AROUND-U

CURRENT AFFAIRS MAGAZINE

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HOW DOES THE MONSOON AFFECT THE ECONOMY?

INDIA'S ANNUAL MONSOON RAINFALL IS EXPECTED TO BE 98% OF THE LONG-PERIOD AVERAGE (LPA)

LINKING OF PAN TO AADHAAR IS FINE : SC

THE SUPREME COURT UPHELD THE VALIDITY OF AN INCOME TAX LAW AMENDMENT LINKING PAN WITH AADHAAR FOR FILING TAX RETURNS

INDIA, PAKISTAN BECOME FULL MEMBERS OF SCO

INDIA AND PAKISTAN BECAME A FULL MEMBER OF THE SHANGHAI COOPERATION ORGANISATION (SCO).

INDIA CHINA BORDER DISPUTE

CHINA HAD SUSPENDED THE ENTRY OF INDIAN PILGRIMS UNDERTAKING THE KAILASH MANSAROVAR YATRA AND LODGED A FORMAL PROTEST WITH NEW DELHI

GS 1 History Culture Social issues and Geography

El Nino – Indian meteorological department
The India Meteorological department predicted more rain than country is likely to get more what was originally forecast in April.
Mains   : GS 1 Indian Heritage and Culture, History and Geography of the World and Society.

- Update says rainfall will be 'normal'; private forecaster Skymet sticks to 'below normal' forecast.
- The IMD said rains in July and August, the most important monsoon months for the kharif crops, would be 96% and 99% respectively, of what was normal.
- IMD expects a balanced geographical distribution.
- The season rainfall is likely to be 96% of the historical average in north-west India, 100% of the LPA(Long period average) over central India, 99% of the LPA over the south peninsula, and 96% of the LPA over north-east India, with a model error of ± 8 %. (The LPA is a 50-year average of the monsoon rains in India.)

El - Nino and monsoon
- The IMD predicted more rain hoping that El Nino would be weaker than anticipated.
- The El Nino is known to dry up monsoon rain every six out of 10 years.
- A positive Indian Ocean Dipole (IOD) is said to buffer the impact of El Nino and contribute to better rains. (The IOD is a swing in surface temperatures that turns the western Indian Ocean alternately warmer and then colder than the eastern part of the ocean.)

In April, the IMD shifted to using a new monsoon forecast system, called a dynamical model that works by supercomputers simulating the weather and extrapolating it.

India Meteorological Department
- India Meteorological Department was established in 1875.
- It is the National Meteorological Service of the country and the principal government agency in all matters relating to meteorology, seismology and allied subjects.
- IMD is under Ministry of Earth Sciences

El Nino
El Niño is an abnormal weather pattern that is caused by the warming of the Pacific Ocean near the equator, off the coast of South America. This occurs when the normal trade winds weaken (or even reverse), which lets the warm water that is usually found in the western Pacific flow instead towards the east. This warm water displaces the cooler

water that is normally found near the surface of the eastern Pacific, setting off atmospheric changes that affect weather patterns in many parts of the world.

Water temperature of the Pacific Ocean during El Nino

A temperature increase of least 0.9 F (0.5 C) needs to occur in the waters of the eastern Pacific Ocean near the equator for it to be considered an El Niño year. Although El Niño does not occur in a perfectly regular pattern, it seems to happen every 2 to 7 years. Following an El Niño, an opposite phenomenon occurs, called La Niña. During La Niña, the eastern Pacific Ocean experiences cooler than normal temperatures around the equator.

How does the monsoon affect the economy?

India's annual monsoon rainfall is expected to be 98% of the long-period average (LPA), up from 96% projected earlier, raising prospects of higher farm output and economic growth.

Mains : GS 1 Indian Heritage and Culture, History and Geography of the World and Society. **GS 3** Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

What is a normal monsoon?

The monsoon is considered normal if rains in the June-September season are between 96% and 104% of a 50-year average of 89 cm.

Why are monsoon rains important for India?

Agriculture: At least half the farmlands in India are rain-fed. India gets 70% of annual rainfall in the June-September monsoon season, making it crucial for 800 million people who depend on agriculture. Moreover about 15% of India's gross domestic product (GDP) comes from agriculture.

What happens to the Indian economy if there is good monsoon?

- It will boost farm output and farmers' income, thereby increasing the demand for consumer and automotive products in rural markets.
- It has a positive impact on hydro power projects.
- It lifts rural income.

What is the significance of this monsoon season?

- India witnessed a normal monsoon in 2016 after two back-to-back poor monsoons in 2014 and 2015.
- A good monsoon this year will will help revive consumption demand, which was severely affected by demonetisation.
- A normal monsoon is crucial as the Goods and Services Tax (GST) rollout is likely to cause headaches for enterprises in the initial phase and disrupt the working capital cycle of businesses.

What happens in case of a poor monsoon?

- It will adversely affect summer or Kharif crops which accounts for almost half of India's food output.

- It will lead to supply issues and acceleration in food inflation, a key metric which influences Reserve Bank of India's decision on interest rates.
- It can lead to a drought-like situation, affecting the rural household incomes, consumption and economic growth.
- A poor monsoon leads to weak demand for fast-moving consumer goods, two-wheelers, tractors and rural housing sectors
- It may also force the government to take measures like farm loan waivers, thereby putting pressure on finances.

Prelims perspective

Model Questions *[UPSC Prelims 2012]*

Consider the following statements:

1. The duration of the monsoon decreases from southern India to northern India.
2. The amount of annual rainfall in the northern plains of India decreases from east to west.

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

Mains Perspective

Model questions

How far do you agree that the behavior of the Indian monsoon has been changing due to humanizing landscape? Discuss. *[UPSC Mains 2015]*

Sources: The Hindu The Hindu The Hindu

National Mission on Cultural Mapping of India

The Ministry of Culture, Government of India is launching the implementation of the "National Mission on Cultural Mapping of India'

Mains   : GS 1 Indian culture will cover the salient aspects of Art Forms, Literature and Architecture from ancient to modern times.

Aim of the mission

- The mission aims at converting the vast and widespread cultural canvas of India into an objective cultural map.
- It aims at designing a mechanism to fulfil the aspirations of the whole artist community of the nation and preserving the rich cultural heritage of this country in the form of a cultural repository of artists and art forms.
- This Mission is part of the 'Ek Bharat Shreshtha Bharat' umbrella.

How it works

- Artists will take part in the mission in Block level events where artists can also register. An artist will be provided a stage to perform and display their talent.

- A panel of renowned artists has also been invited for judging the participants in different art forms.

Other details

- This Mission encompasses data mapping, demography building formalising the processes and bringing all the cultural activities under one web based umbrella for better results.
- The Mission also seeks to open a direct channel of communication of artists with the Government and peer to peer communication among artists for talent honing and handholding of each other.
- The Cultural Mapping of India portal will serve as a repository/consolidated database of information about cultural assets and resources i.e. a cultural inventory at one place for essential planning, sustainable economic development and for preserving the scattered and near extinct art forms.

Prelims perspective

Model questions

National Mission on Cultural Mapping of India recently in news is related to

    a. reviving old folk dances in India

    b. creating a cultural repository

    c. Heritage monuments protection

    d. None of the above

Sources: pib

Yoga - International Day of Yoga

3rd International day of Yoga was celebrated on June 21st across the world.

Mains   : GS 1 Indian Heritage and Culture,

The UN had declared June 21 as International Day of Yoga. This year, the 3rd International Day of Yoga was being observed.

About Yoga

The special techniques transcending the sense and ordinary mind created by Indian sages called Rishis or seers are , collectively called yoga.

- Yoga literally means the union of the two principal entities.
- The origin of yoga is found in the Yogasutra of Patanjali believed to have been written in the second century BC.
- By purifying and controlling changes in the mental mechanism, yoga systematically brings about the release of purusha from prakriti. Yogic techniques control the body, mind and sense organs. Thus this philosophy is also considered a means of achieving freedom or mukti. This freedom could be attained by practising self-control (yama), observation of rules (niyama), fixed postures (asana), breath control (pranayama), choosing an object (pratyahara) and fixing the mind (dharna), concentrating on the chosen object (dhyana) and complete

dissolution of self, merging the mind and the object (Samadhi).
- Yoga admits the existence of God as a teacher and guide.

On December 1, 2016, Yoga was listed as UNESCO's Intangible cultural heritage.

Celebrating Yoga

Mobile app "Celebrating Yoga" developed by Department of Science & Technology, was launched. The purpose of the APP is to popularise Yoga and encourage people to participate in it for a scientifically healthy living. Celebrating Yoga provides a platform to share information and insights about peoples' participation in Yoga activities on the occasion of the International Yoga Day 2017; create awareness and encourage a scientifically healthy living.

Prime Minister's Award for Outstanding Contribution to Promotion and Development of Yoga announced

The Ramamani Iyengar Memorial Yoga Institute has been selected as the first recipient of the Prime Minister's Award for outstanding contribution to promotion and development of Yoga. The institution of the award was announced by the Prime Minister on the occasion of the Second International Day of Yoga at Chandigarh on 21st June, 2016. The Ramamani Iyengar Memorial Yoga Institute has worked to spread Yoga, internationally, over a period of 4 decades. The Institute has published books on Yoga and these have been translated into multiple languages. There are thousands of Iyengar Yoga teachers popularising and propagating yoga across the world.

Prelims perspective

Model questions

With regard to Yoga which of the following statements is/are correct?
1. The International day of Yoga is celebrated on March 22nd
2. The origin of yoga is found in the Yogasutra of Patanjali
3. Yoga was listed as UNESCO's intangible cultural heritage

Select the correct answer using the codes given below.
a. 1 and 2 only
b. 2 and 3 only
c. 1 and 3 only
d. All of the above

Mains perspective

Model questions

Indian Culture is an integral part of UPSC Mains Examination. Knowing the history means you are no more in the dark and it will give any extra edge while writing the answers. Visit our IAS preparation page to see previous year questions.

Sources: Business Standard NIOS

Smart city mission - Centre announces 30 more Smart Cities
Thirty more cities from across the country have been added to the Centre's Smart Cities Mission, with a proposed investment of Rs.57,393 crore in various projects under the scheme.
Mains   : GS 1 urbanization, their problems and their remedies.
Highlights
- On the occasion of the second anniversary of the launch of the Smart Cities Mission, the central government announced the new cities added to the scheme
- The total number of cities in the list of smart cities became 90 which were selected from 23 States and four Union Territories.
- The proposed investment in these 30 cities was Rs.57,393 crore under various smart city plans.

What are smart cities?
- A 'smart city' is an urban region that is highly advanced in terms of overall infrastructure, sustainable real estate, communications and market viability.
- It is a city where information technology is the principal infrastructure and the basis for providing essential services to residents.
- There are many technological platforms involved, including but not limited to automated sensor networks and data centres.

According to the documents released on the Smart Cities website, the core infrastructure in a smart city would include:
1. Adequate water supply
2. Assured electricity supply
3. Sanitation, including solid waste management
4. Efficient urban mobility and public transport
5. Affordable housing, especially for the poor
6. Robust IT connectivity and digitalisation
7. Good governance, especially e-Governance and citizen participation
8. Sustainable environment
9. Safety and security of citizens, particularly women, children and the elderly
10. Health and education

Where did the idea come from?
- The concept of smart cities originated at the time when the entire world was facing one of the worst economic crises.
- In 2008, IBM began work on a 'smarter cities' concept as part of its Smarter Planet initiative. By the beginning of 2009, the concept had captivated the imagination of various nations across the globe.
- Countries like South Korea, UAE and China began to invest heavily into their research and formation.
- Today, a number of excellent precedents exist that India can emulate, such as

those in Vienna, Aarhus, Amsterdam, Cairo, Lyon, Málaga, Malta, the Songdo International Business District near Seoul, Verona etc.

TOTAL FUNDS FOR 30 SMART CITIES
₹57,393 CRORE (₹46,879 CRORE for core infrastructure and ₹10,514 CRORE for technology-based solutions)

Launched on June 15, 2015
Government proposes to develop 100 smart cities under the mission

Under the Smart City Mission, the Centre provides ₹500 CRORE to each city over a period of five years for implementing various projects.

SMART CITIES MISSION

100 CITIES to be covered

- 59 OF THE 60 cities have incorporated special purpose vehicles

- 50 CITIES appointed project management consultants

- Period: 2015-2020 (Launch date: 25th June 2015)

- 800 PROJECTS of ₹33,643 crore in various states of implementation

- Total mission outlay: ₹48, 000 CRORE (As of May-end)

- 57 PROJECTS worth ₹941 crore completed

- Components covered: Area-based development and pan-city smart solution

- 116 PROJECTS of ₹4,476 crore started

- ₹1.33 LAKH CRORE investments proposed

- 182 PROJECTS of ₹9,769 crore tendered

Status as on June 16

- 439 PROJECTS of ₹18,457 crore, DPR prepared

Source: Union Urban Development Ministry

Image : The Hindu

Prelims perspective
Model questions
Which of the following statements regarding smart cities is/are correct?
1. The concept of smart cities was developed by India based think tank National Council of Applied Economic Research – New Delhi
2. Under smart city mission Centre will provide 500Cr to each city over a period of five years.
3. Information technology is the principal infrastructure in smart cities
Select the correct answer using the codes given below
   a. 1 and 2 only

b. 2 and 3 only
c. 1 and 3 only
d. All of the above

Mains Perspective

Model questions

Can smart cities be the answer to the problems posed by rapid urbanization? Give your opinion.

Sources: The Hindu The Hindu pib

City Liveability Index launched

The Ministry of Urban Development launched the 'City Liveability Index' for measuring the quality of life in 116 major cities including smart cities, capital cities and cities with a population of above one million each.

Mains : GS 1 urbanization, their problems and their remedies.

What is City liveability Index?

- The Index is a Common Minimum Reference Framework to enable the cities know where they stand in terms of quality of life and the interventions required to improve the same
- It measures the quality of life in 116 major cities including smart cities, capital cities and cities with a population of above one million each.
- In a first of its kind Index to be introduced in the country,

What are the criteria used to assess the cities?

- Cities will be assessed on a comprehensive set of 79 parameters.
- The parameters aims to capture the extent and quality of infrastructure including availability of roads, education and health care, mobility, employment opportunities, emergency response, grievance redressal, pollution, availability of open and green spaces, cultural and entertainment opportunities etc.
- After selecting the agency for undertaking this assessment next month, data collection will be completed in the next about six months.

Urban reforms

- The Ministry of Urban Development disbursed Rs.500 cr as incentive to 16 States that performed well in implementing urban reforms during 2016-17.
- Progress in respect of reforms like e-governance, Audit of accounts, Tax revision policies and extent of tax revenue collection, Energy and Water Audit, Establishing State Level Financial Intermediaries for resource mobilization, Credit Rating etc., was taken into account.
- Andhra Pradesh topped the list scoring 96.06% marks with Odisha and Jharkhand coming 2nd and 3rd.
- Marks scored by these States were considered for deciding the quantum of incentive with high scorers getting more.

Prelims perspective

Model questions

Which of the following statements regarding City liveability index is/are correct?

1. It aims to measure quality of life in cities.
2. Education, healthcare and employment opportunities are parameters used to measure city liveability index

Select the correct answer using the codes given below

a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Sources: The Hindu pib

Curtain raiser for second edition of Slum Daud

Minister of State (I/C) for Youth Affairs and Sports Vijay Goel led the curtain raiser of the second edition of the Slum Daud. The Slum Yuva Daud is part of the Adopt Slum Campaign initiated by the Ministry of Youth Affairs & Sports and Nehru Yuva Kendra Sangathan. Under the campaign mini-fests in slums with the themes of Swachhta, Digital India, Beti Bachao Beti Padao etc. will be organized and it will aim at creating model slums and create groups of youth who will work as agents of change to work for the development of their respective slums/areas.

Forum set up to resist child marriage

Children who have resisted parental and societal pressure to get married before the legal age have joined hands to bring an end to the regressive practice in Odisha.

Mains: GS 1 Social empowerment, communalism, regionalism & secularism.

Highlights of the programme

● As many as 33 boys and girls recently formed the 'Odisha Child Marriage Resistance Forum' and resolved to prevent untimely marriages and spread awareness among parents.

● ActionAid, an international voluntary organization, and UNICEF have come forward to support the initiative.

● The members of the forum - girls and boys who resisted child marriages - will now track child marriages in their locality, inform anganwadi workers and together, they would try to persuade parents to reject marriage proposals for their children. Besides, they would also inform the respective Child Development Project Officers, who are designated government officials, to stop child marriage," said Ghasiram Panda of ActionAid.

Despite modern times and a massive awareness programme, child marriages continue to take place in Odisha.

Mains Perspective

How far Juvenile Justice Act and other child protection laws helped to reduce the menace of child marriages in India?

Sources : The Hindu

Rajasthan leads in child marriages

Even though there has been a decline in child marriage across the country, research by Young Lives in coordination with the National Commission for Protection of Child Rights (NCPCR) has revealed that Rajasthan has reported the highest incidence of child marriages. The study, based on the 2011 Census, states that 2.5% of marriages of minor girls were reported in Rajasthan, which is followed by 15 States, including Meghalaya, Arunachal Pradesh, Bihar, Uttar Pradesh, Gujarat, Sikkim, Madhya Pradesh, West Bengal, Nagaland, Assam, Maharashtra, Tripura, Dadra & Nagar Haveli and Karnataka According to the Census study, 12.9% of girls got married in the age of 10-17 years and 43.6% between 18-20 years. However, only 4.9% of boys got married in the 10-17 years age group and 11.2 % in the 18-below 21 age group.

President of India launches mobile app 'Selfie with Daughter'

The President of India, launched a mobile Application 'Selfie with Daughter' at Rashtrapati Bhavan. Selfie-with-Daughter has become a world-wide movement against female foeticide and sex selection. The App is an innovative concept and an act of gentle persuasion. The 'Selfie with Daughter' campaign was started by Shri Sunil Jaglan in June 2015 in village Bibipur, Jind, Haryana. The aim of the campaign is to motivate society to feel proud to be parents of a girl child which will result in improving the child sex ratio.

GS 2 Indian Polity and International Relations

'Preventive detention no quick fix'

If the power is misused or abused, it will stand vitiated, says Supreme Court

Mains : GS2-Indian Constitution- historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

Facts of the case: a seed manufacturer in Telangana was taken into preventive detention by the authorities on the allegation that he is selling spurious chilli seeds to poor farmers.

Supreme Court on Preventive Detention

- Detention of a person was a serious matter affecting the liberty of the citizen.
- Preventive detention cannot be resorted to when sufficient remedies are available under the general laws of the land for any omission or commission under such laws.

- The order of preventive detention, though based on the subjective satisfaction of the detaining authority, is nonetheless a serious matter, affecting the life and liberty of the citizen under Articles 14, 19, 21 and 22 of the Constitution.
- The power being statutory in nature, its exercise has to be within the limitations of the statute, and must be exercised for the purpose the power is conferred.
- If the power is misused, or abused for collateral purposes, and is based on grounds beyond the statute, takes into consideration extraneous or irrelevant materials, it will stand vitiated as being in colourable exercise of power.
- In the above case, since a preventive detention order was passed, bail wasn't available for him. The Court observed that the State Government faulted in the reasoning.
- Preventive detention of a person by a State after branding him a 'goonda' merely because the normal legal process is ineffective and time-consuming in 'curbing the evil he spreads' is illegal.

Constitutional Provisions

Art 22 of the Indian Constitution: No law providing for preventive detention shall authorise the detention of a person for a longer period than three months unless (a) an Advisory Board consisting of persons who are, or have been, or are qualified to be appointed as, Judges of a High Court has reported before the expiration of the said period of three months that there is in its opinion sufficient cause for such detention.

(b)When any person is detained in pursuance of an order made under any law providing for preventive detention, the authority making the order shall, as soon as may be, communicate to such person the grounds on which the order has been made and shall afford him the earliest opportunity of making a representation against the order.

Sources: The Hindu

India has 31% of world's poor kids: report

Of the country's 217 million children, nearly 50% endure multidimensional poverty, says Oxford survey

Mains : GS 2 Issues relating to poverty and hunger.

Highlight of the report

- About 31% of the world's "multidimensionally poor" children live in India,

A "multidimensionally poor" child is one who lacks at least one-third of ten indicators, grouped into three dimensions of poverty: health, education and standard of living.

- In terms of countries, fully 31% of the 689 million poor children live in India, followed by Nigeria (8%), Ethiopia (7%) and Pakistan (6%).
- Out of India's 217 million (21.7 crore) children, 49.9% were multidimensionally poor.
- According to the study, 87% of the multidimensionally poor children lived in South Asia (44 percent) and Sub-Saharan Africa (43%).

THE POOR HALF

A report, based on the Multidimensional Poverty Index (MPI), claims that around 689 million of poor people in 103 low and middle income nations are 'children'. Around 31% (217 mn) of those children are from India - largest contributor in terms of absolute numbers - among those surveyed.

Trickle down numbers

5,400 mn people studied

1,450 MN ARE POOR PEOPLE

689 MN ARE POOR CHILDREN

217 MN POOR CHILDREN IN INDIA

• MPI is a mix of health indicators (nutrition and mortality), education indicators (years of schooling, attendance) and living standard (cooking fuel, sanitation, drinking water, electricity, etc.)

• In 36 nations, including India, at least half of all children are MPI poor. In Ethiopia, Niger and South Sudan, over 90% of children are MPI poor.

