

**GOVERNANCE****Ghar Tak Fiber Scheme: Bihar**

- Recently, the Prime Minister of India inaugurated 'Ghar Tak Fibre' scheme in Bihar.

**Key Points****Ghar Tak Fibre Scheme:**

- It aims to connect all 45,945 villages of Bihar with high-speed optical fibre internet by 31st March 2021.
- Under the scheme, Bihar has to provide at least five fibre-to-the-home (FTTH) connections per village and at least one WiFi hotspot per village.
- The Scheme will be implemented by the Ministry of Electronics and Information Technology.

**Benefit:**

- The Scheme will lead digital services including e-Education, e-Agriculture, Tele-Medicine, Tele-law and other social security schemes in Bihar ensuring easy access to all state natives.
- It is also likely to boost the local employment generation with the implementation of Bharat Net initiative which will be done by recruiting local workers.

**Internet Penetration in Bihar:**

- According to TRAI's report, only 30.35% Bihar's population has internet connectivity, much below India's population connectivity of 55%.
- Only 22.61% of the rural Bihar have an internet connection. Compared to this Kerala has 98.10% rural internet connectivity.
- Bihar also has the lowest urban internet subscribers amounting to 73.26% of the urban population. States like Madhya Pradesh, Andhra Pradesh, Tamil Nadu, and West Bengal all have an urban subscriber base above 90%.
- However, of the 8,745 gram panchayat (GP) in Bihar, almost all are connected to the state's main internet grid under BharatNet Project.
- BharatNet, a special purpose vehicle envisaged in 2011, was an ambitious plan to connect all the 2,50,000 gram panchayats through a high-speed optical network.
- Initially it was launched as National Optical Fibre Network (NOFN), it was renamed as BharatNet Project in 2015.
- Under the BharatNet Project a village or a gram panchayat (GP) is considered 'lit up' when it consistently has internet connection and users at the end to verify the same.

**Challenges:**

- Of all the GPs of Bihar connected under phase one, 3,591 gram panchayats are non-operational, while the status of another 200 is unclear.
- The main problems are lack of power and related equipment failure, equipment theft, and faulty fibre.
- While optical fibre cable has been laid to connect nearly all the GPs, lack of users in these areas has resulted in minimal or zero follow-ups on repair and maintenance work.

**Way Forward**

- The Ghar Tak Fibre scheme marks a step towards the prime minister's announcement on 15th August 2020, that all six lakh villages in India will be connected with optical fibre internet in the next 1,000 days (by 2024).
- India's telecom sector has come a long way through the adoption of mobile technologies. However, for India to emerge as a dominant digital economy, the government needs to prioritize achievable targets and ensure the implementation of the initiatives.

**SCIENCE AND TECHNOLOGY****Naval Version of BrahMos Tested**

A naval version of the BrahMos supersonic cruise missile was successfully test-fired from an indigenously built stealth destroyer (INS Chennai) of the Indian Navy in the Arabian Sea.

**Key Points**

- BrahMos: It is a joint venture between the Defence Research and Development Organisation of India (DRDO) and the NPOM of Russia.
- Brahmos is named on the rivers Brahmaputra (India) and Moskva (Russia).
- It is a supersonic missile travelling at a speed of Mach 2.8 (nearly three times the speed of sound)
- It is the world's fastest supersonic cruise missile.
- It is a multiplatform i.e it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.

- It is, therefore, used by all three forces, the Army, Navy and the Air Force.
- It operates on the "Fire and Forget" principle i.e it does not require further guidance after launch.
- It is the heaviest weapon to be deployed on Sukhoi-30 MKI fighter aircraft, with a weight of 2.5 tonnes.
- Its range has been recently enhanced from 300 Km to 450-600 Km,
- Increasing the missile's range became possible after India's induction into the Missile Technology Control Regime (MTCR) in June 2016.
- The missile features indigenous Booster and Airframe Section, along with many other indigenous sub-systems.

**Advantages:**

- BrahMos has been deployed in Ladakh as well as the Eastern Sector in Arunachal Pradesh to tackle any threats in the ongoing standoff with China.
- Enhanced use of indigenous technologies will give a boost to India's AtmaNirbhar Bharat.
- Increasing indigenous content in defence systems has also been a prime focus of Defence Acquisition Procedure, 2020 and draft Defence Production and Export Promotion Policy 2020.

