monuments as part of their Corporate Social Responsibility under this scheme

Choose the incorrect statement using the code given below

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 2 only
- With reference to the Aditya- L1 mission, consider the following statements:
 - 1. It is India's first solar mission.
 - 2. Under the mission, the study the Sun's corona, solar emissions, solar winds and flares, and Coronal Mass Ejections (CMEs) are to be conducted.

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
- 7. Etikoppaka Wooden Toy Craft often mentioned in news belongs to which of the following state?
 - a) Jharkhand
 - b) Rajasthan
 - Andhra Pradesh c)
 - d) Gujarat
- 8. The principle of "Leaving No One Behind" often heard in news is associated with which of the following?
- 9. With reference to M1 Abrams tank consider the following

 1. It is a third-generation American main battle to 1

 2. Indian army has been

Which of the above statement/s is/are correct?

- a) 1 only
 - b) 2 only
 - c) Both 1 and 2
 - d) Neither 1 nor 2
- 10. With reference to Lagrange's points, consider the following statements:
 - 1. At Lagrange points, the gravitational pull of two large masses precisely equals the centripetal force required for a small object to move with them.
 - These points in space can be used by spacecraft to reduce fuel consumption needed to remain in position.

Which of the above statements is/are correct?

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