Number of poor children (in thousands)
- SOUTH ASIA
- SUB-SAHARAN AFRICA
- EAST ASIA AND THE PACIFIC
- ARAB STATES

India 2,16,868; China 12,066

% of poor among country's children population
S.Sudan 92.91%; Niger; Ethiopia; Chad; Burkina Faso; Burundi; Sierra Leone; Somalia 83.07%; C A R; Mali 79.75%
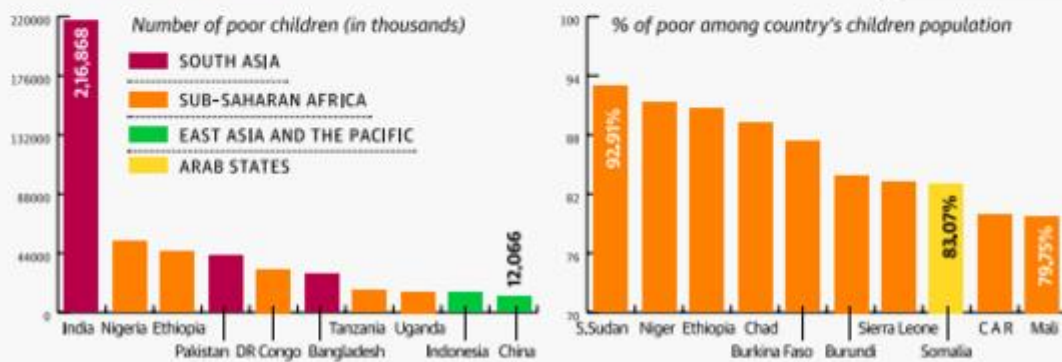
Source: Global Multidimensional Poverty Index 2017 from the Oxford Poverty and Human Development Initiative

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About the study

The survey titled 'Global Multidimensional Poverty Index [MPI],was published by Oxford Poverty and Human Development Initiative (OPHI).

OPHI is an economic research centre at the Oxford University, and the study is based on a survey conducted among 103 countries.

Prelims perspective

Model questions

Global Multidimensional Poverty Index is published by

    a. World Bank

    b. UNDP

    c. Oxford Poverty and Human Development Initiative

    d. International Food Policy Research Institute

Mains Perspective

Similar questions *[UPSC Mains 2015]*

Though there have been several different estimates of poverty in India, all indicate reduction in poverty over time. Do you agree? Critically examine with reference to urban

and rural poverty indicators.
Sources: The Hindu

Commerce Ministry to redefine focus

The Commerce Ministry has sought to shed from its portfolio non-core areas including Foreign Trade Policy (FTP) implementation, as well as administrative control over commodity boards and certain Public Sector Undertakings (PSU) such as MMTC, STC and PEC.

Mains : GS 2 Structure, organization and functioning of the Executive and the Judiciary Ministries and Departments of the Government

Why commerce ministry is redefining focus?

- The ministry aims to better utilise resources in core focus areas such as formulation of foreign trade policy and trade negotiations with other countries.

Significance of the move

- The Ministry's move comes at a time when India's goods and services exports are impacted by rising incidents of protectionism, trade disputes and weak global demand across the world.
- Negotiations on the WTO's Doha Development Round as well as India's proposed FTAs including RCEP and the one with the European Union are at a crucial stage.

Other details

- The Commerce Ministry has asked the Central Board of Excise and Customs (CBEC) to take over the role of the nodal body for FTP implementation.

Presently the Directorate General of Foreign Trade (DGFT) attached to the Commerce Ministry and is responsible for formulating and implementing the FTP.

- Commerce Ministry is also keen to transfer to the Agriculture and Farmer Welfare Ministry the administrative control it over the commodity boards (Coffee Board, Tea Board, Rubber Board, Spices Board, and Tobacco Board) as well as the related responsibilities.

Prelims perspective

Model questions
Which of the following are under the administrative control of Commerce ministry?

1. Tea board
2. Foreign trade policy
3. Spices board

Select the correct answer using the codes given below.

a. 1 and 2 only
b. 2 and 3 only
c. 1 and 3 only
d. all of the above

Sources: The Hindu

DGFT may come under Revenue dept.

The Centre is considering a proposal to shift the entire Directorate General of Foreign Trade (DGFT) office to the Department of Revenue (DoR) from the Department of Commerce (DoC)

Mains   : GS 2 Structure, organization and functioning of the Executive and the Judiciary Ministries and Departments of the Government

Why the proposal?

- It is as part of measures to simplify processes relating to export and import.
- It is presented as a major trade facilitation measure and in line with the Centre's 'Ease of Doing Business' initiative
- The CBEC was getting several complaints from those in the foreign trade sector saying the
- current division of trade facilitation-related work between Department of Commerce and Department of Revenue is resulting in 'red tapism' and delays.
- The commerce ministry aims to better utilise resources in core focus areas such as formulation of foreign trade policy and trade negotiations with other countries.

What are DGFT's functions?

- *Presently the Directorate General of Foreign Trade (DGFT) attached to the Commerce Ministry and is responsible for formulating and implementing the FTP.*
- It is manned mainly by the Indian Trade Service (ITS) cadre officials, but is usually headed by an Indian Administrative Service (IAS) officer.

Significance

- If the proposal, that the CBEC put forward, is accepted, the DGFT will be placed within the DoR and staffed entirely by Indian Revenue Service (IRS) officials.
- CBEC currently houses the Secretariat of the inter-ministerial National Committee on Trade Facilitation (NCTF), which was established in August 2016, consequent to India ratifying the WTO's Trade Facilitation Agreement (TFA) in April 2016.

Prelims perspective

Model questions

Directorate General of Foreign Trade (DGFT) is under the administrative control of which ministry?

a. Ministry of Commerce
b. Ministry of Finance
c. Ministry of Home affairs
d. Ministry of External Affairs

Sources: The Hindu The Hindu

Fast-track customer service, Railways style – Social media for improving customer service

Social media has changed the customer service and Indian railway's social media division is active in resolving complaints.

Mains   : GS 2 citizens' charters, transparency & accountability and institutional and other measures.

Highlights

- 150 staffers across 68 divisions monitor passenger messages on social media round the clock
- The organisation has a department working solely on social media interaction, with around 150 people over 68 divisions monitoring Twitter, Facebook and Instagram accounts.
- The number of followers and messages is increasing day by day
- The team reacts in real time, immediately forwarding messages to divisions concerned for further action.

Getting social with customers

Indian Railways has 150 people for online complaint redress

- @RailMinIndia has 2.75 million followers
- The Railways gets 6,500 mentions a day on Twitter
- About half of these are complaints
- The Railways gets around 100 tweets a day seeking help

Railway Minister Suresh Prabhu's personal Twitter handle has over 3 million followers

- They are trained to react quickly in emergencies, which could range from an urgent need for medical help to simpler requests like a parent needing milk for a baby.
- Each and every call and letter to the Ministry is monitored and made a note of , which the Minister reviews on a regular basis.

- The expected response time from the social media team is around 30 minutes.
- The social media for passenger grievance redressal which is accessible to all, and also transparent s to track the resolution of any concern.

Mains Perspective

Model questions *[UPSC Mains 2013]*

Though Citizens' charters have been formulated by many public service delivery organizations, there is no corresponding improvement in the level of citizens' satisfaction and quality of services being provided. Analyse.

Sources: The Hindu

Diabetes awareness

A large community-based study involving over 57,000 adults from 14 States and a Union Territory (Chandigarh) in the country has revealed that the average prevalence of diabetes in these States stands at 7.3%.

Mains : GS 2 Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Highlights of the study

- The prevalence varied from 4.3% of the population in the case of Bihar, to 10.4% in Tamil Nadu; Chandigarh was found to have a prevalence of 13.6%.
- Economically more developed States had a higher prevalence than economically less developed States.
- The prevalence of pre-diabetes was found to be high

Pre-diabetes is a condition characterized by slightly elevated blood glucose levels, regarded as indicative that a person is at risk of progressing to Type 2 diabetes.

- More than 47% studied were unaware of having diabetes until they tested.
- The prevalence was higher in urban areas
- The northeast States registered lesser prevalence compared with other States studied (8.3%).
- Awareness is high among the rich and they are taking care of themselves, while diabetes is hitting the poorer people in several States

Diabetes

A group of diseases that result in too much sugar in the blood (high blood glucose).

Most common types

1. **Type 2 diabetes :** A chronic condition that affects the way the body processes blood sugar (glucose).
2. **Type 1 diabetes :** A chronic condition in which the pancreas produces little or no insulin.
3. **Prediabetes :** A condition in which blood sugar is high, but not high enough to be type 2 diabetes.
4. **Gestational diabetes :** A form of high blood sugar affecting pregnant women.

Mains Perspective
Model questions
The prevalence of noncommunicable diseases poses new challenges to India's health sector. Discuss
Sources: The Hindu Google health card

Linking of PAN to Aadhaar
The Supreme Court upheld the validity of an Income Tax law amendment linking PAN with Aadhaar for filing tax returns and making Aadhaar or Aadhaar enrolment slip compulsory to apply for a Permanent Account Number (PAN) card.
Mains : GS 2 Structure, organization and functioning of the Executive and the Judiciary
Important aspects of governance, transparency and accountability, e-governance-applications, models, successes, limitations, and potential; citizens charters, transparency & accountability and institutional and other measures.

- The court issued a "partial stay" on a provision which mandates that those who do not link Aadhaar with PAN by July 1 would face the consequences of invalidation of their PAN
- The Centre said in an affidavit that the fundamental right of identity and various e-governance initiatives of the government to provide food security, livelihood, jobs and health to the "teeming masses" cannot be sacrificed at the altar of right to privacy of an "elite" few who have neither applied for nor want Aadhaar.

Earlier government orders making Aadhar mandatory

One card for everything?

Aadhaar is becoming mandatory for a slew of services

No. of cards issued:
108 crore, according to Finance Minister Arun Jaitley

As many as 31 schemes have been identified by the Centre for mandatory use of Aadhaar. Carry your card if you want to:
- File income tax returns or apply for PAN
- Avail benefits under the Pradhan Mantri

Kaushal Vikas Yojana for skill development
- Get subsidised grain under the National Food Security Act
- Avail jobs under the MGNREGA
- Claim benefits under the Employees Pension Scheme

Aadhaar has biometric details, so its chances of misuse become minimal. When the country has so much technology, and when it is being put to use, why create such a hue and cry about it? ARUN JAITLEY, Union Finance Minister

Image : The Hindu

SELFLEARN

- The affidavit was the government's response to petitions filed by several persons, against 17 government notifications allegedly making Aadhaar mandatory to access welfare schemes and benefits
- Dismissing claims that mass Aadhaar enrolment was a precursor to a 'surveillance state', the government said that "by design, the technology architecture of the UIDAI precludes even the possibility of profiling individuals for tracking their activities including the purpose for which they may have used Aadhaar."

Aadhaar impact in numbers

Centre pushed for Aadhaar in the SC by providing official statistics on its impact on a multitude of schemes across the country

PDS Aadhaar led to the deletion of 2.33 crore fake ration cards and saved ₹14,000 crore up to December 2016

LPG Over 3 crore fake/duplicate LPG connections weeded out, resulting in savings of over ₹26,000 crore upto December 2016

PENSION Seeding of Aadhaar with Jeevan Pramaan sees 71.17 lakh pensioners use the scheme in 2016. Digital signatures used in National Pension Scheme accounts

BANKING Over 7.35 crore bank accounts opened using e-KYC service. Of the newly opened 28.44 crore Jan Dhan accounts, over 18.97 crore accounts used Aadhaar

MNREGS Aadhaar number linked to over 8.80 crore active MNREGS workers of the existing database of 10.38 crore active workers

DBT Direct Benefit Transfer scheme via Aadhaar saved ₹49,560 crore in 2014-15 and 2015-16

PASSPORTS Over 1.36 crore residents obtained their passports using Aadhaar

INCOME TAX Aadhaar enabled income tax payers to e-verify their tax returns using Aadhaar OTP authentication

BIOMETRIC ATTENDANCE Aadhaar-enabled biometric attendance system is now available in 660 organisations

Image : The Hindu

SOURCE: CENTRE'S AFFIDAVIT IN SUPREME COURT

Supreme Court's order on use of Aadhaar
- An earlier Supreme Court allowed voluntary use of Aadhaar for getting benefits
- It added that no citizen could be denied a service or subsidy for not having an Aadhaar or unique identity number.
- The government's order violated Supreme court's earlier judgement.

Provision in Aadhar act supporting the government's move
- The Aadhaar Act provides that the Central/State Government while making expenditure from Consolidated Fund of India for any subsidy, may require such individual to furnish proof of possession of Aadhaar number or undergo authentication.

Mains Perspective
Model questions *[UPSC Mains 2013]*
Electronic cash transfer system for the welfare schemes is an ambitious project to minimize corruption, eliminate wastage and facilitate reforms Comment.
Sources: The Hindu The Hindu The Hindu The Hindu The Hindu The Hindu The Hindu Businessline

Sustainable Action for Transforming Human capital [Important]
NITI Aayog unveiled a programme called SATH along with the state governments to kick start the process of transforming education and health sectors.

Prelims : Indian Polity and Governance - Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.

Mains : GS 2 Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

What is SATH?

- SATH, stands for 'Sustainable Action for Transforming Human capital'
- It will entail the government think tank to provide technical support to State governments in the two sectors - Health and Education.

Vision

The vision of the program is to initiate transformation in the education and health sectors.

Highlights of the programme

- The program addresses the need expressed by many states for technical support from NITI .
- SATH aims to identify and build three future 'role model' states for health systems.
- NITI will work in close collaboration with their state machinery to design a robust roadmap of intervention, develop a program governance structure, set up monitoring and tracking mechanisms, hand-hold state institutions through the execution stage and provide support on a range of institutional measures to achieve the end objectives.

Who implements the programme?

The program will be implemented by NITI along with McKinsey & Company and IPE Global consortium, who were selected through a competitive bidding process.

How model states are selected?

- To select the three model states, NITI defined a three-stage process – expression of interest, presentations by the states and assessment of commitment to health sector reforms. NITI invited all states and UTs to participate in the program.
- The program will be launched in the three selected states after the signing of MoUs.

Prelims perspective

Model questions

SATH Programme recently in news is related to

a. welfare of adolescents
b. Poverty eradication
c. development of health and education sector
d. sustainable development

Sources: The Hindu pib

Tele-Law through CSCs

In its effort to make legal aid easily accessible to the marginalized communities and citizens living in rural areas, the Government of India has launched the 'Tele-Law'.

Mains   :   GS 2 e-governance- applications, models, successes, limitations, and potential;

What is Tele Law?
- 'Tele-Law' will enable people to seek legal advice from lawyers through video conferencing available at the Common Service Centres (CSC).
- Under the scheme, a portal called 'Tele-Law' will be launched, which will be available across the Common Service Centre (CSC) network. This will connect the citizens to legal service providers with the help of technology enabled platforms.
- Additionally, law school clinics, District Legal Service Authorities, voluntary service providers and Non-Government Organisations working on legal aid and empowerment can also be connected through the CSCs anywhere and anytime,

Who will be providing lawyers?

The National Legal Services Authority (NALSA) will provide a panel of lawyers from State capitals, who will be available through video conferencing to provide legal advice and counselling to the applicants, across the 1000 Common Service Centres (CSC).

Implementation of project
- The Ministry of Law and Justice is partnering with the Ministry of Electronics and Information Technology (MeitY), to implement the project.
- 'Tele-Law' scheme will be tested as a pilot across 500 Common service Centres (CSC) in Uttar Pradesh and Bihar before scaling up.

Other details

Under this scheme, every Common Service Centre (CSC) will engage a Para Legal Volunteer (PLV), who will be the first point of contact for the rural citizens and will help them in understanding the legal issues,.These PLVs will help the applicant connect with a lawyer through the video conferencing facility at the CSC and will keep a track of the progress of the applicants' cases and grievances and maintain a record.

Other details

This scheme comes as a continuation to the Access to Justice Project for Marginalized Persons which is being implemented by Department of Justice and United Nations Development Programme (UNDP).

Prelims Perspective

'"Tele Law", sometimes seen in the news, is related to

a. Lok Adalats

b. Providing free legal services to the poor and vulnerable

c. Appointing advocates for free to the needy

d. Reducing pendency of cases across selected districts,

Mains Perspective

Model questions
Legal services still remain out of reach for many Indian citizens despite having several mechanisms constituted for the purpose. Comment
Sources: pib pib

Web Application for Legal Services to Prisoners
NALSA launched a Web Application for free Legal Services to Prisoners and the Legal Services Management System developed through the NIC.
Mains : GS 2 Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.
Significance
- Through Web Application the State Legal Services Authorities and District Legal Services Authorities shall feed the data for each individual prison inmate in the jails within their jurisdiction.
- The software will be able to generate reports showing total number of inmates, number of inmates unrepresented, number of inmates represented by legal services lawyers and number of inmates represented by private lawyers.
- The application shall make the legal services system more transparent.

National Legal Services Authority (NALSA)
- The National Legal Services Authority (NALSA) has been constituted under the Legal Services Authorities Act, 1987 to provide free Legal Services to the weaker sections of the society and to organize Lok Adalats for amicable settlement of disputes.
- The Chief Justice of India is patron-in-chief of NALSA while second seniormost judge of Supreme Court of India is the Executive-Chairman.
- In every State, State Legal Services Authority has been constituted to give effect to the policies and directions of the NALSA and to give free legal services to the people and conduct Lok Adalats in the State.
- The State Legal Services Authority is headed by Hon'ble the Chief Justice of the respective High Court who is the Patron-in-Chief of the State Legal Services Authority.
- In every District, District Legal Services Authority has been constituted to implement Legal Services Programmes in the District. The District Legal Services Authority is situated in the District Courts Complex in every District and chaired by the District Judge of the respective district..

Prelims perspective
Model questions
Consider the following statements regarding NALSA

1. It is a statutory body
2. It aims to provide legal services to the needy

Select the correct answer using the codes given below

a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Mains Perspective

Model questions

Legal services still remain out of reach for many Indian citizens despite having several mechanisms constituted for the purpose. Comment

Sources: NALSA wikipedia pib

India ratifies ILO pacts on child labour

India ratified two core Conventions of International Labour Organisation (ILO) on child labour – a global commitment to end the worst form of child labour and to ensure minimum basic education to children.

Mains   : GS 2 Issues relating to poverty and hunger.

Ratification of ILO convention 182 and 138

- India ratified ILO Conventions, 138 and 182, which says that the minimum age for employment should not be less than the age of completion of compulsory schooling (14 years of age in India's case) and calls for elimination of the worst forms of child labour, respectively.
- **Significance :** With this India has ratified six out of eight core ILO conventions. Four other conventions were related to abolition of forced labour, equal remuneration and no discrimination between men and women in employment and occupation.
- Countries which ratify any of the ILO conventions have to go through a periodical reporting system every four years.

Child labour (Prohibition and Prevention) Amendment act

- The Central government had enacted a new law — Child labour (Prohibition and Prevention) amendment Act, 2016 – banning employment of child labour below 14 years of age in all occupations and processes.
- It further prohibits employment of adolescents (14-18 years of age) in hazardous occupations.
- However, children were allowed to "help" families in running their domestic enterprises only after school hours.
- The new law linked the age of employment for children to the age of compulsory

education under Right to Education Act (RTE), 2009.

Prelims Perspective

India recently ratified ILO conventions 182 and 132. These conventions are related to

    a. abolition of forced labour

    b. equal remuneration for men and women

    c. rights of industrial workers

    d. Child labour.

Mains Perspective

Model Questions

Examine the main provisions of the National Child Policy and throw light on the status of its implementation. *[UPSC mains 2016]*

Sources: The Hindu pib

POSOCO-IMD Weather Portal for Power Sector & Web Portal 'MERIT'

Union Minister Shri Piyush Goyal launched Weather Portal for Power Sector and MERIT web portal for power sector.

Prelims : Indian Polity and Governance - Constitution, Political System, Panchayati Raj, Public Policy, Rights Issues, etc.

POSOCO-IMD Weather Portal

- Day to day weather variations have an impact on load demand and energy production, transport and distribution management, as well as energy prices.
- The information available in the Portal regarding weather forecast shall help State Discoms to take pro-active steps regarding short term and medium term management processes and supply planning requirements and also for better planning for infrastructure availability to ensure cost effective and reliable supply.

'MERIT' (Merit Order Despatch of Electricity for Rejuvenation of Income and Transparency).

- MERIT portal has been developed by Ministry of Power in association with POSOCO and Central Electricity Authority.
- The MERIT Web portal displays extensive array of information regarding the merit order of Electricity procured by State(s) such as daily state-wise marginal variable costs of all generators, daily source-wise power purchases of respective states/UTs with source-wise fixed and variable costs, energy volumes and purchase prices.
- The web-portal also give information regarding reasons for deviation from merit order such as must run conditions, transmission constraints etc.
- Information available in the Portal shall help State Discoms to optimize their power procurement in more efficient way leading to lower cost of power to consumers.

Prelims perspective
Model questions
MERIT web portal sometimes seen in news is related to
   a. education
   b. health
   c. power sector
   d. None of the above
Sources: pib

Feud traps ₹7,000 cr. mining taxes - District Mineral Foundation
About ₹7,000 crore of potential mining taxes are locked in litigation over the question of whether rules notified under a 2015 mining law are applicable from the date of their notification or from the day the law came into force.
Mains   : GS 2 Government policies and interventions for development in various sectors and issues arising out of their design and implementation.
The News
The Mines and Minerals Development and Regulation Act of 2015 came into force on January 12, 2015, but the District Mineral Fund (DMF) rules under the law were notified in September 2015
What are DMF rules?
The DMF norms mandate that miners must pay 10% of royalties on auctioned mines and 30% of royalties for mines allotted before the auction regime began.
The present issue
Miners had paid about ₹7,000 crore in DMF dues by April this year, but some mining firms had approached the judiciary on the grounds that the rules didn't apply for the interim period from January 2015 till the notification of the DMF rules by different States.
About District Mineral Foundation
   ● District Mineral Foundation (DMF) is a trust set up as a non-profit body, in those districts affected by the mining works, to work for the interest and benefit of persons and areas affected by mining related operations.
   ● It is funded through the contributions from miners.
   ● Its manner of operation comes under the jurisdiction of the relevant State Government.
   ● Setting up of District Mineral Foundations (DMFs) in all districts in the country affected by mining related operations was mandated through the Mines and Minerals (Development & Regulation) Amendment Act, (MMDRA) 2015.
   ● Every holder of a mining lease or a prospecting licence-cum-mining lease shall, in addition to the royalty, pay to the District Mineral Foundation of the district in

which their mining operations are carried on.
- DMF contribution would not be exceeding one-third of royalty
- The Central Government retains the power to prescribe the rates of contribution, though DMF's operation is under state governments.
- Further, using the funds generated by this contribution, the DMFs are expected to implement the Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY), for the welfare of mining areas and affected population.