**Recent Defence Testing:**

- India also carried out successful test firing of a laser guided anti-tank guided missile and nuclear capable hypersonic missile 'Shourya'.
- The successful test firing of Rudram-1 was seen as a major milestone as it is India's first indigenously developed anti-radiation weapons

**SOCIAL JUSTICE****Air Pollution in Delhi**

Recently, the Union Minister for Environment, Forest and Climate Change has highlighted that the air pollution is not a problem of Delhi and its corporations alone but that of a big airshed around it that includes the National Capital Region (NCR).

**Key Points****Airshed:**

- In geography, an airshed is defined as a region in which the atmosphere shares common features with respect to the dispersion of pollutants; in other words, a region sharing a common flow of air.
- With reference to the air pollution in and around Delhi, the airshed includes Gurgaon, Faridabad, Ghaziabad, Noida, areas of Uttar Pradesh, Haryana and even Alwar in Rajasthan.

**Current Air Quality:**

- The Air Quality Index (AQI) of Delhi has improved within the 'poor' category.
- As per a forecast from the Central government's System of Air Quality and Weather Forecasting And Research (SAFAR) the AQI is expected to stay in the higher end of 'poor' to the lower end of 'very poor' category for the following days.
- During the lockdowns, Delhi saw among the cleanest air since comprehensive records have been kept since 2015.

**Air Pollution in Delhi**

- Air pollution in Delhi-NCR and the Indo Gangetic Plains is a complex phenomenon that is dependent on a variety of factors.

**Change in Wind Direction:**

- October usually marks the withdrawal of monsoons in Northwest India and during this time, the predominant direction of winds is northwesterly.
- The direction of the wind is northwesterly in summers as well, which brings the dust from northern Pakistan and Afghanistan.

**Reduced Wind Speed:**

- High-speed winds are very effective at dispersing pollutants, but winters bring a dip in wind speed overall as compared to in summers which makes the region prone to pollution.
- Also, Delhi lies in a landlocked region which does not have a geographical advantage that eastern, western or southern parts of the country enjoy where the sea breeze disperses the concentrated pollutants.

**Stubble Burning:**

- Stubble burning in Punjab, Rajasthan and Haryana is blamed for causing a thick blanket of smog in Delhi during winters.

- It emits large amounts of toxic pollutants in the atmosphere which contain harmful gases like methane (CH<sub>4</sub>), carbon monoxide (CO), volatile organic compounds (VOC) and carcinogenic polycyclic aromatic hydrocarbons.
- Farm fires have been an easy way to get rid of paddy stubble quickly and at low cost for several years.
- Vehicular Pollution:
- It is one of the biggest causes of dipping air quality in Delhi in winters and around 20% of PM<sub>2.5</sub> in winters comes from it.

**Dust Storms:**

- Dust storms from Gulf countries enhance the already worse condition. Dry cold weather means dust is prevalent in the entire region, which does not see many rainy days between October and June.
- Dust pollution contributes to around 56% of PM<sub>10</sub> and the PM<sub>2.5</sub> load.

**Dip in Temperatures:**

- As temperature dips, the inversion height is lowered and the concentration of pollutants in the air increases when this happens.
- Inversion height is the layer beyond which pollutants cannot disperse into the upper layer of the atmosphere.

**Firecrackers:**

- Despite the ban on cracker sales, firecrackers are a common sight on Diwali. It may not be the top reason for air pollution, but it definitely contributed to its build-up.

**Construction Activities and Open Waste Burning:**

- Large-scale construction in Delhi-NCR is another culprit that is increasing dust and pollution in the air. Delhi also has landfill sites for the dumping of waste and burning of waste in these sites also contributes to air pollution.

**Major Measures Taken**

- Subsidy to farmers for buying Turbo Happy Seeder (THS) which is a machine mounted on a tractor that cuts and uproots the stubble, in order to reduce stubble burning.
- The introduction of BS-VI vehicles, push for electric vehicles (EVs), Odd-Even as an emergency measure and construction of the Eastern and Western Peripheral Expressways to reduce vehicular pollution.
- Implementation of the Graded Response Action Plan (GRAP) to tackle the rising pollution in the Capital. It includes measures like shutting down thermal power plants and a ban on construction activities.
- Development of the National AQI for public information under the aegis of the Central Pollution Control Board (CPCB). AQI has been developed for eight pollutants viz. PM<sub>2.5</sub>, PM<sub>10</sub>, Ammonia, Lead, nitrogen oxides, sulfur dioxide, ozone, and carbon monoxide.