Prelims perspective
Model questions *[UPSC Prelims 2016]*
What is/are the purpose/purposes of `District Mineral Foundations' in India?
1. Promoting mineral exploration activities in mineral-rich districts
2. Protecting the interests of the persons affected by mining operations
3. Authorizing State Governments to issue licences for mineral exploration

Select the correct answer using the code given below.
(a) 1 and 2 only
(b) 2 only
(c) 1 and 3 only
(d) 1, 2 and 3
Sources: The Hindu Arthapedia

Hydrocarbon Exploration and Licensing Policy (HELP) Govt. unveils new hydrocarbon policy [Important]
The government launched the National Data Repository (NDR) and Open Acreage Licensing Policy (OALP) under the progressive, market driven Hydrocarbon Exploration and Licensing Policy (HELP) of Government of India.

Mains   : GS 2 Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

What is Open Acreage Licensing Policy?
- The OALP, a part of the government's Hydrocarbon Exploration and Licensing Policy (HELP), gives exploration companies the option to select the exploration blocks on their own, without having to wait for the formal bid round from the Government.
- The company then submits an application to the government, which puts that block up for bid.
- The new policy will open up 2.8 million square kilometres of sedimentary basins for exploration and eventual production.

National Data Repository
- National Data Repository has come forth as an integrated data repository of Explorationa and Productions data of the Indian sedimentary basins, in line with the Digital India initiative

The lack of seismic sedimentary basin data has been hampering the oil and gas exploration and production sector and that 52% of India's sedimentary basins have not been appraised yet. The National Data Repository is expected to improve this situation

Hydrocarbon Exploration & Licensing Policy (HELP)

It opens up India' entire sedimentary basin for investment from domestic and foreign players under a simplified, transparent and investor -friendly fiscal and administrative regime.

The key features of HELP

- Single, uniform license for extraction and exploration for all types of hydrocarbon prospects
- Open acreage licensing (OAL) which will permit investors to carve out interested blocks and submit Expression of Interest (EoI), which will be subsequently given through bi-annual bid rounds
- Simple and easy to administer Revenue Sharing Model
- Full marketing freedom and free pricing for crude oil and natural gas
- Exploration allowed during entire contract period
- Zero royalty rates for deep water & ultra-deep water blocks for first 7 years
- Equal weightage to work program and fiscal share
- No oil cess
- Custom duty exemption

Prelims perspective

Model questions

Consider the following statements with reference to Hydrocarbon exploration licensing policy.

1. The earlier revenue sharing model in NELP will be replaced by production sharing model in HELP.
2. The policy envisages a uniform licensing policy for exploration and production of all forms of hydrocarbon.
3. The pricing of the natural gas and crude oil will be fixed by companies in consensus with the government of India.

Which of the above statements is/are correct?

a. 1 only
b. 2 and 3 only
c. 2 only
d. All of the above

Mains Perspective

Model questions

Examine the key features of the new Hydrocarbon Exploration & Licensing Policy. Explain how it will help in resource utilization?

Sources: The Hindu pib pib

New training programme 'COMMIT'

The Centre has launched a new training programme Comprehensive Online Modified Modules on Induction Training (COMMIT) for State Government officials.

Mains   : GS 3 Role of civil services in a democracy.

Comprehensive Online Modified Modules on Induction Training (COMMIT)

Objective

To improve the public service delivery mechanism and provide citizen centric administration through capacity building of officials who interact with the citizens on day-to-day basis.

Highlights

- The new training programme will supplement the earlier training programme.
- **Advantage :** COMMIT is cost effective and has the potential to cover about 3.3 lakh officials annually, compared to 10,000 officials under existing 12-Day Induction Training Programme (ITP).
- COMMIT will be launched in 6 States of Assam, Haryana, Maharashtra, Tamil Nadu, Telangana and West Bengal initially on pilot basis during the financial year 2017-18 and within next year it is expected to cover all India level.
- COMMIT has been designed in such a way that it allows to translate the content in local/regional languages.
- The COMMIT programme, developed by DoPT in collaboration with United Nations Development Programme (UNDP), will supplement the existing 12-Day ITP launched in 2014-15 for newly recruited state Government officials to develop in them Generic & Domain specific competencies.
- It will be of 28 hours duration which will include e-Modules as well as face-to-face training Representatives from UNDP and senior officers from DoPT were also present during the occasion.

Prelims perspective

Model questions

COMMIT programme launched by central government aims to

a. Train tax officials regarding implementation of GST
b. improve the public service delivery mechanism by training state government officials
c. Improve quality of central government employees
d. provide ethical training to central government employees

Sources:pib

The QS world University Rankings

The President of India, received the 2018 edition of the QS World University Rankings brought out by the Education Promotion Society of India (EPSI) today (June 9, 2017) at

a function held at Rashtrapati Bhavan. Three Indian institutions – IIT Delhi(172) and IISc Bangalore (190), IIT Bombay(179) secured ranks within the coveted top 200 with IISc Bangalore being now ranked 6th globally for *Citations per Faculty*.

Army's Super-40 in Kashmir Strike Big

Army's Super - 40 initiative for coaching the J&K youth for Engineering Entrance Exams have enabbled 26 boys and two girls from the state crack the IIT-JEE Mains Exam 2017. Nine students have successfully qualified the IIT Advanced Exam. The coaching is conducted at Srinagar by Army, its training partner Centre for Social Responsibility & Learning (CSRL) and Petronet LNG. This was also the first batch in which five girls from Kashmir valley were coached, out of which two had qualified in the JEE Mains.

Assistance to Disabled Persons for purchase/fitting of Aids/appliances (ADIP Scheme)

The biggest ever 'Samajik Adhikarita Shivir for Distribution of Aids & Assistive Devices to Divyangjan' was organised at Rajkot (Gujarat) Under the programme Assistive Aids and Appliances were distributed under ADIP(**Assistance to Disabled Persons for purchase/fitting of Aids/appliances)** scheme of Government of India to Divyangjan during the programme. The main objective of the scheme is to provide latest and modern aids through Artificial Limbs Manufacturing Corporation of India (ALIMCO), and various other bodies to promote physical, social and psychological rehabilitation of Divyangjan.

Cyber crimes against children can now be reported at the POCSO e-Box

Child victims of cyber crimes can now lodge their complaints at National Commission for Protection of Child Rights (NCPCR)'s POCSO e-box. Considering the growing menace of cyber crimes targeting children, NCPCR has now enhanced the scope of POCSO e-box to handle cyber bullying, cyber stalking, morphing of images and child pornography. Child victims themselves or their friends, parents, relatives or guardians can report cyber crimes by pressing the e-box button available at the Commission's website. POCSO e-box is an easy and direct medium for reporting of child sexual abuse under the Protection of Children from Sexual Offences (POCSO) Act, 2012. Developed by NCPCR, POCSO e-box was launched last year.

Election Commission to Launch e Nationwide "Voter Registration Reminder" on Facebook

Election Commission of India (ECI) is launching a 'Special Drive to enrol left out electors, with a special focus on first time electors from, so as to move in the direction of

Commission's motto that 'NO VOTER TO BE LEFT BEHIND' . In order to reach out to maximum eligible voters, the ECI is collaborating with Facebook to launch first Nationwide "Voter Registration Reminder" on 1st July ,2017 . On 1st July, a notification of the "voter registration reminder" will be sent to people on Facebook in India who are eligible to vote. The reminder will be sent out in 13 Indian languages. This is the first time Facebook's voter registration reminder has been rolled out across India. In 2016 and 2017, Chief Electoral Officers made such efforts at state level during their respective state elections.   By clicking on the "Register Now" button on Facebook from 1st July 2017, people will be directed to the National Voters' Services Portal (www.nvsp.in) which will guide them through the registration process.

GS 2 International Relations

India, Spain call for 'zero tolerance' to terrorism
States backing terror should be subjected to global laws'
Mains   : GS2 -Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests
First Indian PM to visit Spain after 1992.
Key Points of the Meet
1. Zero-tolerance to terrorism
States and entities which encourage, support, finance terrorism, provide sanctuary to terrorists and glorify terrorism should be subjected to international laws, including restrictive measures.
2.MOUs signed in following areas
-    organ transplantation
-     cybersecurity
-     renewable energy
-     civil aviation
-    transfer of sentenced persons
-    visa waiver for holders of diplomatic passports.
Trade between Spain and India
● Spain is the 12th largest investor in India and the seventh largest trading partner in the EU.
● There are more than 200 Spanish companies in India that are actively involved in road construction, railways, wind power, defence and smart cities.
Sources: The Hindu

Bilateral Investment treaties - 'Investment pact system needs review' -
A senior government official spoke about the need to review and reform the system of

International Investment Agreements (IIA) — including the Investor-State Dispute Settlement (ISDS) mechanism

Mains : GS 2 Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests

Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

Why International Investment agreements should be reviewed?
- The present IIA has a pro-investor bias — with an aim to protect only capital
- It does not aim to protect labour, indigenous people, migrants, or consumers, all of whom have linkages with investment
- There is little empirical evidence establishing a link between the existence of BITs and FDI flows.
- The current ISDS mechanism is ad hoc, unpredictable and often arbitrary, needs urgent review
- The current ISDS regime can be quite costly for host countries.

The way forward
- There should be a greater focus on other alternative modes of dispute settlement, including domestic remedies or compulsory negotiation and mediation, wherever possible.
- Direct access to international mechanisms should be allowed only when there are no local remedies.

The ISDS mechanism is contentious as it enables companies to drag governments to international arbitration without exhausting the local remedies and seek massive amounts as compensation citing losses due to reasons, including policy changes.

- Future IIA regime should incorporate diffferent socio-economic condittions of the host countries.
- The regulatory freedom of governments to pursue measures for welfare or legitimate public policy purposes must not be compromised

Also read : Bilateral Investment treaty
- A **bilateral investment treaty** (**BIT**) is an agreement establishing the terms and conditions for private investment by nationals and companies of one country in another country (For Foreign Direct investments). BITs are established through trade pacts.
- The new model BIT contains an **Investor State Dispute Settlement (ISDS)** mechanism which allows companies to seek international arbitration only when all domestic legal options have been exhausted.

Prelims Perspective

A question can be expected from any of the following areas

The term 'Bilateral investment treaty' is sometimes seen in the news in the context of
   a) Policy measure adopted by countries to curb Black money

b) Curbing of the tax evasion by multinational companies
c) Protecting the FDI's in the foreign country
d) Trade facilitation agreement under WTO

Mains Perspective

Model questions

- While developed nations are pitching for liberalisation of trade in goods what India wants is easy transfer of human resources across borders. Explain how a trade-off between both can be achieved.

Sources: The Hindu Wikipedia

India, Russia ink nuclear plant pact

India and Russia have signed the much-awaited agreement on setting up two more units of a nuclear power plant in Tamil Nadu and decided to give a "new direction" to the defence cooperation.

Mains : GS 2 International relations.

Highlight of India Russia meet

1. The meeting strongly condemned terrorism in all its forms and asserted willingness to fight menace
2. The two countries also decided to hold the first tri-Services exercises, named 'Indra-2017,'
3. Both countries decided to start joint manufacture of frigates, adding to the co-production of Kamov-226 military helicopters.
4. Several issues like terrorism trade and investment were covered in the discussion

Mains Perspective

Model questions

Economic ties between India and Russia is still far below their potential. Elucidate the constraints which are inhibiting the growth in trade ties.

Sources: The Hindu

Five Arab powers sever ties with Qatar

The Arab world's strongest powers cut ties with Qatar over alleged support for Islamists and Iran

Mains : GS 2 International relations

- The move comes two weeks after U.S. President Donald Trump's demand for Muslim states to fight terrorism.
- Saudi Arabia, Egypt, the United Arab Emirates and Bahrain cut relations with Qatar in a coordinated move. Yemen, Libya's eastern-based government and the Maldives joined in later.
- Qatar denounced the move as based on lies about it supporting militants.

An isolationist push

The diplomatic rift is a penalty for Qatar's proximity to Iran

Emir of Qatar Tamim bin Hamad al-Thani.

Flashpoint: Qatar's state-run news agency ran comments by its ruler criticising the mounting anti-Iran sentiment. Riyadh objected to this

The move to ostracise Qatar follows an array of disputes involving

- Qatar's support for the Muslim Brotherhood and Hamas

- Its sponsorship of Al-Jazeera

- Its proximity to Iran, Saudi Arabia's main rival in the Gulf

QATAR:

- Is the biggest exporter of liquefied natural gas

- Will host the FIFA 2022 World Cup

- Has the highest per-capita income ($129,700 a year), and an estimated $335 billion of assets in its sovereign wealth fund

Image : The Hindu
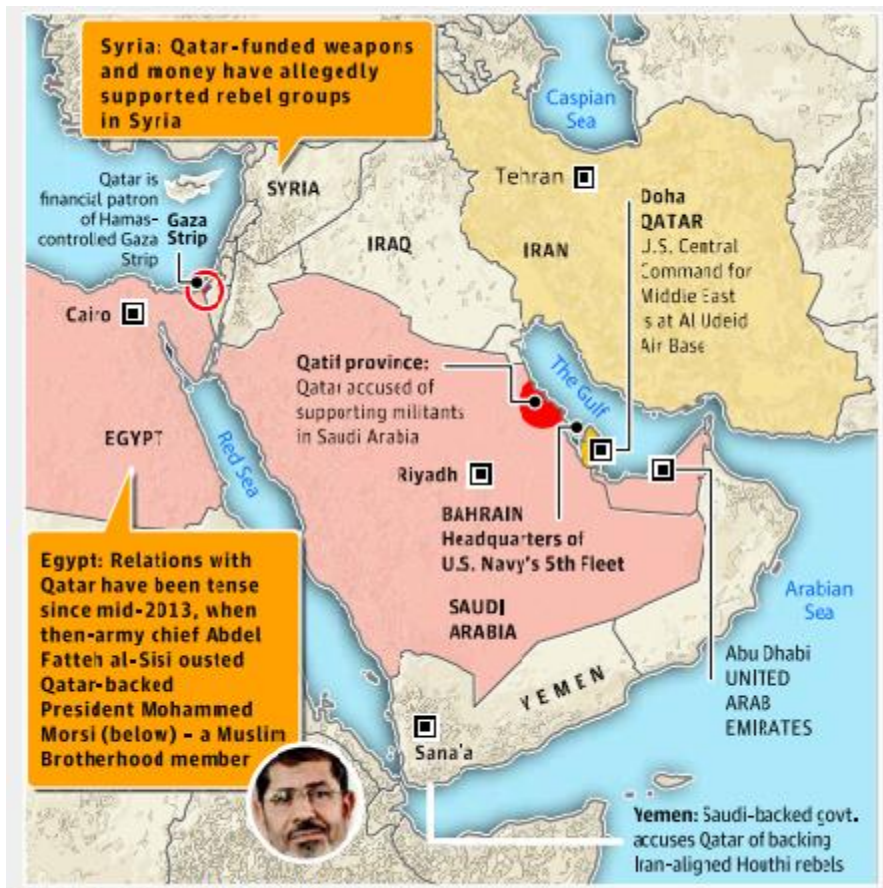
Image : The Hindu

Sources: The Hindu

India to weather Qatar storm now

The move by arab nations to sever ties with Qatar may impact India too.

Mains : GS 2 International relations

How problems in West Asia could affect India?

- While most analysts say the move will not impact India immediately, there will be repercussions if the tensions continue and differences are not resolved.
- India sources more than half of its energy import needs from countries in the Persian Gulf. Six million Indians live and work in West Asia and they sent home about $63 billion.
- Energy imports may affect if Gulf countries follow through with sanctions.
- As in the case of Yemen, Libya, Lebanon and other countries, any tensions in the region have an immediate impact on Indian diaspora.
- India has significant trade ties with Qatar(Qatar is India's 19th biggest trading partner, although its trade ties are much stronger with the UAE and the KSA (who rank 3rd and 4th respectively, with about $49 billion and $26 billion)

- India had hoped for considerable investments from both the UAE and Qatar's Sovereign Wealth Funds.
- The KSA and the UAE are important partners for India on counter-terrorism cooperation and intelligence sharing.
- The KSA, the UAE and Pakistan were the only countries to support the Taliban regime in Afghanistan, and the Qatari capital hosts the Taliban's office to enable it to conduct dialogue, which was supported by the other Gulf countries. It remains to be seen how the latest schism will affect the global war on terrorism.
- The Saudi coalition's decision to cancel Qatar Airways flights to their countries will affect Indian passengers who hoped to use Doha as a hub

Mains Perspective

Model questions

Examine the impact of events happening in West Asia on India.

Sources: The Hindu

UN Ocean Conference opens with calls for united action

UN chief has warned that the state of the oceans will continue to deteriorate unless nations overcome short-term territorial and resource interests.

Mains : GS 2 Important International institutions, agencies and fora- their structure, mandate.

Highlights

The first UN conference on the health of the oceans and seas is ongoing and UN chief has opined that problems of governance must be jointly addressed.

Significance : Protecting the oceans is among the main objectives of the Sustainable Development Goals (SDGs) and conserving and sustainably using marine resources is the springboard for the Ocean Conference

World leaders tackle declining fish stocks

A UN conference on the world's oceans is warning that the number of stocks being caught unsustainably is continuing to rise -- even though overall sea-fishing levels remain steady for the past three decades

GLOBAL FISH PRODUCTION
(tonnes millions)

Farmed

Caught

GLOBAL MARINE FISH STOCKS
(Percentage)

Overfished

Fully fished

Underfished
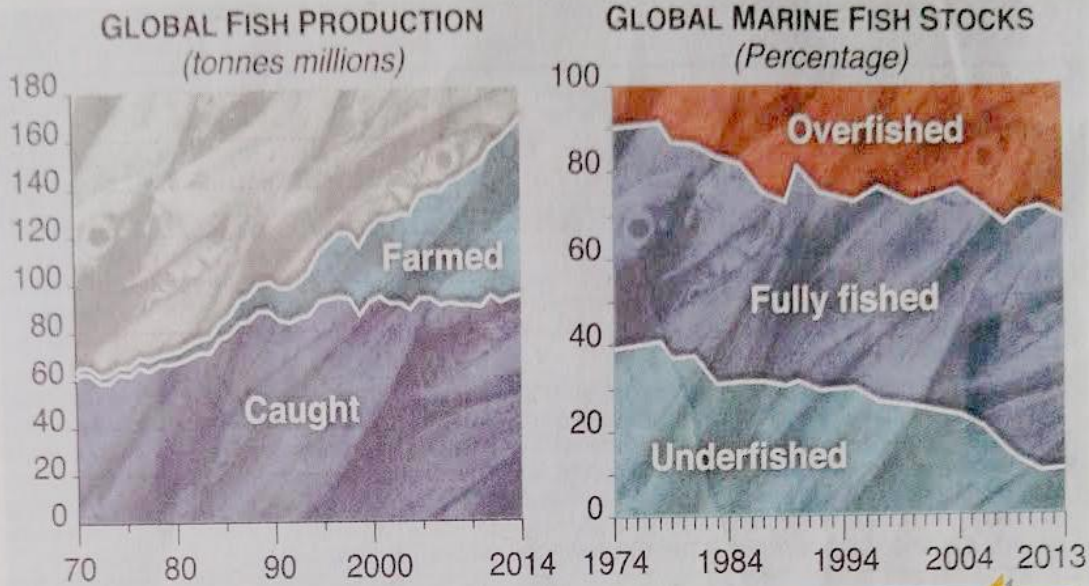
GLOBAL FISH TAKES (2014)
Major fishing areas (tonnes m)

0 1 2 4 8 14 24

2013: 32% of fish stocks being exploited beyond sustainable limit, up from 10% in 1970s

Mediterranean and Black Sea

Pacific Ocean

Atlantic Ocean

Pacific Ocean

Indian Ocean

Total: 81.6m tonnes

TOP TEN PRODUCERS (2014)
(tonnes m)

14.8 — China
6.0 — Indonesia
5.0 — U.S.
4.0 — Russia
3.6 — Japan
3.5 — Peru
3.4 — India
2.7 — Vietnam
2.7 — Myanmar
2.3 — Norway
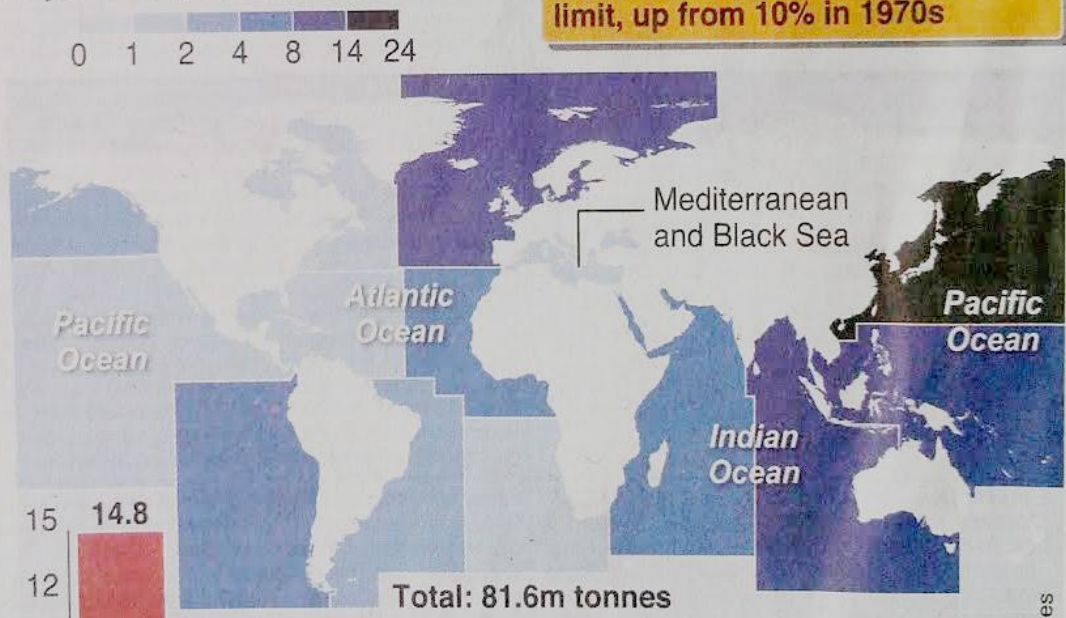
Picture: Getty Images

Sources: The state of world fisheries and aquaculture 2016 - FAO, The Economist   © GRAPHIC NEWS

Sources: The Hindu BusinessLine

India, Pakistan become full members of SCO - Shanghai Cooperation Organisation (SCO)
India and Pakistan became a full member of the Shanghai Cooperation Organisation (SCO).
Mains : GS 2 Important International institutions, agencies and fora- their structure, mandate.

Shanghai Cooperation Organisation (SCO)
- The Shanghai Cooperation Organisation (SCO) is a permanent intergovernmental international organisation, founded in 2001 in Shanghai (China) Kazakhstan, China, the Kyrgyzstan , Russia, Tajikistan, and Uzbekistan. It was preceded by the Shanghai Five mechanism.
- These countries, except for Uzbekistan, had been members of the Shanghai Five, founded in 1996;
- India and Pakistan were admitted as observers in 2005 and began the administrative process of joining the organisation in Shanghai, in 2015.

Significance
- Full membership will require India to coordinate with member countries both on the trade front in the **SCO headquarters in Beijing** and at the Regional Anti-Terrorist Structure (RATS) based in Tashkent.
- SCO has broadly two legs of cooperation. One is trade, banking, connectivity, energy and the second is the fight against terrorism under RATS.
- Cooperation on counter-terrorism is expected to emerge as a major point of India's exchange with SCO.
- SCO would be an institutional forum where India would cooperate with the neighbours of Afghanistan to establish peace and stability and hold consultation on counter-terror.
- Under the framework of the SCO, an annual counter-terror exercise is hosted by a member country.
- India is expected to have a bigger say in pressing for concerted action in dealing with terrorism as well as on issues relating to security and defence in the region.

Prelims perspective
Model questions
Which of the following statements about Shanghai cooperation organisation is/are correct?
1. India and Pakistan are members of SCO
2. The headquarters of the organisation is located in Shanghai

Select the correct answer using the codes given below
a. 1 only
b. 2 only

c. Both 1 and 2
d. Neither 1 nor 2

Mains Perspective
India's membership in SCO is mired with contradictions. Discuss
Sources: The Hindu The Hindu wikipedia SCO

Nuclear Suppliers Group (NSG) - Swiss support India's NSG bid
Switzerland, the incoming chair of the Nuclear Suppliers Group (NSG), will India's membership in NSG, but has left the door open for Pakistan to join as well.

Mains : GS 2 Important International institutions, agencies and fora- their structure, mandate.

Nuclear Suppliers Group (NSG)
- The Nuclear Suppliers Group (NSG) is a group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of Guidelines for nuclear exports and nuclear-related exports.
- **Origin:** The Nuclear Suppliers Group (NSG) was created following the explosion in 1974 of a nuclear device by a non-nuclear-weapon State- India.
- **Non Proliferation principle** : Under this principle adopted in 1994, a nuclear supplier, authorises a transfer (of fuel or related technology) only when satisfied that the transfer would not contribute to the proliferation of nuclear weapons.

Organisation
- The Nuclear Suppliers Group (NSG) works on the basis of consensus.
- Overall responsibility for activities lies within NSG Plenary meetings that are held once a year.
- A rotating Chair has the overall responsibility for coordination of work and outreach activities.
- **NSG Troika** : The current NSG Chair, together with the previous and the future Chair, form the NSG Troika.
- **NSG Point of Contact** : The Permanent Mission of Japan to the International Organisations in Vienna, acting as a Point of Contact, carries out a practical support function.
- **Members** : Presently it has 48 members

Image : http://www.nuclearsuppliersgroup.org/en/
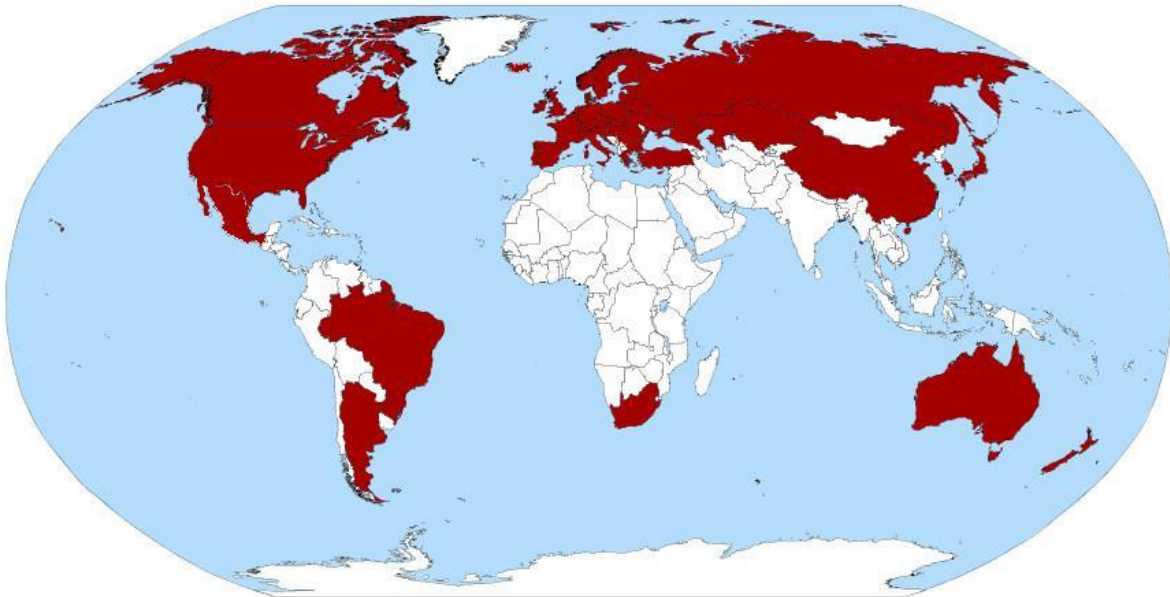
China's stand on India's NSG membership

- China maintains that nuclear Non Proliferation treaty that India has not signed is essential to prevent the spread of atomic weapons.
- China also wants two step intergovernmental process to address the issue of non-NPT states participation in NSG groups
- China further wants common criteria while considering new membership so that no special concession for India is made.
- In talks with China India insisted that the NSG was not a non-proliferation, but an "export control," mechanism. Therefore, India's NSG bid should be de-linked from the criterion of NPT membership.

Prelims Perspective

A question can be expected from any of the following areas

- Any facts about NSG regarding its membership, criteria for getting membership...

Mains Perspective

Model questions

- Considering the efforts India is making to gain entry to NSG evaluate the merits of NSG membership against the efforts taken to gain entry to NSG

Sources: The Hindu The Hindu The Hindu NSG

India, Israel set to expand defence ties

As India and Israel celebrate 25 years of their diplomatic relations, Tel Aviv has quietly emerged as one of the largest and trusted suppliers of defence equipment to the Indian armed forces.

Prelims : Current events of national and international importance.

Mains : GS 2 International Relations

India Israel defence ties

- India and Israel are close to concluding a deal for Spike Anti-Tank Guided Missiles. This will be the latest in a series of big-ticket defence deals approved recently.
- Israel has been supplying defence equipments to India which are reliable and sphisticated.
- It is well entrenched in the areas of Unmanned Aerial Vehicles, air defence systems, special forces equipment and electronic warfare equipment.
- Earlier this year, the Cabinet Committee on Security (CCS) approved a ₹17,000-crore deal to jointly develop a Medium Range Surface to Air Missile (MR-SAM) system for the Army.

Sources: The Hindu

Swiss ratify pact on information sharing

Switzerland ratified automatic exchange of financial account information (AEOI) with India and 40 other jurisdictions to facilitate immediate sharing of details on suspected black money even as it sought strict adherence to confidentiality and data security.

Mains : GS 3 Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

AEOI: Automatic Exchange of Financial Account Information

AEOI will enable the discovery of formerly undetected tax evasion. It will enable governments to recover tax revenue lost to non-compliant taxpayers, and will further strengthen international efforts to increase transparency, cooperation, and accountability among financial institutions and tax administrations. Additionally, AEOI will generate secondary benefits by increasing voluntary disclosures of concealed assets and by encouraging taxpayers to report all relevant information.

Points to Remember:

- The Swiss Federal Council, , the top governing body of the European nation, will soon notify the Indian government about the exact date from which the automatic exchange would begin.
- The issue of black money has been a matter of big debate in India, and Switzerland has been long perceived as one of the safest havens for the illicit wealth allegedly stashed abroad by Indians.

China-led AIIB touts 'green' growth Asian Infrastructure Investment Bank

Leaders of China backed AIIB touted its growing membership and commitment to sustainable development at its annual meeting, even as environmental groups were disappointed by its openness to investing in coal projects.

Mains : GS 2 India and its neighborhood- relations.

The news

- The AIIB has pledged to use its investments to help members fulfill their commitments to the Paris climate accord
- some NGO's are critical about its commitment about being green as the bank's new energy industry strategy recently adopted , left the door open for coal sector investment.

Asian Infrastructure Investment Bank (**AIIB**)

- The Asian Infrastructure Investment Bank (AIIB) is an international financial institution that aims to support the building of infrastructure.
- The AIIB, has 80 member countries,
- It was set up to help meet the estimated $26 trillion need for infrastructure spending in Asia through 2030, while also demonstrating that a China-led institution can meet international standards for best practice.
- The United States and Japan, both members of the Manila-based Asian Development Bank (ADB), have not joined the AIIB.
- The capital of the bank is $100 billion, equivalent to ⅔ of the capital of the Asian Development Bank and about half that of the World Bank.
- Its headquarters is located in Beijing
- India is an influential member of the AIIB as it has the second-largest voting share and percentage of shares(next only to China)

Prelims Perspective

Consider the following statements about Asian Infrastructure Investment Bank

1. The authorised capital of the bank in $100bn
2. Japan has the third largest percentage of shares in the bank
3. The headquarters of the bank is located in Beijing

Which of the statements given above is/are correct/

a. 1 and 2 only
b. 1 and 3 only
c. 2 and 3 only
d. All of the above

Mains Perspective

✓ India has recently signed to become a founding member of New Development Bank and also the Asian Infrastructure and Investment Bank(AIIB). How will the role of the two banks be different ? Discuss the strategic significance of these two banks for India. *[UPSC Mains 2014]*

Sources: [The Hindu](#) The Hindu

Social Security Agreement between India and the Netherlands

Union Cabinet has approved Amendment of the bilateral Social Security Agreement

(SSA) between India and the Netherlands by incorporating the "Country of Residence" Principle into the said SSA.

Mains : GS 2 Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Significance

- It will strengthen the ties between the two countries,
- It will favourably impact the profitability and competitive position of Indian and Dutch companies with foreign operations in either country by reducing their cost of doing business abroad.
- The SSA will also help promote more investment flows between the two countries.

What is SSA?

- The SSA allows exemption from double contribution to the social security system in both jurisdictions, exportability of accumulated social security benefits across jurisdictions (applicable even to the self-employed), and totalization of serving periods.
- Beginning 1st January 2013, a new social security legislation came into force in the Netherlands, consequent to which the Netherlands began to apply the "country of residence" principle on certain social security benefits exported to other countries.
- The principle sought, is to bring in equity in exportability of social benefits to the class of Dutch citizens who reside outside the Netherlands.

SSA with other countries : As on date, India has signed and operationalized SSAs with 18 countries – Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Japan, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland and South Korea.

Prelims perspective

Model questions

India signed social security agreement with several countries. What will be the implication of this?

a. It will attract more FDI to India
b. Indian citizen can enjoy social security benefits in India even if contributions were made in a foreign country
c. It will enable India to adopt world's best social security plans
d. Indian workers need not contribute to social security plans in other countries.

Sources: pib

Panel to oversee progress in UN's SDG - UN SDG

The Centre will soon set up a high-level committee headed by Chief Statistician of India to oversee the country's progress towards UN's Sustainable Development Goals

Mains : GS 2 Important International institutions, agencies and fora- their structure, mandate. Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources. Issues relating to poverty and hunger. GS 3 GS 1

Monitoring India's progress

- A dashboard is also being developed to monitor the progress on SDGs with technical support from the UN Development Programme (UNDP)
- Data collected by private agencies may be considered for monitoring the SDGs, particularly since a number of the goals are not directly linked to the Centre's provision of public services.
- The Ministry of Statistics and Programme Implementation has developed a list of draft national indicators to measure progress of SDGs.
- Emphasis is given on assessing and improving the availability of data and putting in place a transparent monitoring system

What are SDGs?

- On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development — adopted by world leaders in September 2015 at an historic UN Summit — officially came into force.
- The SDGs, also known as Global Goals, build on the success of the Millennium Development Goals (MDGs)
- It aims to end all forms of poverty.
- The new Goals are unique in that they call for action by all countries, poor, rich and middle-income to promote prosperity while protecting the planet.
- They recognize that ending poverty must go hand-in-hand with strategies that build economic growth and addresses a range of social needs including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.
- While the **SDGs are not legally binding**, governments are expected to take ownership and establish national frameworks for the achievement of the 17 Goals.
- Countries have the primary responsibility for follow-up and review of the progress made in implementing the Goals, which will require quality, accessible and timely data collection.
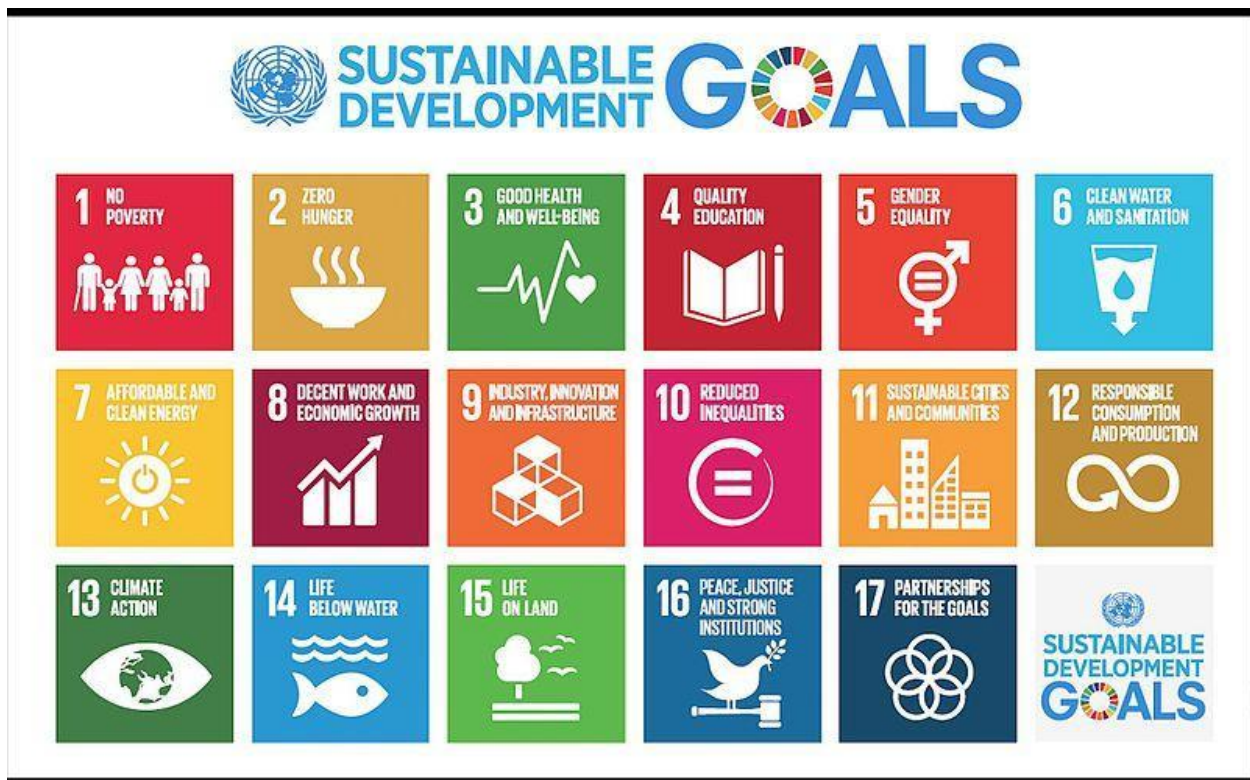
Prelims perspective

Model questions

Which of the following statements regarding Sustainable development Goals is/are correct?

1. SDG's were first proposed by IMF and World Bank and later adopted by United nations.
2. The sustainable development goals totalling 15 in number aims to end poverty is all forms
3. Sustainable development goals are legally binding on all countries.

Select the correct answer using the codes given below.

a. 2 only
b. 2 and 3 only
c. None of the above
d. 3 only

Mains Perspective

Model questions

SDG's advocate to end poverty, good health and quality education. What are your suggestions to achieve Sustainable development goals?

Sources: The Hindu UN

India-Portugal International StartUp Hub (IPISH)

Indian and Portuguese Prime Minister launched a unique startup Portal - the India-Portugal International StartUp Hub (IPISH) - in Lisbon.

Mains   : GS 2 International Relations

What does the portal contain?

IPISH hosts a range of tools and will provide information on the start-up hotspots of Bangalore, Delhi and Lisbon; and on associated subjects, such as policy, taxation, and visa options.

It will develop a Go-To-Market Guide to support start-ups.

Significance

- IPISH is expected to help in mutual capacity building, and enable connections between start-ups, investors, and incubators from relevant sectors.
- It is also expected to establish a network of honorary ambassadors based in India and Portugal to guide start-ups from both countries.

This is a platform initiated by Startup India and supported by Commerce & Industry Ministry and Startup Portugal to create a mutually supportive entrepreneurial partnership.

Background

- There are strong complementarities between India and Portugal in the start-up sector. Portugal has one of the highest rates of business creation in Europe and has emerged as one of the most vibrant European eco-systems for entrepreneurship.
- The governments of both India and Portugal are focusing on promoting Start-ups.

India and Portugal Sign agreement to promote Cooperation in The Field of Archives

A Protocol of Cooperation was signed between the National Archives of India and the Minister of Culture of the Portuguese Republic in the field of archives in Lisbon, Portugal. As a first step under this agreement, the Torre do Tombo (National Archives of Portugal) handed over to the National Archives of India digital copies of 62 volumes of the collection known as **'Moncoes do Reino' (Monsoon correspondence)**.

Prelims perspective

Model questions

IPISH is start up portal created by India and

- a. European Union
- b. Portugal
- c. Poland
- d. Panama

Sources: pib

China protests against 'incursion' – India China Border dispute

China had suspended the entry of Indian pilgrims undertaking the Kailash Mansarovar Yatra and lodged a formal protest with New Delhi, following an alleged cross-border incursion by Indian troops.

Mains : GS 2 India and its neighborhood- relations. Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests

About the Chinese action

- China suspended the entry of Indian pilgrims undertaking the Kailash Mansarovar Yatra
- It lodged a formal protest against an alleged cross-border incursion.
- **It** demanded immediate actions by India to withdraw personnel who has trespassed into Chinese territory.

Indian sources insist that Chinese soldiers entered Indian territory and destroyed two bunkers in **Doka La region**, on the tri-junction between Sikkim, Bhutan and Tibet.
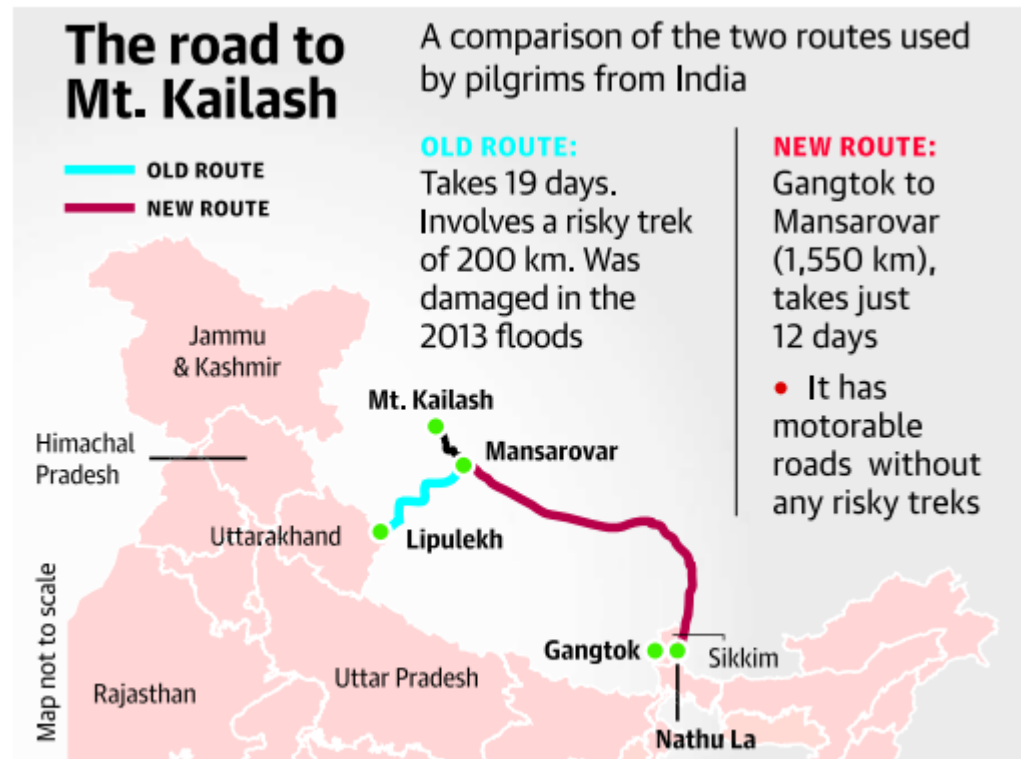
Image : The Hindu

Significance

- The Chinese move to close the Nathula Pass route to Kailash Mansarovar Yatra, may be treated as a diplomatic message.
- The move comes after personal meeting between Indian Prime Minister and Chinese President in Astana. The two leaders are also expected to meet in the coastal Chinese city of Xiamen during the BRICS summit in September.