**Way Forward**

- Appropriate political will and aware citizenry is a prerequisite to tackle the menace, otherwise, all the measures will remain on paper only and greater public transparency is essential to the success of winning the war on air pollution.
- There is no better watchdog than active citizens, which is why the pollution targets must be made public every year for their perusal and to be evaluated at the end of the year.
- Breathing clean air is a fundamental right of every Indian citizen. Therefore, human health must become a priority when it comes to tackling air pollution.

**ENVIRONMENT AND DIVERSITY**

**Dolphins in Pearl River Estuary**

According to a recent report, Chinese pink dolphins are making a comeback in the Pearl River Estuary (PRE).

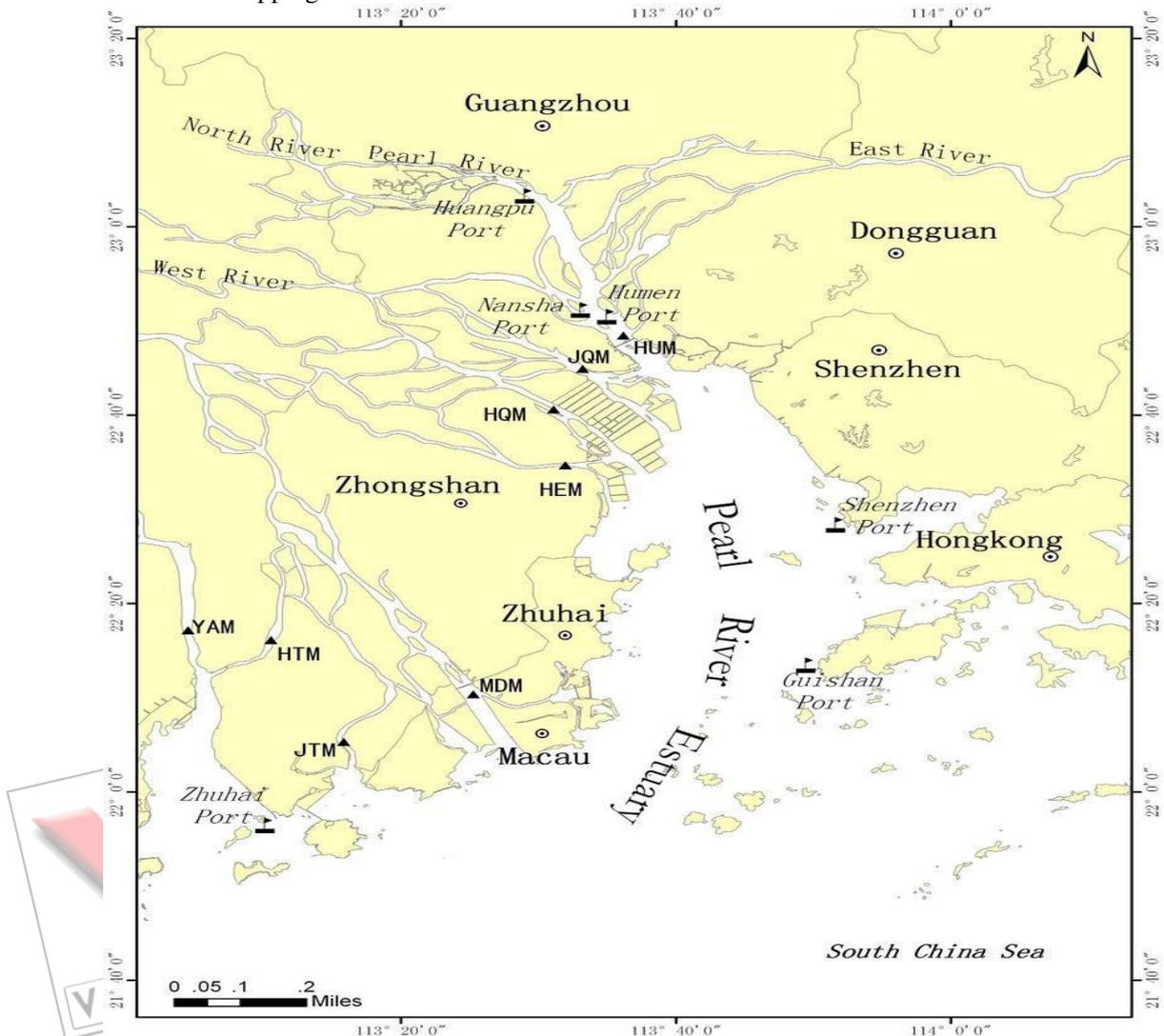
- Indo-Pacific humpback dolphins are also known as Chinese white dolphins or pink dolphins, reflecting the colour of their skin.