- According to military sources, soldiers of both sides are in a stand-off along the Sikkim border for the past few days.
- The recent stand-off of the Indian Army with the Chinese People's Liberation Army (PLA) at Doko La on China-Sikkim-Bhutan tri-junction is being seen as an attempt by China to "assert" itself in areas which were not prone to transgressions or disputes
- There has been a spike in Chinese transgressions after the visit of the Dalai Lama to Arunachal Pradesh earlier
- India's cold shoulder to the China-Pakistan Economic Corridor is seen as one of the reasons behind the increased transgressions.

Also See : India – China Relations – Infographics 2017

Prelims Perspective

Model questions *[UPSC Prelims 2017]*

Consider the following statements

1. Mount Kailash is situated in Uttarakhand
2. Mt Kailash journey undertook by pilgrims takes lesser time to complete through Nathu La pass route

Select the correct answer using the codes given below.

a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Mains Perspective

India and its neighborhood- relations is a very important topic for civil services examination. Questions are sure to figure from this part of the syllabus. To see the question related to India and neighbourhood relations please visit our IAS preparation page

Sources: The Hindu The Hindu The Hindu

Army, PLA in a tug of war over Doklam Plateau

The Doklam Plateau, north of the tri-junction of Sikkim, Bhutan and Tibet, by India's claim, is not just a disputed area, but has huge strategic significance for both India and China.

Mains   : GS 2 India and its neighborhood- relations. Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests

Highlights

- The area has huge strategic significance for both India and China
- Wedged between Bhutan, India and China are few areas of dispute — together accounting for just over 750 square kilometres. Among the disputed areas is Doklam (also called Donglang in China) , which is just about 90 square

kilometres where the present dispute is taking pace.

Why Doklam is strategically significant?

- For the Chinese to reach their border posts with Bhutan, Doklam provides an easy way to construct a road, and they have been trying to do so and India has consistently objected to it. Not very far from Doklam is the strategically important Chumbi Valley in the Tibetan region, to which Chinese are now planning to expand their rail connectivity.
- The disputed area also provides, according to India's perspective, a bigger buffer to its sensitive Chicken's Neck, or the Siliguri Corridor, which is an extremely narrow stretch of land that connects the Northeast to the rest of the country.
- From the Chumbi Valley it is just a little over 100 kilometres away.

Western sector
- With **2,150 km** of border, the two sides differ over the boundary line that separates Jammu and Kashmir from Xinjiang province of China
- India accuses China of illegally occupying Aksai Chin, and some other parts of the Ladakh region
- The 1962 war saw fierce fighting between the two sides here
- Tense standoffs occasionally take place, and in summer months, the two sides send deep patrols to assert their respective claim over boundaries

Middle sector
- The **625 km** in this sector is the least controversial of the three. Himachal Pradesh and Uttaranchal abet the boundary. Both sides do not have much disagreement over this area

Eastern sector
- The **1,140 km** long boundary is contentious, and is historically referred to as the McMahon Line, which Chinese do not accept because the McMahon Line was agreed to by Tibetan representatives. China claims the whole of Arunachal Pradesh, around 85,000 sq km, as its territory
- The two sides fought fiercely in this sector in 1962, but a better prepared Chinese had the advantage

Sticking points

India and China have a total boundary of around 4,050 km, divided into three sectors. The States of Jammu and Kashmir, Uttarakhand, Himachal Pradesh, Sikkim and Arunachal Pradesh share their borders with China. A look at the issues

DOKLAM TRI-JUNCTION
- The present standoff, in the tri-junction of Bhutan-India-China is taking place in this sector

MAP NOT TO SCALE

Image : The Hindu

Also See : India – China Relations – Infographics 2017

Prelims Perspective

Model questions

The place 'Doklam' sometimes seen in news lies between the boundaries of between

- a. India and China
- b. India China and Bhutan
- c. India and Pakistan
- d. China Mongolia

Mains Perspective

India and its neighborhood- relations is a very important topic for civil services examination. Questions are sure to figure from this part of the syllabus. To see the question related to India and neighbourhood relations please visit our IAS preparation page

Sources: The Hindu

India, Afghanistan open air freight route

India and Afghanistan inaugurated a dedicated air freight corridor service .The corridor which passes through the airspace of Pakistan was launched with a cargo aircraft flight flagged off by Afghanistan President Dr. Ashraf Ghani.

Government unveils tit-for-tat public procurement policy

A provision, relating to "reciprocity," has been included in the Indian government's new policy to encourage 'Make in India' by granting preference to local suppliers in public procurement. Under the new policy entities from countries where Indian suppliers are not allowed to participate or compete in bids for government procurement, may be restricted or excluded from public procurement tenders in India.

India to be Co-Partner Country in ANUGA 2017

India will be co-partner in ANUGA - an international business platform for Food Industry to be held in Cologne, Germany.   ANUGA - an acronym for Allgemeine Nahrungs Und Genußmittel Ausstellung (General Food and Non essential Provisions Exhibition) is the world's biggest and most important trade fair for Food and beverage trade. It takes place biennially (every 2 years). ANUGA 2017 is the 34th edition.

GS 3 Indian Economy

Strategic Partnership model takes effect

To enable participation of private Indian firms in 'Make in India' in defence manufacturing

Mains   :   GS 1 Government policies and interventions for development in various

sectors and issues arising out of their design and implementation.
GS 3: Investment models.
Highlights

1. Strategic Partnership (SP) policy intended to promote Indian private sector participation in defence manufacturing, formally came into effect.
2. The Defence Ministry notified the policy as the final chapter under the Defence Procurement Procedure.
3. The SP model is being implemented to enable participation of private Indian firms in 'Make in India' in defence.
4. The SP is expected to play the role of a system integrator by building an extensive ecosystem comprising development partners, specialised vendors and suppliers.
5. Various selection and evaluation criteria have been stipulated for short-listing the SP.
6. Currently, the Indian private sector currently has limited experience in defence manufacturing and even lesser in respect of final integration of complex defence systems and sub-systems.
7. In view of this, the policy states, "besides any experience in defence manufacturing, potential SPs will be identified primarily based on their experience and competence in integration of multi-disciplinary functional system of systems, engineering and manufacturing."
8. Of the four segments under SP, two are for the Navy: submarines and utility helicopters. The others are single-engine fighter aircraft for the Indian Air Force and armoured vehicles for the Army.

Mains Perspective
Model questions
What are the reasons behind India not having a robust defence industry. Examine the constraints and give your suggestions.
Sources: The Hindu

'India will remain among top 3 investment destinations till '19'
India will remain among the top three investment destinations globally till 2019, according to a survey by the United Nations Conference on Trade and Development (UNCTAD).
Mains : GS 3 Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.
Highlights

- UNCTAD's World Investment Report 2017 said India ranked 10th in terms of FDI inflows in 2016, with $44 billion coming in, as in 2015.
- Over the next two years, India will be behind only the U.S. and China in terms of investment attractiveness

- United States of America, China and India are the top prospective destinations for FDI
- Business executives surveyed by UNCTAD say that they maintain their confidence in developing Asia's economic performance.
- Global foreign direct investment (FDI) is expected to rise by 5%, to almost $1.8 trillion in 2017.
- Although FDI flows had remained the same in 2016 as they were in 2015, there was global interest in mergers and acquisitions in the Indian market.

What is a 'Foreign Direct Investment - FDI'?
- Foreign direct investment (FDI) is an investment made by a company or individual in one country in business interests in another country, in the form of either establishing business operations or acquiring business assets in the other country, such as ownership or controlling interest in a foreign company.
- Foreign direct investments are distinguished from portfolio investments in which an investor merely purchases equities of foreign-based companies.
- The key feature of foreign direct investment is that it is an investment made that establishes either effective control of, or at least substantial influence over, the decision making of a foreign business.

Prelims perspective

Both FDI and FII are related to investment in a country. Which one of the following statements best represents an important difference between the two? **[UPSC Prelims 2011]**

a. FII helps bring better management skills and technology, while FDI brings only capital.
b. FII helps in increasing capital availability in general, while FDI only targets specific sectors.
c. FDI flows only into the secondary market, while FII targets primary market.
d. FII is considered to be more stable than FDI

Mains Perspective

Model questions

Foreign investment related questions were asked multiple times in the past examinations. To see the questions visit our IAS preparation page.
Sources: The Hindu Investopedia

2 States breach 3% fiscal deficit target FRBM Act and States
While the Reserve Bank of India (RBI) had cautioned seven States not to breach the 3% fiscal deficit target, two States have already breached that threshold
Mains : GS 3 Government Budgeting.
What did the RBI said?

The central bank officials do not have any constitutional backing to stop States from breaching the 3% fiscal deficit mark.

What does the FRBM act says about the fiscal deficiet?

- The Fiscal Responsibility Budget Management Act prescribes a fiscal deficit threshold of 3% of gross state domestic product, but States can take permission from the Centre for exceeding the 3% mark.
- RBI had asked seven States not to breach the mark, excluding expenditure for UDAY scheme

Why states fiscal deficit targets were breached?

- Farm loan waiver schemes by several states
- State governments face severe resource constraints as their non-debt receipts were often insufficient for fulfilling their developmental obligations.

Significance

States resort to market borrowings to bridge the resource gap they are facing and Over a period of time, such borrowings may result in the accumulation of debt liabilities which, if unchecked, could pose major challenges for macroeconomic and financial stability.

Prelims Perspective

Budget related questions were asked in the preliminary examination several times. To see how questions can come from this portion visit our IAS preparation page.

Mains Perspective

Model questions

What were the reasons for the introduction of Fiscal Responsibility and Budget Management Act, 2003? Discuss critically its salient features and their effectiveness. 200 words. *[UPSC Mains 2013]*

Sources: The Hindu

Use bioethanol to end farm crisis - Bioethanol

The Centre will shortly unveil a policy on the production of second-generation ethanol from biomass.

Mains   : GS 3 Conservation, environmental pollution and degradation, environmental impact assessment.

Highlights

- The Petroleum Ministry had taken the initiative to get pacts signed with 15 industrial units for bioethanol production.
- Ethanol could be produced from paddy and wheat straw, bagasse, biomass, segregated municipal waste and bamboo.
- Burning of paddy straw in parts of Uttar Pradesh and Haryana was causing pollution in New Delhi and elsewhere, and farm refuse could be used to solve the problem. I
- Vehicles with "flexi-engines", which can use 100% ethanol or a mix of 22%

ethanol with petrol or a blend of 15% ethanol with diesel, were available globally.
- By converting agricultural waste into bioethanol, farmers would be diversifying.

Bioethanol is an alcohol made by fermentation, mostly from carbohydrates produced in sugar or starch crops such as corn, sugarcane, or sweet sorghum.

Prelims perspective

Model questions

'Bioethanol ' sometimes seen in news pertains to
   a. an industrial solvent
   b. fuel made from farm residue
   c. a compound to replace CFC's
   d. None of the above

Mains Perspective

Topics related to Climate change, Environment and Ecology are becoming more and more important to keep an eye on. Government policies regarding Climate change, environment should be closely followed by any aspirant. Most of the questions asked in the previous examinations were related to government initiatives aimed at tackling Climate Change, curbing pollution etc. You can visit our IAS preparation page to know more

Sources: The Hindu

India aims to lift 'doing business' ranking

India is banking on major reform measures undertaken in several areas to significantly improve its ranking in the next edition of the World Bank's (ease of) Doing Business report.

Mains : GS 3 Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment. Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

Highlights of the report released last year

- India was ranked 130 out of 190 countries last yearwas ranked 130 out of 190 countries
- India was placed 155 in 'starting a business', and 185 in 'dealing with construction permits.'

Reform measure undertaken by the government

1. India undertook major reforms in areas such as starting business, dealing with construction permits and other parameters such as insolvency
2. On 'starting a business', the time to start/operate a limited liability company in Mumbai and Delhi (the cities covered by the World Bank) has been brought down from 26 days last year to just one day.
3. The 'Simplified Proforma for Incorporating a Company electronically' (SPICe) is now the only default application for incorporation of companies

The "mandatory" SPICe form combines five procedures — incorporation of a company, obtaining Director Identification Number, reservation of company name, application for Permanent Account Number as well as an application for Tax deduction and collection Account Number (TAN) — into one procedure.

4. Procedures associated with Employee State Insurance Corporation and Employee Provident Fund Organization have been made electronic and are now provided in real time.

Prelims Perspective

Model question *[UPSC Prelims 2016]*

India's ranking in the 'Ease of Doing Business Index' is sometimes seen in the news. Which of the following has declared that ranking?

(a) Organization for Economic Cooperation and Development (OECD)

(b) World Economic Forum

(c) World Bank

(d) World Trade Organization (WTO)

Mains Perspective

India's ranking in the ease of doing business report published by World Bank has been consistently low. What factors can been attributed to this? Give an account of measures undertook by the government to improve ease of doing business in India

Sources: The Hindu

The Insolvency and Bankruptcy Code, 2016 – Explained [Important]

The insolvency and Bankruptcy Code which makes it easier to wind up operations of a company has been in the news for some time. Let's have a look at what it is.

Mains : GS 3 Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

What do you mean by insolvency and bankruptcy?

Insolvency is the inability to pay the debts owned and Bankruptcy is a legal status usually imposed by a Court, on a firm or individual unable to meet debt obligations.

A company is bankrupt if it is unable to repay debts to its creditors (banks, suppliers etc).

What is the Insolvency and Bankruptcy code?

- India's new Bankruptcy Bill aims to create a formal insolvency resolution process (IRP) for businesses, either by coming up with a viable survival mechanism or by ensuring their speedy liquidation.
- Under the law, a bankrupt entity is a debtor who has been adjudged as bankrupt by an adjudicating authority that has passed a bankruptcy order.
- The adjudicating authority would be the National Company Law Tribunal (NCLT) for companies and limited liability partnerships, and the Debt Recovery Tribunal (DRT) for individuals and partnership firms.

What does The Insolvency and Bankruptcy Code, 2016 contain?

- The Bill envisages a new regulator — the Insolvency and Bankruptcy Board of India
- The Code creates time-bound processes for insolvency resolution of companies and individuals.
- It consolidates provisions of the current legislative framework to form a common forum for debtors and creditors of all classes to resolve insolvency.

What exactly will the new law do that is different?

The new Bill seeks to consolidate all existing laws and it specifies a timeframe — 180 days after the process is initiated, plus a 90-day extension — for resolving insolvency.

It proposes to do this by creating a host of new institutions. These would include:

1. Insolvency Professionals, who will conduct the insolvency resolution process, take over the management of a company, assist creditors in the collection of relevant information, and manage the liquidation process.
2. Insolvency Professional Agencies, who will examine and certify these professionals.
3. Information Utilities, which will collect, collate and disseminate financial information related to debtors.
4. The Insolvency and Bankruptcy Board of India will be set up to regulate functioning of IPs, IPAs and IUs.

Who can initiate the Insolvency Resolution Process?

1. A business or debtor who has defaulted on dues can initiate the IRP.
2. Lenders and creditors to a firm, including employees — either secured or unsecured.

The government had recently amended the RBI Act, which gave powers to the central bank to direct banks to take punitive action against individual accounts under IBC. This may help in resolving the NPA crisis

How does the process work under Insolvency and Bankruptcy Code?

1. One, when a loan default occurs, and either the borrower or the lender approaches the NCLT or DRT for initiating the resolution process. There is 14-day time period for admission or rejection of a case by National Company Law Tribunal.
2. The creditors appoint an interim Insolvency Professional (IP) to take control of the debtor's assets and company's operations, collect financial information of the debtor from information utilities, and constitute the creditors' committee. *The insolvency practitioners will look at various possibilities including revival of projects or liquidation.A creditors committee is formed to represent the interest of lenders and any other party that have been affected due to the default by the company.*

3. The committee has to then take decisions regarding insolvency resolution by a 75% majority. Within 180 days, 75 per cent of the creditors must agree to a revival plan. If this minimum threshold is not met, the firm automatically goes into liquidation.
4. If three-fourths of the creditors decide that the case is complex and cannot be addressed within 180 days, the adjudicator can grant a one-time extension of up to 90 days on the process.
5. The resolution plan will be sent to the tribunal for final approval, and implemented once approved.

Why do we need a new law?

1. As of 2015, insolvency resolution in India took 4.3 years on an average. The entire process of winding up a firm is also very long-winded, with courts, debt recovery tribunals and the Board for Industrial and Financial Reconstruction all having a say in the process and confusion prevailing due to a lack of clarity about the current bankruptcy framework.
2. India is a capital starved country and therefore it is essential that capital isn't frittered away on weak and unviable businesses. Quick resolution of bankruptcy can ensure this.

Earlier laws addressing bankruptcy proceedings

- Today, bankruptcy proceedings in India are governed by multiple laws — the Companies Act, SARFAESI Act, Sick Industrial Companies Act, and so on.
- The new Code streamlines and consolidates all these laws to make the process simpler.
- The multiplicity of laws has been a problem in the way of banks failing to recover their loans. For example, DRTs are dealing with a backlog of Rs 4 trillion worth of cases. For the last three financial years, less than 20% of cases taken up by various channels such as DRTs, Lok Adalats and SARFAESI courts have been successfully resolved.

What lies ahead?

- The law, can ensure quicker resolution of the bad loan problems dogging PSU banks. Bankruptcy laws accept that business ventures can fail and allow entrepreneurs to get a fresh start.
- The success of the bankruptcy law will depend on the jurisprudence that develops under the Insolvency and Bankruptcy Code
- India has a mixed track record of regulating professional services, and the quality and independence of the IPs is critical to the successful implementation of the IBA.

Concluding remarks on Insolvency and Bankruptcy code

We have to wait and watch how the various players, including bankers, promoters, the government, IPs, auditors, lawyers, valuers and liquidators, behave in the next few

cases. The hope is that institutional capacity will strengthen; there will be greater alignment in the interests of the promoters, creditors and buyers of distressed assets; and, finally, the government and banks will show a strong political will to settle a few cases quickly and transparently. Only then can the value of the distressed assets be maximised and capital and other productive resources get redeployed efficiently.

Prelims Perspective

Model Questions

Which of the following statements about The Insolvency and Bankruptcy Code is/are correct?

1. It will create licensed professional called Insolvency Professionals.
2. The National Company Law Tribunal (NCLT) will adjudicate insolvency resolution for individual

Select the correct answer using the code given below.

a.   1 only
b.   2 only
c.   Both 1 and 2
d.   Neither 1 nor 2

Mains Perspective

Model questions

Instead of facilitating ease of doing business, unwittingly The Insolvency and Bankruptcy Code would facilitate ease of undoing business. Ultimately, only better corporate governance and risk mitigation measures can ensure ease of doing business. Critically evaluate.

Sources: The Hindu pib The Hindu The Hindu PRS The Indian Express The Hindu BusinessLine The Hindu

Interest Subvention

The Union Cabinet approved the Interest Subvention Scheme (ISS) for farmers for the year 2017-18.

Mains   : GS 3 Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Interest subvention scheme

- **Objective :** The objective of the scheme is to make available at ground level, agricultural credit for Short Term crop loans at an affordable rate to give a boost to agricultural productivity and production in the country.
- It will help farmers getting short term crop loan up to Rs. 3 lakh payable within one year at only 4% per annum.
- The interest subvention will be given to Public Sector Banks (PSBs), Private Sector Banks, Cooperative Banks and Regional Rural Banks (RRBs) on use of own funds and to NABARD for refinance to RRBs and Cooperative Banks.

- The Interest Subvention Scheme will continue for one year and it will be implemented by NABARD and RBI.
- The Central Government will provide approximately Rs. 20,339 crore as interest subvention for 2017-18.

Booster shot

The RBI and the NABARD will steer the interest subvention scheme. Highlights:

- Subvention of 2% for all crop loans up to ₹3 lakh

- Additional 3% subvention to farmers who repay on time

- Subvention of 2% for post-harvest storage of produce for loans up to 6 months

- 2% subvention for all farmers who are affected by natural calamities like drought, floods and depleted rainfall

- The Centre has set aside ₹20,339 crore for the scheme

Significance

This institutional credit will help in delinking the farmers from non-institutional sources of credit, where they are compelled to borrow at usurious rates of interest.

Sources: The Hindu pib

CBDT seeks comment on PoEM rule changes – Place of Effective management

The Central Board of Direct Taxes (CBDT) sought comments from the public on some modifications and amendments it had made to the Place of Effective Management (PoEM) Rules.

Mains : GS 3 Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth. Money-laundering and its prevention

What is meant by Place of effective management?

- The Place of Effective Management is defined in the Income Tax Act to mean "a place where key management and commercial decisions that are necessary for the conduct of the business of an entity as a whole are, in substance, made."
- The Finance Act 2015 introduced the concept of place of effective management or PoEM.

What is its significance?
- If a company's PoEM is in India it will be treated as an Indian resident and its global income will be taxable in India
- It is targeted at t shell companies created to keep income out of India even when real management is taking place within the country.

PoEM rules
The rules deal in detail with the issues that a foreign firm is likely to face in its first year of constituting a resident in India owing to its PoEM being in India

Prelims perspective
Model questions
The term 'Place of effective management' is sometimes seen in the news in the context of
  a. money laundering
  b. powers of cabinet
  c. pressure groups
  d. NGOs

Mains Perspective
Model questions
Money laundering poses a serious security threat to a country's economic sovereignty. What is its significance for India and what steps are required to be taken to control this menace? *[UPSC Mains 2013]*
Sources: The Hindu The Hindu

Aadhaar must for bank accounts – Small accounts
The government, through a notification amending prevention of money laundering law, has made it mandatory to provide Aadhaar to open a bank account and to conduct a transaction of Rs. 50,000 or more.
Mains   : GS 3 Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth. Money-laundering and its prevention
The notification amended the Prevention of Money-laundering (Maintenance of Records) Rules, 2005

NEW NORMS
- Individuals who are eligible to be enrol for an Aadhaar number need to provide that number and the Permanent Account Number (PAN) to open a bank account
- Same is applicable for any transaction "of an amount equal to or exceeding rupees fifty thousand, whether conducted as a single transaction or several transactions that appear to be connected, or any international money transfer operations."

Case of Small Account
What are small accounts?
Small Account means a savings account in a banking company where-

1. the aggregate of all credits in a financial year does not exceed rupees one lakh;
2. the aggregate of all withdrawals and transfers in a month does not exceed rupees ten thousand; and
3. the balance at any point of time does not exceed rupees fifty thousand.
4. Separate KYC form need not be obtained from such applicants;

What are the changes?

1. The small account shall be opened only at core banking solution-linked banking company branches or in a branch where it is possible to manually monitor and ensure that foreign remittances are not credited to a small account
2. The stipulated limits on monthly and annual aggregate of transactions and balance in such accounts are not breached, before a transaction is allowed to take place

What does the Supreme Court says about Aadhar?

- The Supreme Court had on June 9 ruled that while those possessing an Aadhaar ID must link it to their PAN,
- those who have as yet not got an Aadhaar need not do so in order to file returns — their PAN cards will not be rendered void, something the government had said would happen in the Finance Bill 2017.

Source : The Hindu

Why you don't feel the record-low inflation- Consumer Price Index

Though Consumer price index has eased people's experience with price rise doesn't match official reading

Mains : GS 3 Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

Three reasons why personal experience with price rise may not gel with the official reading.

1. the All-India CPI Combined is compiled by collecting town and village-level data on the prices of goods and services across States and then aggregating them. Different states have different weightage while calculating CPI. CPI inflation varies from state to state.

2. **Consumption pattern :** In order to arrive at a CPI General Index that is representative of India the statistics office assigns different weights to the different products and services. As the consumption pattern is different for different household lesser CPI may not result in reduction of real inflation.

3. The official CPI captures the point-to-point change in the index in the latest month, compared to the same month last year. This makes the number susceptible to distortions from one-off factors both in the base month and in the current one.

What is Consumer Price Index?

- Consumer Price Index is a measure of change in retail prices of goods and services consumed by defined population group in a given area with reference to a base year.
- This basket of goods and services represents the level of living or the utility derived by the consumers at given levels of their income, prices and tastes.
- The consumer price index number measures changes only in one of the factors; prices.

Significance of CPI

This index is an important economic indicator and is widely considered as a barometer of inflation, a tool for monitoring price stability and as a deflator in national accounts.
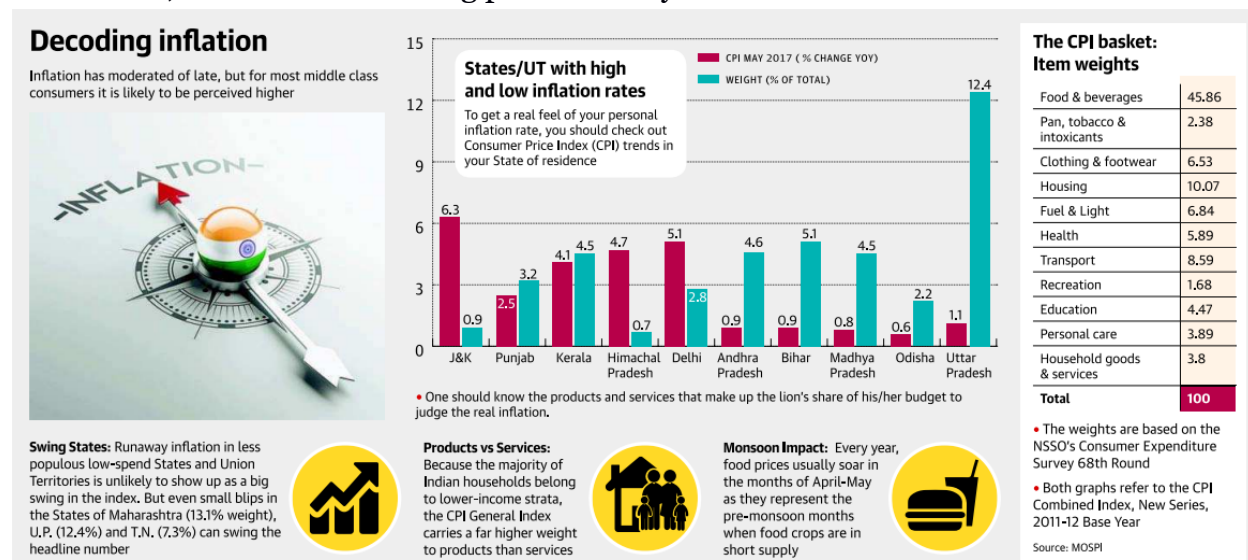
Image : The Hindu

Prelims perspective

Model questions

With regard to Consumer price index which of the following statement is/are correct?

1. Food and beverages constitute the largest weightage in consumer price index
2. It is different for different states.
3. The CPI figure may not reflect the real experience that people may have eith regard to price rise

Select the correct answer using the code given below

a. 1 and 2 only
b. 2 and 3 only
c. 1 and 3 only
d. All of the above

Questions related to inflation were asked several times in the previous examination. To know more visit our IAS preparation page.

Sources: The Hindu Arthapedia

Startup India Hub

The Commerce & Industry Minister Smt. Nirmala Sitharaman launched the Startup India Virtual Hub,

Mains : GS 3 Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.

What is Startup India virtual hub?

- It is an online platform for all stakeholders of the entrepreneurial ecosystem in India to discover, connect and engage with each other.
- The portal will host startups, investors, funds, mentors, academia, incubators, accelerators, corporates, Government bodies and more.

Significance

- It is an effort to create a marketplace where all the stakeholders can interact, exchange knowledge, and enable each other to grow.
- The Hub attempts to solve the problem of information asymmetry and lack of access to knowledge, tools, & experts, especially in the nascent ecosystems across Tier II and III towns.
- The Hub will act as a nodal platform and will enable users to connect with ecosystem stakeholders, access free learning resources, tools & templates on legal, HR, accounting & regulatory issues and discussion forums.
- The Virtual Hub is a dynamic & interactive platform that will facilitate learning & development, networking, mentorship, funding,etc. for startups.

Startup exchange programme - SAARC nations

- A new initiative, wherein a Startup exchange program amongst the SAARC nations would be organized by India
- It will lead to tap the complementarities that ventures across South Asia

Mains Perspective

Model questions

Government's ambitious 'Startup India' campaign is essentially geared towards promoting the entrepreneurial culture in our country. The governmental vision alone will not be suffice to create a startup ecosystem in India. It is high time that academic institutions align their priorities with the governmental vision to prepare students for the futuristic Startup roadmap. Discuss

Sources: The Hindu pib

Anti-profiteering body can take suo motu action

The National Anti-Profiteering Authority, to be set up under the Goods and Services Tax (GST) regime, will have wide-ranging powers, including the power to issue notices to anybody that it feels warrants a "fair enquiry," as per the rules finalised by the GST Council.

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

What is purpose of anti profiteering clause in GST?

- Following the implementation of GST prices of goods and services will come down owing to lesser tax incidence.
- The government can create an Authority which will decide whether businesses have reduced their prices enough when there is a reduction in the GST rate of a particular good or service.

What will be the powers of Anti-profiteering body?

The powers of the Authority include the ability to order a reduction in prices, impose a penalty, and even cancel the registration of a company deemed to have not passed on a tax rate reduction to consumers.

Composition of the body

The Authority is to be chaired by either a retired High Court judge or a member of the Indian Legal Service who has at least three years of experience at the level of Additional Secretary or higher.

How will the authority work?

The rules mandate a three-step procedure, from the detection of anti-profiteering to the decision of the Authority.

1. It provides for the creation of a Standing Committee, which would receive written complaints from anyone about anti-profiteering practices.
2. The Standing Committee, after reviewing the prima facie evidence, will refer the matter to the Director-General of Safeguards (DGS) for a detailed inquiry. T

The DGS must complete its investigation within three months of receiving the reference from the Standing Committee.

3. The Authority will have three months to issue its verdict following the inquiry by DGS.

The entire procedure, from investigation to verdict, cannot exceed nine months.

Also Read : All you want to know about- Goods and Services Tax or GST

Prelims Perspective

Model Questions *[UPSC Prelims 2017]*

What is/are the most likely advantages of implementing 'Goods and Services Tax (GST)'?

1. It will replace multiple taxes collected by multiple authorities and will thus create a single market in India.
2. It will drastically reduce the 'Current Account Deficit' of India and will enable it to increase its foreign exchange reserves.
3. It will enormously increase the growth and size of economy of India and will enable it to overtake China in the near future.

Select the correct answer using the code given below:

SELFLEARN

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Mains Perspective

- ☐ Discuss the rationale for introducing Goods and Services Tax (GST) in India. Bring out critically the reasons for the delay in rollout for its regime *[UPSC Mains 2013]*

Sources: The Hindu

₹3,350 cr released for Polavaram project – Polavaram Projectt

A total of ₹3,349.70 crore has been released to Andhra Pradesh for early completion of the Polavaram irrigation project which has been put on fast track

Mains : GS 1 Geography GS 3 different types of irrigation and irrigation systems

- A total of 45 irrigation projects have been fast-tracked.
- The Ministry of Water Resources said it was working with a three-pronged objective of ensuring effective use of water resources, inclusiveness and sustainability.
- The flagship scheme Pradhan Mantri Krishi Sinchayee Yojana, launched in mission mode, has been divided into 99 prioritised projects with different timelines.

Project in Brief

- Indira Sagar (Polavaram) project is located on river Godavari near Ramayyapet village of Polavaram Mandal of West Godavari district in Andhra Pradesh.
- The project is multipurpose major terminal reservoir project on river Godavari for development of Irrigation, Hydropower and drinking water facilities to East Godavari, Vishakhapatnam, West Godavari and Krishna districts of Andhra Pradesh.
- It is likely to irrigate 2.9 lakh ha and generate 960 MW of power
- The project implements Godavari-Krishna link under Interlinking of rivers project.
- The project envisages transfer of 80TMC of surplus Godavari water to river Krishna which will be shared between AP, Karnataka and Maharashtra

Prelims perspective

Model questions *[UPSC Prelims 2016]*

Recently, linking of which of the following rivers was undertaken?

a) Cauvery and Tungabhadra

b) Godavari and Krishna

c) Mahanadi and Sone

d) Narmada and Tapti

Mains Perspective

Model questions *[UPSC Mains 2016]*
The effective management of land and water resources will drastically reduce the human miseries. Explain.
Sources: The Hindu The Hindu Ministry of Water Resources

Solar push could mean 3 lakh jobs by 2022: report
By adding the 160 GW (solar and wind power) of renewable power by 2022 India could generate 3 lakh jobs.
Mains   : GS 3 Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.
Conservation, environmental pollution and degradation, environmental impact assessment.
Highlights
- Currently, the solar and wind sectors employ just 21,000 workers.
- Ninety percent of these jobs would be in the solar sector.
- Seventy percent of the new jobs would be in the labour-intensive rooftop solar segment.
- Solar jobs would be distributed fairly evenly across the country, with a pronounced tilt in favour of Maharashtra and Uttar Pradesh.
- Wwind jobs were likely to be concentrated in a few States that have high wind potential.

The data is based on a new report by the think tanks, Council on Energy, Environment and Water (CEEW) and the Natural Resources Defense Council (NRDC).
- *As part of its commitments to dealing with global warming, India has committed to installing 175,000 MW of green power by 2022. Of this, only 10% has been installed so far.*

Sources: The Hindu

Centre may tweak airport tariff rules - Airports Economic Regulatory Authority (AERA)
The Civil Aviation Ministry may amend its regulatory law to fix airport charges in advance.
Mains   : GS 3 Infrastructure: Energy, Ports, Roads, Airports, Railways etc.
Why airport charges needs to be fixed in advance?
- The move is aimed at making the upcoming greenfield airport projects attractive for global players
- It will ensure assured returns to investors at time of participating in the bidding process.
- If aeronautical charges are fixed while awarding the greenfield airport project, there would be no need to determine such charges by the regulator.

Present practice

- At present The AERA revises tariff every five years, known as a control period, considering the investment and expenditure incurred by the airport operator.
- The proposed law would not impact the regulatory regime at existing airports.

Airports Economic Regulatory Authority (AERA)
- The Airports Economic Regulatory Authority (AERA) is a statutory body constituted under the Airports Economic Regulatory Authority of India Act, 2008
- The AERA is responsible for determining tariff in respect of airport services provided at major airports across the country.
- The charges allow operators to get adequate rate of return on the investments incurred on developing and providing services at major airports.
- AERA has the purview to regulate tariffs for only major airports.
- AERA has the power to regulate tariffs for 'aeronautical services', and not for other services. For some of these services, the airport may have monopolistic power, which is not being regulated.

Prelims Perspective
With reference to 'Airports Economic Regulatory Authority', consider the following statements:
1. AERA is an executive body set up to regulate airfares in the country.
2. It is mandated with the function of determining the amount of the Development Fees for airport services provided

Which of the above statements is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
Sources: The Hindu AERA

Digital MSME Scheme
The Union Minister for MSME Shri Kalraj Mishra launched 'Digital MSME Scheme' and handed over three Memorandums of Understandings to SAP India, Intel and HMT respectively.
Mains   : GS 3 Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.
What is Digital MSME scheme?
- The Digital MSME Scheme is revolving around Cloud Computing which is emerging as a cost effective and viable alternative in comparison to in-house IT infrastructure installed by MSMEs.
- In cloud computing, MSMEs use the internet to access common as well as tailor-made IT infrastructure including software for managing their business processes.

- Cloud computing is free from the burden of investment on hardware/software and infrastructural facilities. Therefore CAPEX converts into OPEX.
- **Significance :** This scheme would encourage MSMEs towards this new approach i.e. Cloud

Importance of MSMEs in the economic and social development of India
- The MSME sector including Khadi & Village Industries and Coir Sector is the largest employer, after agriculture.
- The MSMEs have shown growth of over 10% in recent years, this being more than that recorded by the large corporates.
- The MSMEs provide employment to over 110 million persons through over 50 million enterprises producing over six thousand products.
- In view of its importance in the national economy, the MSME Sector has always been in the top priority of the present Government.

Prelims perspective
Model questions
With regard to Digital MSME scheme which of the following statements is/are correct?
1. It is a portal where all schemes related to MSME sector is available
2. It helps MSME's to adopt IT infrastructure to manage business
3. MSME's will get IT infrastructure without capital expenditure
Select the correct answer using the codes given below.
a. 1 only
b. 1 and 2 only
c. 2 only
d. 2 and 3 only

Mains Perspective
Model questions
Examine the importance of MSME's in the economic and social development of India. What are the problems faced by MSME's? Give your suggestions
Sources: pib

Govt. to shed stake in loss-making AI – Air India disinvestment
The government took the first step towards divesting its stake in ailing national carrier Air India, with an 'in-principle' approval from the Cabinet and the formation of a ministerial group under Finance Minister to work out the fine print for the airline's strategic sale.
Mains   : GS 3 Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

Cutting its losses

Disinvestment decided as a way out for the debt-ridden flag carrier

The Cabinet Committee on Economic Affairs, chaired by Prime Minister Narendra Modi, met on Wednesday. Decisions taken -

a In-principle approval for strategic disinvestment of Air India and five of its subsidiaries

b Constitution of an Air India-specific Alternative Mechanism to decide the following:

i) Treatment of unsustainable debt;

ii) Hiving off certain assets to a shell company;

iii) Demerger and strategic disinvestment of three profit-making subsidiaries;

iv) Quantum of disinvestment

v) Universe of bidders

एअर इंडिया
AIR INDIA

Image : The Hindu

The Maharajah's new clothes

1932: Founded by J.R.D. Tata as Tata Airlines

1946: Tata Airlines becomes a public limited company called Air India

Some facts on Air India
- 118 aircraft: 77 owned, 22 on sale & lease back, and 19 on dry lease
- 360 flights daily
- More than 18 million annual passengers

1948: GOI acquires 49% stake in the company; starts international operations as Air India International

1953: Air Corporation Act enacted to nationalise airline assets; Indian Airline Corporation (domestic operations) & Air India International established

1994: Air Corporation Act repealed to allow private airlines to operate on domestic routes; Air India, Indian Airlines converted into Limited Companies

2000: NDA govt. drops privatisation plan after deciding to sell 51% of equity of Indian Airlines and 60% of Air India

2007: Erstwhile Air India and Indian Airline merged into single entity named as National Aviation Company of India Limited (NACIL), later renamed as Air India Ltd.

2012: UPA rules out privatisation; approves turnaround plan to infuse over ₹30,000 crore till 2021

2017: Cabinet approves disinvestment of Air India in-principle

Domestic market share of Air India

19.4 (2013), 18.4 (2014), 16.4 (2015), 14.6 (2016), 13.3 (till May 2017)

IN %

SOURCE: BSE/DGCA

Image : The Hindu

Mains Perspective
Model questions
Can disinvestment be the answer to inefficiencies in Public sector enterprises. Critically evaluate
Sources: The Hindu pib

INAM-Pro + : The Web Platform for Sale and Purchase of Construction Material and Service
 INAM-Pro + was launched in New Delhi. INAM-Pro+ is an upgraded version of INAM-Pro, the web portal designed by National Highways and Infrastructure Development Corporation Ltd (NHIDCL) and launched by the Ministry two years back as a common

platform to bring cement buyers and sellers together. More than 700 construction companies have used INAM-Pro during the last two years. The portal facilitated comparison of price, availability of materials etc. and made it very convenient for the prospective buyers to procure cement at reasonable rates in a transparent manner. This reduced the time and effort in preparation of proposals and bid submissions, and helped increase efficiency in procurement of construction materials as one could place orders, obtain price quotes and track them in swift manner on this portal

DigiYatra'- A New Digital Experience for Air Travellers

The 'DigiYatra' is an industry-led initiative co-ordinated by the Ministry of Civil Aviation. 'DigiYatra' initiative aims to bring together entire industry to develop a digital ecosystem that will deliver Indian customers a seamless, consistent and paperless service experience at every touch point of their journey. This follows Air Sewa which brings together all the stakeholders on a common platform for handling customer grievances and disseminating real-time data. All aviation stakeholders – airlines, airport operators, security and immigration agencies, cab operators, retail establishment and others are working to devise digital standards which can enable seamless exchange of data and information. The platform will be built on 4 key pillars, like Connected Passengers, Connected Airports, Connected Flying and Connected Systems.

Mission Retro-Fitment to enhance the passenger experience.
To enhance the passengers experience by upgrading existing fleet of coaches with better furnishing, aesthetics & amenities and better safety features with a view to provide a safe and comfortable travel, Minister of Railways Shri Suresh Prabhakar Prabhu has launched MISSION RETRO-FITMENT in Rail Bhavan today. Mission Retro-Fitment is an ambitious program to upgrade the level of furnishing & amenities in the coaches of Indian Railways. This is one of the largest retro fitment project in the world as Indian Railways' 40,000 coaches will be refurbished and retrofitted in the next five years.

Launch of L&T Yard 55000 (Floating Dock – FDN 2)
The first indigenously built Floating Dock (FDN-2) for the Indian Navy was launched at an impressive ceremony at Larsen & Toubro Ltd (L&T) Shipyard at Kattupalli near Chennai. Floating Dock is an indigenously designed and built platform with state of the art machinery & control systems capable of docking warships of up to 8000 Tons displacement. It has high capacity Ballast Pumps, along with advanced automated Ballast Control System. The dock covers provided with the FDN-2 facilitate repair & refit activities in inclement weather conditions. The launch of Floating Dock (FDN-2), Yard 55000, designed in-house and built by L&T Shipyard, Kattupalli is a milestone in India's quest for self-reliance in shipbuilding.