**Key Points**

**Pearl River Estuary:**

- It includes Hong Kong, Macau as well as the mainland Chinese cities of Shenzhen, Guangzhou and Dongguan. Around 22 million people live in the area.

- The Pearl River Delta, the low-lying area surrounding the PRE where the Pearl River flows into the South China Sea, is one of the world's most densely urbanised, heavily industrialised and busiest shipping lanes on Earth.



**Current Scenario and Reasons Behind:**

- Dolphins use echolocation to find their way in the water and the ships often disturb them in finding their way and even kill them.
- Echolocation is a technique used by bats, dolphins and other animals to determine the location of objects using reflected sound.
- This allows the animals to move around in pitch darkness, so they can navigate, hunt, identify friends and enemies, and avoid obstacles.
- However, dolphin numbers in the waters between Hong Kong and Macau have seen a rebound in 2020 because Covid-19 pandemic has stopped ferries and hence reduced their traffic.
- The number of pink dolphins in the waters has roughly increased by a third according to scientists.

**Indo-Pacific Humpback Dolphin:**

- Scientific Name: *Sousa Chinensis*.



**Habitat Range:**

- Its total range is in coastal waters from central China southward throughout Southeast Asia and westward to the Bay of Bengal, with highest densities in and around estuaries.
- The distribution is fragmented such that these dolphins are apparently absent from fairly long stretches of coastline. It is not always clear whether the fragmentation is ‘natural’ or caused by human activities.
- The World Wildlife Fund for Nature (WWF) says the population in the PRE is believed to be around 2,500, but falling numbers of young could reduce numbers in future.
- They have seen a decline in their numbers in the past 15 years by 70-80%.

**Threats:**

- Agricultural, industrial, and urban pollution.
- Overfishing.
- Marine construction including bridge-building and land creation for airport expansion and residential/office development.
- Transport including fast ferries.
- Selling into captivity at marine “entertainment” parks and aquariums worldwide.

**Effects:**

- Loss of suitable habitat, the mortality of dolphins from entanglements and vessel strikes, and the possible effects of chemical, sewage and noise pollution on their health.

**Conservation:**

- IUCN Status: Vulnerable.

**INTERNATIONAL AFFAIRS**

**Israel and Bahrain Diplomatic Ties**

Bahrain and Israel are signing a joint communique on the establishment of diplomatic, peaceful and friendly relations, as well as a number of memorandums of understanding in areas of mutual benefit.

**Key Points**

- Bahrain has a history of open politics and civil society movements, although rights have been curtailed in the past decade.
- The decision to normalise ties comes from the belief in the values of tolerance in a region whose people have suffered from wars and conflicts.
- The United Arab Emirates and Bahrain became only the third and fourth Arab states to agree to normalise ties with Israel, following Israel’s 1979 peace deal with Egypt and a 1994 pact with Jordan.
- Under the deal, Israel would suspend its plans to annex large parts of the occupied West Bank.
- The West Bank is sandwiched between Israel and Jordan. One of its major cities is Ramallah, the de facto administrative capital of Palestine.
- Israel took control of it in the Six-day Arab-Israeli war, 1967 and has over the years established settlements there.

**Impact on the USA:**

- This is the second deal in 2020 after the Israel-UAE Peace Deal brokered by the USA. The recognition grants a diplomatic win to the USA President Donald Trump ahead of the Presidential election.
- The deal buys UAE a lot of goodwill in the US, where its image has been tarnished by its involvement in the Yemen war.

- Saudi Arabia made clear that it will not normalise ties without a resolution to the Palestinian issue despite signs of rapprochement.