India Signs Loan Agreement for "24X7 Power for All in Andhra Pradesh Project"

A Loan Agreement for part funding of USD 240 million from the World Bank (IBRD) and USD 160 Million from AIIB (60:40 ratio) for "24X7 Power for All in Andhra Pradesh Project" was signed . The objective of the project is to increase the delivery of electricity to customers and to improve the operational efficiency and system reliability in distribution of electricity in selected areas in Andhra Pradesh

India Signs Loan Agreement with the World Bank for USD 35 Million for "Assam State Public Financial Institutional Reforms Project"

An agreement for IBRD Credit of USD 35 Million from World Bank for "Assam State Public Financial Institutional Reforms Project" was signed. The programme size is USD 44 million, of which USD 35 million will be financed by the Bank, and the remaining amount will be funded out of State Budget. The programme duration is 5 years. The objective of the project is to improve predictability and transparency in budget execution and efficiency in tax administration in Assam. The project will benefit the citizens of Assam through efficient processes, enhanced transparency and better service delivery (such as electronic payments and collections for services, better public procurement, and enhanced taxpayer services) provided by public institutions.

PM inaugurates filling of Aji Dam under Sauni Yojana

The Prime Minister, Shri Narendra Modi, today inaugurated the filling of Aji Dam near Rajkot under Sauni Yojana. SAUNI Yojna is a project to divert one million acre feet (MAFT) of floodwater of Narmada to Saurashtra region and fill up 115 reservoirs of Saurashtra through a 1126-kilometre-long network of giant pipelines. The project envisages to channel the floodwater, which otherwise overflows the Narmada dam during monsoon and drains into the sea, to Saurashtra through Narmada main canal and Saurashra branch canal (CBC) of the Narmada dam project. The entire SAUNI project targets to provide irrigation water for 10.22 lakh acres of land in Saurashtra region.

GS 3 Environment and Ecology

Trump targets India, China as U.S. exits climate pact

The U.S. has stopped implementation of its commitments under the Paris climate agreement signed by 195 countries in 2015.

Mains : GS 2 International relations

GS 3 Conservation, environmental pollution and degradation, environmental impact

assessment.

Highlights
- US President has ignored pleas from international allies and a significant section of US political and business leaders while making the decision.
- US President accused that Paris agreement gives undue advantage to the world's leading polluters- India and China
- The US President said that china and India will be allowed to build coal power plants while US will need to phase out its coal plants.
- The agreement according to US President is less about the climate and more about other countries gaining a financial advantage over the U.S.

India ratified the agreement last year, and former President Barack Obama considered it as a defining legacy of his tenure.

Also Read : International Efforts to tackle climate change

Prelims Perspective

Sample question UPSC prelims 2016

With reference to the Agreement at the UNFCCC Meeting in Paris in 2015, which of the following statements is/are correct?

1. The Agreement was signed by all the member countries of the UN and it will go into effect in 2017.
2. The Agreement aims to limit the greenhouse gas emissions so that the rise in average global temperature by the end of this century does not exceed 2 °C or even 1.5 °C above pre-industrial levels.
3. Developed countries acknowledged their historical responsibility in global warming and committed to donate $ 1000 billion a year from 2020 to help developing countries to cope with climate change.

Select the correct answer using the code given below.

(a) 1 and 3 only

(b) 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

Mains Perspective

How effective is the international agreements when it comes to mitigating the effects of Climate change?

Sources: The Hindu

A law, this time for Antarctica – Antarctica policy of India

India is drafting a dedicated Antarctica policy and a law that will likely be tabled in the winter session of Parliament.

Mains : GS 3 Conservation, environmental pollution and degradation, environmental impact assessment.

- With the framing of Antarctica policy India is expected to have a clear policy on the consequences of its activities in the region.

Antarctica Treaty

- The treaty is framed to ensure that Antarctica will be used exclusively for peaceful purposes and shall not become the scene or object of international discord.
- It prohibits military activity, except in support of science; prohibits nuclear explosions and the disposal of nuclear waste; promotes scientific research and the exchange of data; and holds all territorial claims in abeyance.
- Several related conventions, such as the Conservation of Antarctic Seals (1972) and the Conservation of Antarctic Marine Living Resources (1980), are appended to this treaty for protection.
- These laws also mean that conventional concepts such as territories and jurisdictions do not hold good here.

India and Antarctica

- India is expanding its infrastructure development in Antarctica.
- The government is rebuilding its station, Maitri, to make it bigger and last for at least 30 years.
- Dakshin Gangotri, the first Indian base established in 1984, has weakened and become just a supply base.
- India is a signatory to the Antarctica Treaty.

Prelims perspective

Model questions

Which among the following is/are research base established by India in Antarctica?

1. Dakishn Gangotri
2. Maitri
3. Harsha
4. Bharati

Select the correct answer using the code given below:

a. 1 and 2 only

b. 1, 2 and 4 only

c. All of the above

d. 1 and 4 only

Sources: The Hindu

Tiny Orang roars on tiger density All India Tiger Estimation

Orang, the tiger reserve in Assam with the smallest core among 50 nationally protected areas, is host to 28 Tigers as per survey

Mains : GS 3 Conservation, environmental pollution and degradation, environmental impact assessment.

Highlights

- The count was revealed during phase IV of the all-India tiger estimation programme of the National Tiger Conservation Authority (NTCA).
- Spread over Darrang and Sonitpur districts Orang Tiger Reserve is the 49th in the country. It has the smallest core of 78.28 sq. km., and the cat density was revealed during a census done between January and March 2017.
- Kamlang Tiger Reserve in Arunachal is the 50th and latest to be notified.
- Density is calculated based on the number of tigers per 100 sq. km.
- With density of tigers being 35.44 Orang has the highest density nationally
- 24 camera trap images (17 females, four males and three as yet unidentified big cats) were taken during the exercise and the NTCA's statistical model put the number of big cats in the reserve at 28.

Framework of All India Tiger Estimation

- The All India Tiger Estimation exercise is one of the most crucial components of national tiger conservation efforts.
- Monitoring efforts began in 2006, and are undertaken every four years, through a three-phase approach.
- Phase I: Field data collection at the beat-level, by trained personnel and using a standardised protocol.
- Phase II: Analysis of habitat status of tiger forests using satellite data
- Phase III: Camera trapping to identify individual tigers from their unique stripe patterns.

What is "Phase IV"?

- Phase IV of the All India Tiger Estimation exercise is the process of intensive, annual monitoring of important 'source' populations of tigers.
- The methodology is developed by the Wildlife Institute of India (WII) and the National Tiger Conservation Authority (NTCA), in consultation with experts, and will use statistically sound procedures to estimate numbers of both tigers and their prey.
- The tiger monitoring protocol will use camera traps, at a density of 25 double-sided cameras per 100 square kilometres, and a minimum trapping effort of 1000 trap nights per 100 square kilometres.
- Prey population monitoring will be conducted simultaneously, using Distance sampling protocols

Prelims perspective

Model questions *[UPSC Prelims 2012]*

Consider the following protected areas:

1. Bandipur
2. Bhitarkanika
3. Manas

4. Sunderbans

Which of the above are declared Tiger Reserves?

a) 1 and 2 only

b) 1, 3 and 4 only

c) 2, 3 and 4 only

d) 1, 2, 3 and 4

Mains Perspective

Model questions

Examine the effectiveness of various species conservation programmes in achieving its stated objectives. Give your suggestions

Sources: The Hindu Conservation India

Water Quality Index set to be announced soon

A certain and easy way to find out pollution levels in water will be introduced in the coming weeks.

Mains : GS 3 Conservation, environmental pollution and degradation, environmental impact assessment

Highlights

- Based on the proposal of the Telangana State Pollution Control Board (TSPCB), the Central Pollution Control Board (CPCB) is working on coming up with a Water Quality Index, on the lines of Air Quality Index (AQI).

Also See : Air Quality Index

- A committee has been formed with senior environment scientists from various states to formulate models to assess the water quality.
- Taking four perimeters into consideration, the committee has developed three different models.
- the committee decided to have three different models for lakes and rivers, ground water and coastal waters.
- The parameters that will be considered will differ for each of the model.
- The different models are tested for accuracy of the output and final draft will be made public after Chairman of CPCB reviews the draft.
- The pollution boards will use the formulae developed by them to check for the quality of the water bodies and upload it on their websites.
- The committee members want to classify the lakes, groundwater and the coastal waters across the country based on the Water Quality Index.

Prelims Perspective

Similar questions **[UPSC Prelims 2016]**

In the cities of our country, which among the following atmospheric gases are normally considered in calculating the value of Air Quality Index?

1. Carbon dioxide

2. Carbon monoxide
3. Nitrogen dioxide
4. Sulfur dioxide
5. Methane

Select the correct answer using the code given below.

(a) 1, 2 and 3 only

(b) 2, 3 and 4 only

(c) 1, 4 and 5 only

(d) 1, 2, 3, 4 and 5

Mains Perspective

Model questions

The issues relating to worsening water quality and associated health risks is a growing concern. Discuss briefly various policy initiatives undertook by the government to curb pollution and examine how far it have been able to achieve its objective

Sources: The Hindu

India announces mounting of a National Mission on advanced ultra supercritical technologies for cleaner coal utilization - Mission Innovation

India announces mounting a National Mission on advanced ultra supercritical technologies for cleaner coal utilisation and setting up of two Centres of Excellence on Clean Coal Technologies.

Mains : GS 3 Conservation, environmental pollution and degradation, environmental impact assessment

Highlights

- In its quest for cleaner fuels, a National Mission on methanol and di-methyl ether is being mounted and a new centre on solar photovoltaic, thermal storage and solar fuels research has been approved ~ US $ 5 million.
- India also announced two MI-centric Funding Opportunities in Smart Grid and Offgrid Access at US $ 5 million each

The announcements was made at the 2nd Mission Innovation Ministerial and 8th Clean Energy Ministerial at Beijing, China.

Mission Innovation

- Mission innovation was launched in November 2015
- It is a landmark 5-year commitment to accelerate the pace of innovation and make clean energy widely affordable and accessible worldwide.
- MI now comprises 22 economies and the European Commission, representing the European Union, and collectively accounts for more than 80 percent of the world's total public financing of clean energy R&D.

- Energy ministers and other high-level delegates from 22 countries and the European Union convened at the Chinese National Convention Center in Beijing for the second Mission Innovation Ministerial (MI-2)
- Mission Innovation developed and launched 7 Innovation Challenges in November 2016. These Innovation Challenges focus on selected technical area where MI members believe increased international attention would make a significant impact. India is Co-leading three Challenges – Smart Grid, Off Grid Access and Sustainable Biofuels.

Prelims Perspective

Model questions

Mission innovation sometimes seen in news pertains to

a. development of technology to address poverty
b. India government' mission to support startups
c. make clean energy widely affordable and accessible worldwide.
d. making technology accessible to everyone

Sources: pib

Three new sites recognised as biodiversity hotspots in Goa

BirdLife International, a conservation organisation, has recognised three new sites in Goa as hotspots for protection. The sites have been added to their list of "Important Bird and Biodiversity Areas"

Mains :GS 3 Conservation, environmental pollution and degradation, environmental impact assessment.

New sites recognised

Bondla Wildlife Sanctuary, Navelim Wetlands and Netravali Wildlife Sanctuary have been added to the list published by Bombay Natural History Society.

The inclusion of these ecological hotspots in a new book come after systematic data collection by the Goa Bird Conservation Network (GBCN).

Areas recognised as important biodiversity centre earlier in Goa

- Bhagwan Mahavir Wildlife Sanctuary and Mollem National Park
- Carambolim Wetlands
- Cotigao Wildlife Sanctuary
- Mhadei Wildlife Sanctuary.

Significance

Declaring a site as an Important Bird and Biodiversity Area does not ensure that the site gets legal protection or becomes inaccessible to people. Instead BirdLife International encourages national and State governments to recognise the areas as sites of vital importance for conservation of wildlife and to empower local community-based conservation initiatives

Prelims perspective

Model questions *[UPSC Prelims 2014]*

With reference to Bombay Natural History Society (BNHS), consider the following statements

1. It is an autonomous organization under the Ministry of Environment and Forests.
2. It strives to conserve nature through action-based research, education and public awareness.
3. It organizes and conducts nature trails and camps for the general public.

Which of the statements given above is/are correct?

(a) 1 and 3 only

(b) 2 only

(c) 2 and 3 only

(d) 1, 2 and 3

Sources: The Hindu

What's up with Bosphorus? Bosphorus

The sudden transformation of the usually blue waters of the Bosphorus to a milky turquoise had alarmed some residents.

Mains   : GS 3 Conservation, environmental pollution and degradation, environmental impact assessment

Why colour change occurred?

- Scientists had attributed the colour change to a surge in a species of plankton across the Black Sea.
- A surge in numbers of the micro-organism Emiliania huxleyi, also known as Ehux has caused the colour change.

Significance

- The colour change of the sea was accompanied by a sharper smell and has got nothing to do with the pollution.
- The rise in numbers of phytoplankton is good for Anchovies a popular supper in Istanbul.
- Anchovies feed on phytoplanktons and tiny fish.

Emiliania huxley

- Emiliania huxleyi is a single-celled organism visible only under a microscope.
- Its astonishing adaptability enables it to thrive in waters from the equator to the sub-Arctic.
- This particular organism is plated with white calcium carbonate and, when present in large numbers, tend to turn the water a milky sheen

Bosphorus Strait

- The Bosporus Strait (or Bosphorus) connects the Black Sea to the Sea of Marmara. It also separates Asian Turkey from European Turkey (Trace), thus it

separates the two continents.
- Bordered on both sides by the massive city of Istanbul, the strait is one of the planet's most strategic waterways.

Prelims perspective

Model questions

Bosphorus Strait separates which of the following places?
   a. England and France
   b. Europe and Asia
   c. North America and Asia
   d. Australia and New Zealand

Sources: The Hindu World Atlas

Evolutionary secrets help Red Sea corals withstand heat

Global warming has in recent years caused colourful coral reefs to bleach and die around the world — but not in the Gulf of Eilat, or Aqaba, part of the northern Red Sea. A team is studying this unique coral which can survive global warming.

Mains : GS 3 Conservation, environmental pollution and degradation, environmental impact assessment

Highlights
- They are of the same species that grows elsewhere in the northern Red Sea and are resistant to high temperatures.
- The population of corals found on a reef is very resilient to high temperature changes, and is most likely going to be the last to survive in a world undergoing very significant warming and acidification of sea water

Why corals survive high temperatures in Northern red sea?

- One possible explanation is that the Gulf of Eilat corals fare well in heat due to their slow journey from the Indian Ocean through the Bab al-Mandab Strait, between Djibouti and Yemen, where water temperatures are much higher.
- Over the past 6,000 years, they underwent a form of selection through a very, very hot body of water, and only those that could pass through that hot water body reached here, the northern Red Sea and Gulf of Eilat.

What are corals ?

- Corals are formed by huge colonies of tiny organisms called polyps. They secrete calcium carbonate to form a protective crust around their soft bodies. When they die their outer skeletons remain as a platform for others to continue building the coral.
- The colour of Corals comes from zooxanthellae - a tiny single celled algae that live inside the tissues of polyps. the algae produce food through photosynthesis in return for the home provided by the polyps.

Coral Reefs and their importance

- Coral reefs are diverse underwater ecosystems held together by calcium

carbonate structures secreted by corals. Coral reefs are built by colonies of tiny animals found in marine waters that contain few nutrients..

- Most reefs grow best in warm, shallow, clear, sunny and agitated waters.
- Often called "rainforests of the sea", shallow coral reefs form some of the most diverse ecosystems on Earth. They occupy less than 0.1% of the world's ocean surface,yet they provide a home for at least 25% of all marine species

What is Coral bleaching?

- Bleaching occurs when abnormal environmental conditions, such as warmer sea temperatures, cause corals to expel tiny photosynthetic algae, draining them of their colour.
- The loss of algae makes the host vulnerable to disease may eventually lead to their death.

Recovery

Coral can recover if the water temperature drops and the algae are able to recolonise them.

Prelims Perspective

With reference to the coral reefs, consider the following statements:

1. Coral reefs are formed by tiny organisms called polyps
2. The colours of coral reefs come from calcium carbonate secreted by polyps
3. zooxanthellae and coral polyps has symbiotic association

Select the correct answer using the code given below:

a. 1 and 2 only
b. All of the above
c. 1 and 3 only
d. 1 and 2 only

Mains Perspective

To see how Environment and ecology questions are asked in the examination visit our IAS preparation page

Sources: The Hindu World Atlas The Hindu , Coral Reef Environmental Studies From Crisis to Cure

At 399 ppm, India matches the world in atmospheric carbon dioxide levels

The atmospheric carbon dioxide concentration over India is way above the safety mark and in line with what has been observed in other parts of the world.

Mains   : GS 3 Conservation, environmental pollution and degradation, environmental impact assessment.

Atmospheric Carbon dioxide levels in India

Satellite data show concentrations highest over Uttar Pradesh and Madhya Pradesh and lower over South India

What is the safe limit of Carbon dioxide in the atmosphere?

- It's generally been agreed that for every million gas molecules in the atmosphere, anything beyond 350 carbon dioxide molecules, is considered unsafe.
- In 2015, the global average was 400 ppm
- In India the average CO_2 level was 399 parts per million (ppm) in 2015

Why Carbon dioxide concentration in the atmosphere matter?

High concentrations are likely to trap enough heat to trigger extreme climate events the world over and it would become progressively harder, and costlier, to suck out the excessive CO_2.

How are these measured?

- Since the 1950s, scientists have been measuring the concentration of CO_2 in the atmosphere at observatories such as Mauna Loa in Hawaii and since the 1990s, using satellite images.
- However, at Cape Rama, a coastal station in Goa, where CO_2 levels have been monitored for over a decade, the level shot up to 408 ppm.
- The findings are based on readings from the Orbiting Carbon Observatory-2 (OCO-2) — a NASA satellite to monitor the environment

Possible causes

- Lack of a CO_2 sink
- Point sources like forest fires or biomass burning or an urban source,
- Gaseous transport from neighbouring regions based on prevailing weather conditions,

Generally, CO_2 levels increase slightly during winter due to reduced vegetation but for this study, the observations were made from March to July in 2015.

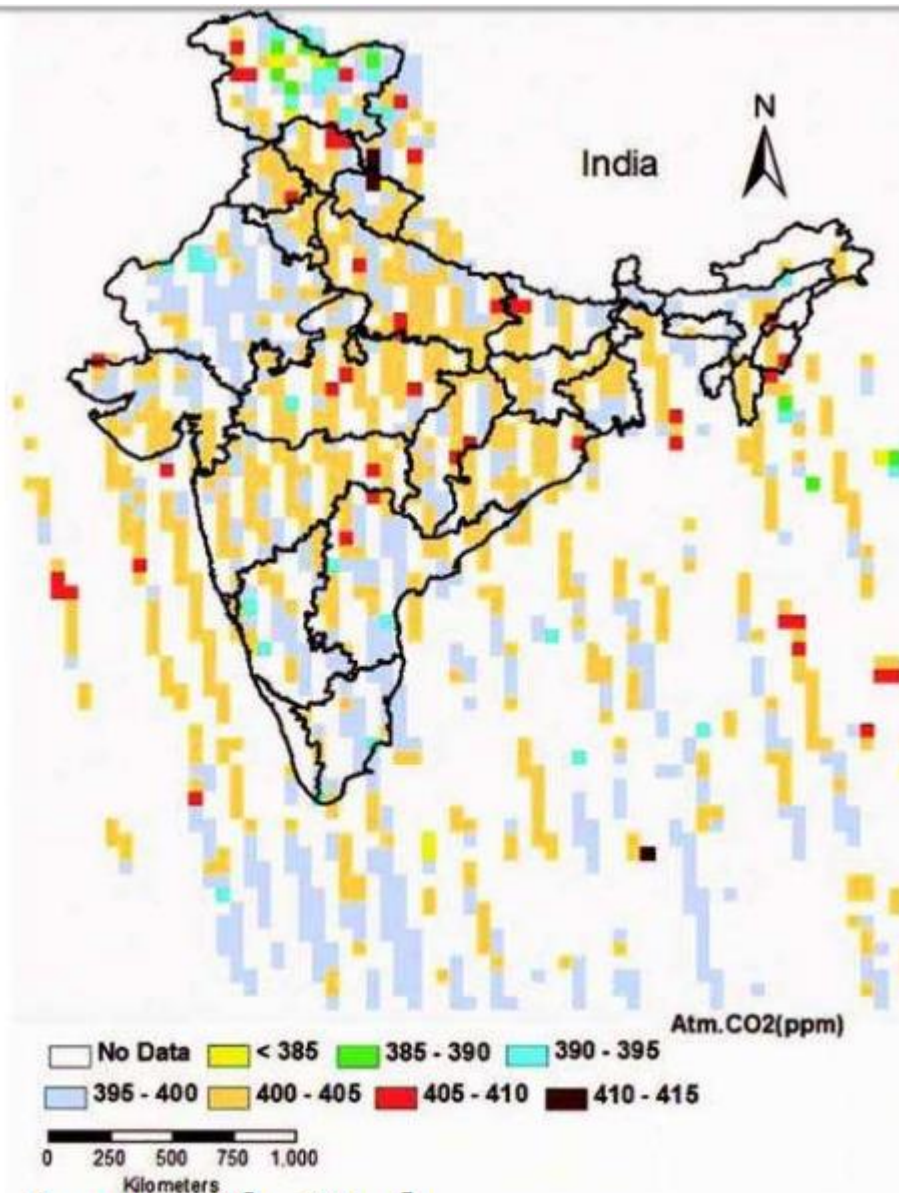Image : The Hindu

Prelims perspective

Model questions *[UPSC Prelims 2012]*

The increasing amount of carbon dioxide in the air is slowly raising the temperature of the atmosphere because it absorbs

a) the water vapour of the air and retains its heat

b) the UV part of the solar radiation

c) all the solar radiations

d) the infrared part of the solar radiation

Sources: The Hindu

GS 3 Science and Technology

INS Kalvari to join Navy by July

It is the first of the six French Scorpene submarines being built in India

Prelims : Current events of national and international importance.