**Concerns:**

**For Palestine:**

- The Palestinians have not embraced the USA's vision. 86% of Palestinians believed the normalization agreements with the UAE and Bahrain served only Israel's interests and not their own.
- For Palestinians, who long have relied on Arab backing in their struggle for independence, the announcement marked both a win and setback for the Israel-Palestine relations.
- While the deal halts Israeli annexation plans of the west Bank, the Palestinians have repeatedly urged Arab governments not to normalize relations with Israel until a peace agreement establishing an independent Palestinian state is reached.
- Shia-Sunni rifts in the region may get wide and violent.
- Saudi Arabia (Sunni) and Iran (representing Shia) have a long history of enmity. For decades, one of the main sources of instability in West Asia has been the cold war between Saudi Arabia and Iran.
- The Sunni-Shiite schism may also provoke violence between Muslims in such places as Pakistan, Nigeria and Indonesia.
- **Indian Interest in West Asia:** A peaceful and prosperous West Asia is necessary for India. Such deals between Arab Countries and Israel are having a positive impact for Indian interests in the region. Also, difficulty in balancing Arab countries and Israel will become easy.

**Indian interests include:**

- Geopolitical: West Asia occupies an important position in international relations due to its geographical location and proximity to continents and countries South Asia, China, Central Asia, Europe, and Africa.
- Energy: The region is strategically significant due to its enormous energy resources, trade route links to different parts of the world.
- It is the world's largest oil-producing region accounting for 34% of world production, 45% of crude oil exports and 48% of oil proven reserves.
- Diaspora: Indian expatriates have constituted a substantial share of the regional labour market.
- Remittances from the region constitute a major chunk of total remittances to India.

**Way Forward**

- A balance between Shia and Sunni, between Iran and Arab, is key to any sustainable peace.
- The US may be a pre-eminent power in the Middle East, but Russia has made a space for itself, spending a lot less money. In recent years, China has indicated its willingness to play a larger role in this region.
- India should make its moves before this market and this extended neighbourhood come under the Chinese sphere of influence.
- A deal that could, if played right, open the doors for a changed geopolitical arrangement in the Middle East should have a stronger Indian footprint.

**IMPORTANT FACTS FOR PRELIM**

**SLINEX-20**

The 8th edition of annual India – Sri Lanka bilateral naval maritime exercise, SLINEX-20 will be held at Trincomalee, Sri Lanka from 19 to 21 October 2020.

- ❖ The 7th edition of SLINEX was conducted off Visakhapatnam in September 2019. SLINEX series of bilateral maritime exercises were initiated in 2005.

**Key Points**

**Aim:**

- ❖ SLINEX aims to enhance interoperability, improve mutual understanding and exchange best practices and procedures for multi-faceted maritime operations between both navies.
- ❖ It exemplifies the deep engagement between India and Sri Lanka which has strengthened mutual cooperation in the maritime domain.

**The 2020 Exercise:**

- ❖ In SLINEX-20, the Indian Navy will be represented by Indigenously built ASW corvette Kamorta and Kiltanunder.

- ❖ Indian Navy Advanced Light Helicopter (ALH) and Chetak helicopters and Dornier Maritime Patrol Aircraft will also be participating.
- ❖ The Sri Lanka Navy will be represented by SLN Ships Sayura (Offshore Patrol Vessel) and Gajabahu (Training Ship).
- ❖ The maritime exercise will also showcase capabilities of India's indigenously constructed naval ships and aircraft.
- ❖ Surface and anti-air exercises including weapon firing, seamanship evolutions, manoeuvres and cross deck flying operations are planned during the exercise, which will further enhance the high degree of interoperability already established between the two friendly navies.

**Covid Impact:**

- ❖ The exercise is being conducted in a non-contact 'at-sea-only' format in the backdrop of Covid-19 pandemic.

**Outcome:**

- ❖ The exercise plays a significant role in strengthening bilateral ties and also reiterating India's policy of 'Neighbourhood First' and 'Security and Growth for all in the Region (SAGAR)'.

Important Bilateral and Multilateral Defence Exercises	
Indra	India-Russia Naval Exercise
Malabar	US-India-Japan Naval Exercise
Varuna	France and India Naval Exercise
Simbex	India and Republic of Singapore Naval Exercise
Ibsamar	India, Brazil and South Africa Naval Exercise
Konkan	India and Britain Naval Exercise
Ausindex	India and Australia Naval Exercise
Naseem Al-Bahr	India-Oman Naval Exercise

**DAILY ANSWER WRITING PRACTICE**

**Qns. What were the aims and objectives of Indian National Congress at the time of its inception. Discuss how far was it successful to achieve the targets. (250 words)**

**Ans.**

In the later 1870s and early 1880s, a solid ground had been prepared for the establishment of an all-India organisation. The final shape to this idea was given by a retired English civil servant, A.O. Hume, who mobilised leading intellectuals of the time and, with their cooperation, organised the first session of the Indian National Congress in December 1885.

**The main aims of the Indian National Congress in the initial stage-**

- Found a democratic, nationalist movement;
- Politicise and politically educate people;
- Establish the headquarters for a movement;
- Promote friendly relations among nationalist political workers from different parts of the country;
- Develop and propagate an anti-colonial nationalist ideology;
- Formulate and present popular demands before the government with a view to unifying the people over a common economic and political programme;
- Develop and consolidate a feeling of national unity among people irrespective of religion, caste or province;
- Carefully promote and nurture Indian nationhood.
- Evaluation of the success of INC in the early phase

**Successes**

- They represented the most progressive forces of the time.
- They were able to create a wide national awakening of all Indians having common interests and the need to rally around a common programme against a common enemy, and above all, the feeling of belonging to one nation.
- They trained people in political work and popularised modern ideas.
- They exposed the basically exploitative character of colonial rule, thus undermining its moral foundations.
- Their political work was based on hard realities, and not on shallow sentiments, religion, etc.
- They were able to establish the basic political truth that India should be ruled in the interest of Indians.

- They created a solid base for a more vigorous, militant, mass-based national movement in the years that followed.

**Issues with functioning in its early phase**

- The early nationalists did a great deal to awaken the national sentiment, even though they could not draw the masses to them.
- The moderate phase of the national movement had a narrow social base and the masses played a passive role. This was because the early nationalists lacked political faith in the masses; they felt that there were numerous divisions and subdivisions in the Indian society, and the masses were generally ignorant and had conservative ideas and thoughts.
- INC in the early phase failed to widen their democratic base and the scope of their demands.

**Conclusion**

Earlier, there was a theory that Hume formed the Congress with the idea that it would prove to be a 'safety valve' for releasing the growing discontent of the Indians. However, INC represented the urge of the politically conscious Indians to set up a national body to express the political and economic demands of the Indians.

In the circumstances, Historians observe, the early Congress leaders used Hume as a 'lightning conductor' i.e., as a catalyst to bring together the nationalistic forces even if under the guise of a 'safety valve'.

**DAILY QUIZ**

- Consider the following statements:
  - Export Promotion Capital Goods (EPCG) Scheme allows exporters to import capital goods for production at zero customs duty.
  - Deemed Exports refers to those transactions in which the goods supplied do not leave the country.
 Which of the statements given above is/are NOT correct?
  - 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2**
- Consider the following statements:
  - An increase in net remittances improves the BoP position.
  - India is the top remittance recipient country in 2018.
 Which of the statements given above is/are correct?
  - 1 only
  - 2 only
  - Both 1 and 2**
  - Neither 1 nor 2
- Consider the following statements:
  - Foreign Portfolio Investment (FPI) is often referred to as hot money.
  - Net International Investment Position (NIIP) measures the gap between a nation's stock of foreign assets and foreigner's stock of that nation's assets at a specific point in time.
 Which of the statements given above is/are correct?
  - 1 only
  - 2 only
  - Both 1 and 2**
  - Neither 1 nor 2
- Consider the following statements:
  - To facilitate faster clearances at the ports for imports Direct Port Entry (DPE) scheme is introduced.
  - Generally, an increase in net External Commercial Borrowings (ECBs) improves the BoP position.
 Which of the statements given above is/are NOT correct?
  - 1 only**
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
- Consider the following statements:
  - An inverted duty structure will reduce the cost of intermediate inputs imported for manufacturing of exports thereby making the country's exports more competitive.
  - An increase in imports of raw materials and intermediate goods leads to an increase in exports of finished goods from India.
 Which of the statements given above is/are correct?
  - 1 only
  - 2 only**
  - Both 1 and 2
  - Neither 1 nor 2