Project 75

Six Scorpene submarines are being built under Project-75 by Mazagon Docks Ltd. with technology transfer from DCNS, a French naval shipbuilder.

INS Kalvari

Kalvari is named after a deep-sea tiger shark. INS Kalvari (S50) is the first of the Indian Navy's six Kalvari-class submarines being built in India. It is a diesel-electric attack submarine which is designed by DCNS (French naval defence and energy company) and being manufactured at Mazagon Dock Limited in Mumbai.

- Kalvari has a superior stealth technology compared to previous diesel-electric submarines.
- It can launch massive attacks through precision guided weapons.
- An attack can be launched through this submarine with torpedoes as well as tube launched anti-ship missiles on the surface of the water or beneath it as well.
- It can work in all settings including the tropics, wherein various means and communications are in place to ensure interoperability with various components of the naval task force.
- Numerous defence activities can be carried out through this stealth submarine including mine laying, area surveillance, anti-submarine warfare, intelligence gathering and multifarious warfare activities.
- Kalvari is being constructed from special steel and she can withstand high yield stress because she possesses tensile strength, moreover she can withstand hydrostatic force of high magnitude and dive deeper into the oceans.

Trial for Khanderi

The second Scorpene submarine Khanderi — named after an island fort of Maratha ruler Chhatrapati Shivaji — was launched in the sea in January and will begin sea trials.

Prelims perspective

Model questions

INS Kalvari was in news recently. Which of the following is/are correct with reference to Kalvari?

1. It is being built under Project 15 in collaboration with Israel.
2. It is a diesel-electric attack submarine manufactured at Mazagon Dock Limited in Mumbai.

Select the correct answer using codes given below:

A. 1 only
B. 2 only

C. Both 1 and 2
D. None of the above

Sources: The Hindu

Third gravitational wave merger detected - Gravitational waves

The Laser Interferometer Gravitational-wave Observatory (LIGO) detectors in the U.S. have detected yet another merger of two black holes.

Prelims : General Science.

Mains   : GS 3 Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Highlights

- Named GW170104, this signal marks the third confirmed detection of gravitational waves coming from a binary black hole merger.
- The observation supports Einstein's General Theory of Relativity. According to this theory, gravitational waves, unlike light waves, will not disperse as they travel through space. This, too, has been confirmed by the analysis of the latest signal.
- One drawback of having just the two detectors at Hanford and Livingstone tuned to detect gravitational waves is that they cannot accurately figure out where in the sky the signal is coming from.

What are gravitational waves?

- Gravitational waves are 'ripples' in the fabric of space-time caused by some of the most violent and energetic processes in the Universe.
- Albert Einstein predicted the existence of gravitational waves in 1916 in his general theory of relativity.
- Einstein's mathematics showed that massive accelerating objects (such as neutron stars or black holes orbiting each other) would disrupt space-time in such a way that 'waves' of distorted space would radiate from the source (like the movement of waves away from a stone thrown into a pond). Furthermore, these ripples would travel at the speed of light through the Universe, carrying with them information about their cataclysmic origins, as well as invaluable clues to the nature of gravity itself.
- The strongest gravitational waves are produced by catastrophic events such as colliding black holes, the collapse of stellar cores (supernovae), coalescing neutron stars or white dwarf stars, the slightly wobbly rotation of neutron stars that are not perfect spheres, and the remnants of gravitational radiation created by the birth of the Universe itself.

What is LIGO?

- The Laser Interferometer Gravitational-Wave Observatory (LIGO) is a large-scale physics experiment and observatory to detect cosmic gravitational waves and to

develop gravitational-wave observations as an astronomical tool.
- Two large observatories were built in the United States with the aim of detecting gravitational waves by laser interferometry.

Prelims Perspective

Which of the following are the key features of Gravitational waves?
1. They are distortions in the fabric of space-time caused by some of the most violent and energetic processes in the Universe.
2. The effect of such waves is very strong over a vast area in space.

Select the correct answer using the code given below:
a. 1 only
b. 2 only
c. Both 1 and 2
d. None of the above

Sources: The Hindu Wikipedia https://www.ligo.caltech.edu/page/what-are-gw

India's polar ship still a long way off –Polar Research Vehicle

India's plans to acquire a ₹ 1,000-crore polar research vehicle (PRV) may see fresh delays.

Prelims : General Science.

Mains : GS 2 Science and Technology- developments and their applications and effects in everyday life .

The news

India's plans to acquire a ₹ 1,000-crore polar research vehicle (PRV) — **a ship that can cut through ice sheets and glaciers** — may see fresh delays.

What is Polar ice breaker and why India needs it?
- The 'ice-breaker,' as these ships are colloquially called, can cut through a 1.5-metre thick wall of ice
- With a lifespan of 30 years, the ship is expected to be central to India's ambitions in the Arctic and Antarctica in coming years.
- India has announced plans to rebuild Maitri, its research station in Antarctica, and make it impervious to its harsh environment for at least 25 years.

Why delays?

Though a Spanish ship-building company was roped in, in early 2015, the contract fell through, primarily due to escalated costs.

What's next?
- The new 'Make in India' policy gives Indian companies an edge in bagging these contracts, which are open to international and local bidders.
- This concession allows an Indian company, which may have lost out to a foreign company in the final bidding stage on price, to match the latter's lower, winning bid and bag the contract.

- Indian ship companies are not experienced in building PRVs and insisting on Indian companies for the sake of it may mean longer delays

Sources: The Hindu

Army to induct 18 Dhanush artillery guns this year – Dhanush artillery gun
The first regiment of 18 Dhanush artillery guns, is scheduled to be inducted into the Army
Mains   : GS 3 Achievements of Indians in science & technology; indigenization of technology and developing new technology.

Dhanush artillery guns
- Dhanush is an upgraded version, based on the original design of the Swedish 155-mm Bofors howitzers, which India procured in the mid-1980s.
- Dhanush has undergone extensive trials in various conditions, and is now in the final leg of battery trials.
- It is a medium gun with a maximum range of 40 km, and has a high angle of attack.
- It can be deployed in both deserts and mountains.
- It is 80% indigenous, and is manufactured by the ordnance factory in Jabalpur.

Prelims perspective
Similar Question *[UPSC Prelims 2016]*
Which one of the following is the best description of 'INS Astradharini', that was in the news recently?
(a) Amphibious warfare ship
(b) Nuclear-powered submarine
(c) Torpedo launch and recovery vessel
(d) Nuclear-powered aircraft carrier

Sources: The Hindu

India successfully fires heaviest launch vehicle - , GSLV MkIII-D1
The Indian Space Research Organisation (ISRO) successfully launched its heaviest launch vehicle, GSLV MkIII-D1, and placed the country's heaviest satellite till date, GSAT-19, into a precise orbit.
Mains   : GS 2 Achievements of Indians in science & technology; indigenization of technology and developing new technology.

GSAT - 19
- The GSAT-19, a communication satellite is expected to enhance India's communication infrastructure, was placed into a Geosynchronous Transfer Orbit (GTO).
- It will take about two to three weeks to be placed in its intended orbit.
- The satellite weighs 3,136 kg.
- This successful launch will enable India to launch 4-tonne class satellites from

India.

- ISRO has been trying to master development of an indigenous cryogenic for decades and has used indigenous cryogenic engines on earlier GSLV flights but modelled mainly on Russian designs.
- The GSAT-19 carries a Ka/Ku-band high throughput communication transponders.
- It also carries a Geostationary Radiation Spectrometer (GRASP) payload to monitor and study the nature of charged particles and the influence of space radiation on satellites and their electronic components, according to ISRO.
- The successful launch of the GSLV MkIII- D1 also opens up business opportunities for ISRO.

The Geosynchronous Satellite Launch Vehicle Mark III (Launch Vehicle Mark 3, LVM3 or GSLV-III)

- The Geosynchronous Satellite Launch Vehicle Mark III (GSLV Mk- III) is the heaviest rocket ever made by India.
- It will also improve ISRO's ability to reach heavier satellites to both — the higher geostationary transfer orbit or GTO of 36,000 km; and to low-Earth orbit or LEO of up to 800 km.
- It is intended to launch satellites into geostationary orbit and as a launcher for an Indian crew vehicle.
- It will allow India to achieve complete self reliance in launching satellites
- It will be capable of placing 4 tonne class Geosynchronous satellites into **Geosynchronous Transfer Orbits and** will be capable of placing up to 8 tonne in a low Earth orbit, enough to carry India's crew module.
- The LVM3 will have an Indian built cryogenic stage with higher capacity than GSLV.

A cryogenic rocket engine is a rocket engine that uses a cryogenic fuel or oxidizer, that is, its fuel or oxidizer (or both) are gases liquefied and stored at very low temperatures.

- GSLV-Mk III (earlier named Launch Vehicle Mark-3) could be India's vehicle of choice to launch Indians into space, from Indian soil using Indian rockets.
- ISRO has already prepared plans of hoisting a two to three human crew into space as soon as the government gives it a sanction of about $4 billion.
- Presently only three countries -Russia, the U.S. and China- have a human spaceflight programme.

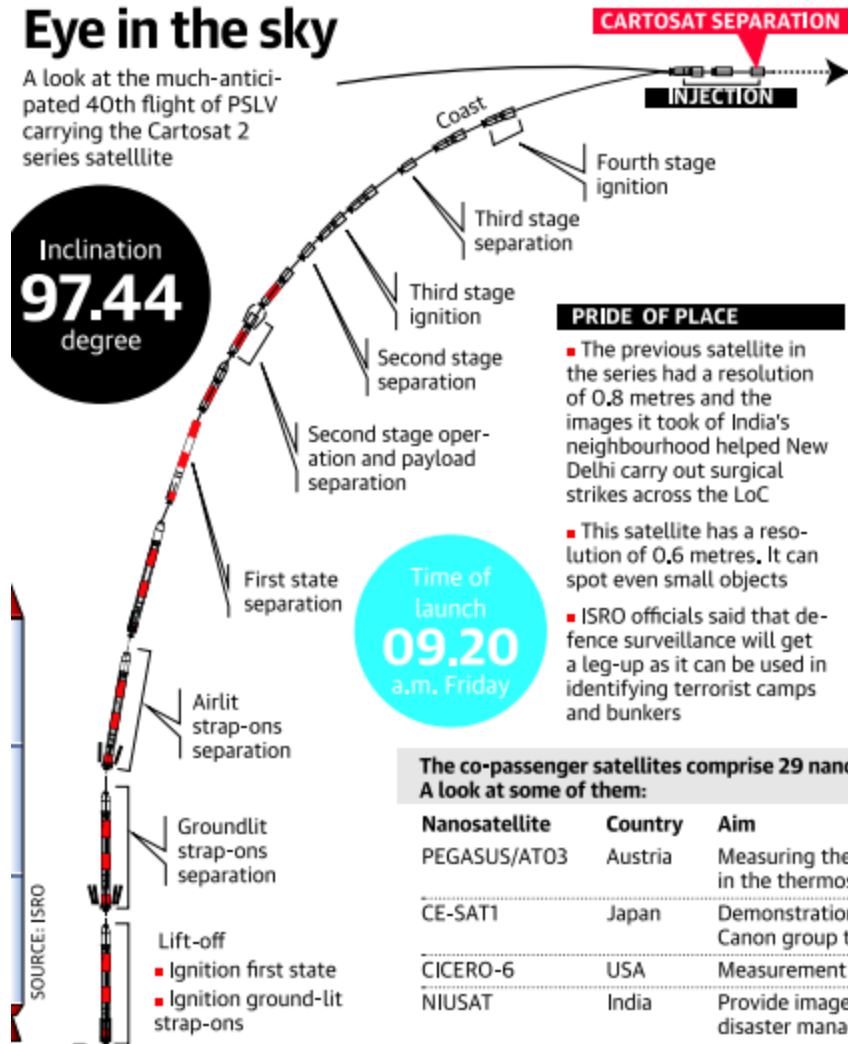**PSLV-C38 lobs 31 satellites into orbit**

The Indian Space Research Organisation (ISRO) successfully launched 31 satellites – 29 of them belonging to other countries through a PSLV (Polar Satellite Launch Vehicle).

Mains : GS 2 Achievements of Indians in science & technology; indigenization of technology and developing new technology.

Eye in the sky

A look at the much-anticipated 40th flight of PSLV carrying the Cartosat 2 series satellite

Inclination
97.44
degree

CARTOSAT SEPARATION

INJECTION

Coast

Fourth stage ignition

Third stage separation

Third stage ignition

Second stage separation

Second stage operation and payload separation

First state separation

Time of launch
09.20
a.m. Friday

Airlit strap-ons separation

Groundlit strap-ons separation

Lift-off
- Ignition first state
- Ignition ground-lit strap-ons

SOURCE: ISRO

THE MISSION

India's Polar Satellite Launch Vehicle (PSLV-C38) will launch the 712 kg Cartosat-2 series satellite for earth observation, and 30 co-passenger commercial satellites from Sriharikota

Primary satellite
Cartosat-2 is a remote sensing satellite. Its imagery will be useful for:

- Cartographic applications
- Coastal land use and regulations
- Utility management like road network monitoring
- Water distribution
- Creation of land use maps
- Various GIS and Land Information System applications
- This will be the 40th flight of PSLV, and its 17th flight in 'XL' configuration (with the use of solid strap-on motors)

PRIDE OF PLACE

- The previous satellite in the series had a resolution of 0.8 metres and the images it took of India's neighbourhood helped New Delhi carry out surgical strikes across the LoC
- This satellite has a resolution of 0.6 metres. It can spot even small objects
- ISRO officials said that defence surveillance will get a leg-up as it can be used in identifying terrorist camps and bunkers

The co-passenger satellites comprise 29 nano satellites from 14 countries. A look at some of them:

Nanosatellite	Country	Aim
PEGASUS/ATO3	Austria	Measuring the plasma temperature and density in the thermosphere
CE-SAT1	Japan	Demonstration of remote sensing based on Canon group technology
CICERO-6	USA	Measurement of global weather patterns
NIUSAT	India	Provide imagery for crop monitoring and disaster management support applications

PSLV C 38

- This was PSLV's 40th flights
- The PSLV, in its 40th flight, carried the Cartosat-2 series, main payload that weighs 712 kg, and NIUSAT from the Noorul Islam University, Kanyakumari.
- The Cartosat-2, the sixth in the series, was placed in a 505 km polar sun synchronous orbit
- The Cartosat will provide remote sensing services for about five years.

ISRO's GSAT-17 launched successfully from French Guiana

Indian Space Research Organisation (ISRO)'s latest communication satellite GSAT-17 was successfully launched by a heavy duty rocket of Arianespace from the spaceport of Kourou in French Guiana.

Mains   : GS 2 Achievements of Indians in science & technology; indigenization of technology and developing new technology.

GSAT 17

- Weighing 3477 kg at lift-off, GSAT-17 carries Payloads in Normal C-band, Extended C-band and S-band to provide various communication services.
- GSAT-17 also carries equipment for metereological data relay and satellite based search and rescue services being provided by earlier INSAT satellites.
- GSAT-17 is designed to provide continuity of services on operational satellites in C-band, Extended C-band and S-bands.
- GSAT-17 was launched into a Geosynchronous Transfer Orbit (GTO) by Ariane-5 VA-238 launch vehicle.
- After its injection into GTO, ISRO's Master Control Facility (MCF) at Hassan takes control of GSAT-17 and performs the initial orbit raising maneuvers using the Liquid Apogee Motor (LAM) of the satellite, placing it in circular Geostationary Orbit.
- The designed in-orbit operational life of GSAT-17 is about 15 years.

India gets a sharper eye in the sky
Recently launched Cartosat-2E sends pictures from 500 km above the earth
Mains   : GS 2 Achievements of Indians in science & technology; indigenization of technology and developing new technology.

About Cartosat 2E
- Cartosat-2E, is the third Indian remote sensing (IRS) or earth observation satellite that can send 60-cm resolution pictures from an orbit 500 km above the earth.
- Cartosat-2E is the sixth and last of the second generation cartography themed series, which started in 2007 with Cartosat-2 and includes Cartosat-2A, 2B, 2C and 2D.
- The last three are said to be exclusive to defence and security agencies.
- Cartosat-2E offers images of the same 60-cm resolution as 2C and 2

Significance
- Primarily it will provide useful space-based data for town planners, creators of urban infrastructure, for agriculture and project monitoring, and for decision makers in Smart City and AMRUTH projects, the Indian Space Research Organisation (ISRO).
- The prices of high resolution satellite data in the international market were six times more than the prices of comparable products of Indian remote-sensing satellites.

Prelims Perspective
Model questions
1) Which of the following statements regarding Cartosat 2E is/are correct?
1. It offers sub 1 meter resolution images
2. It will provide useful space-based data for town planners
Select the correct answer using the codes given below

a. 1 only
b. 2 only
c. Both 1 and 2
d. None of the above

2) Which of the following statements regarding GSAT 17 is/are correct?
1. It was launched on PSLV C38
2. It is a communication satellite weighing 3477 kg
3. The satellite was developed jointly by team Indus and ISRO

Select the correct answer using the codes given below
a. 1 only
b. 2 only
c. 2 and 3 only
d. All of the above

3) Which of the following statements regarding Cartosat 2 is/are correct?
1. It was launched on GSLV C38
2. Coastal land use and regulation is one of its applications
3. The satellite was developed jointly by team Indus and ISRO

Select the correct answer using the codes given below
a. 1 only
b. 2 only
c. 2 and 3 only
d. None of the above

Similar Questions *[UPSC Prelims 2016]*

With reference to `Astrosat', the astronomical observatory launched by India, which of the following statements is/are correct?
1. Other than USA and Russia, India is the only country to have launched a similar observatory into space.
2. Astrosat is a 2000 kg satellite placed in an orbit at 1650 km above the surface of the Earth.

Select the correct answer using the code given below.
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
Solution: D

Mains perspective.

● Discuss India's achievements in the field of Space Science and Technology. How the application of this technology has helped India in its Socio-economic development? *[UPSC Mains 2016]*

Sources: The Hindu The Hindu The Hindu ISRO Wikipedia Wikipedia The Hindu

SELFLEARN

The Indian Express ISRO The Hindu

Navigation Indian Constellation?

NavIC, the indigenously built satellite- based positioning system, has developed a technical snag in the atomic clocks on its first satellite.

Mains : GS 3 Achievements of Indians in science & technology; indigenization of technology and developing new technology.·

The issue

- Because navigation requires the most accurate clocks, the ₹1,420-crore NavIC relies on rubidium clocks. Each of the seven satellites has three of them on-board. However, all the three clocks on IRNSS 1A had failed
- Though six of the satellites are working fine, the one, faulty one means the "GPS" isn't working as accurately as it ought to be.
- Without its clocks, the IRNSS-1A "will give a coarse value. It will not be used for computation. Messages from it will still be used."

Atomic Clock

- Atomic clock is an extremely accurate type of clock which is regulated by the vibrations of an atomic or molecular system such as caesium or ammonia.
- Atomic clocks are the most accurate time and frequency standards known, and are used as primary standards for international time distribution services, to control the wave frequency of television broadcasts, and in global navigation satellite systems such as GPS.

Indian Regional Navigation Satellite System (IRNSS)/Navigation Indian Constellation (NavIC)

- IRNSS is an independent regional navigation satellite system being developed by India.
- IRNSS consist of seven satellites namely, IRNSS-1A, 1B, 1C, ID,1E, 1F and 1G
- It is designed to provide accurate position information service to users in India as well as the region extending up to 1500 km from its boundary, which is its primary service area.
- IRNSS will provide two types of services, namely, Standard Positioning Service (SPS) which is provided to all the users and Restricted Service (RS), which is an encrypted service provided only to the authorised users.
- The IRNSS System is expected to provide a position accuracy of better than 20 m in the primary service area.

Some applications of IRNSS are:

- Terrestrial, Aerial and Marine Navigation
- Disaster Management
- Vehicle tracking and fleet management
- Integration with mobile phones

- Precise Timing
- Mapping and Geodetic data capture
- Terrestrial navigation aid for hikers and travellers
- Visual and voice navigation for drivers

Prelims perspective

Model questions

Which of the following statements regarding IRNSS are correct?

1. The constellation of eight satellites will provide position information service to users in India and the area within 1500 km of its boundary.
2. All the 8 satellites are already put in its orbits successfully.
3. IRNSS have varied applications from tracking of vehicles, navigation, aerial,marine and terrestrial mapping, disaster management etc.

Options

a. 1 & 2 only

b. 2 only

c. 1 only

d. 3 only

Mains Perspective

Model questions

What do you understand by 'Standard Positioning Systems' and Precision Positioning Systems' in the GPS era ? Discuss the advantages India perceives from its ambitious IRNSS programme employing just seven satellites. *[UPSC Mains 2015]*

Sources: The Hindu The Hindu

'Hottest' planet in universe discovered – Kelt 9b

Scientists have discovered the hottest known planet located 650 light years from Earth, which is warmer than most stars in the universe and sports a giant, glowing gas tail like a comet.

Mains : GS 3 Awareness in the fields of IT, Space

KELT-9b

- The newly discovered exoplanet named KELT-9b is hotter than most stars with a day-side temperature peaking at 4,326 degree Celsius,
- It is only 926 degree Celsius cooler than our Sun.
- The Jupiter-like planet orbits a massive star KELT-9 every day and a half.
- The ultraviolet radiation from the star it orbits is so brutal that the planet may be evaporating away under the intense glare, producing a glowing gas tail.
- The gas giant is 2.8 times more massive than Jupiter but only half as dense,
- Molecules such as water, carbon dioxide and methane can not form there due to high temperature.

Prelims perspective

Model questions

KELT 9b recently in news is

    a. NASA's space mission

    b. A Japanese robot

    c. ISRO's artificial intelligence programme

    d. an exoplanet

Sources: The Hindu

Child-friendly HIV drug gets govt. Nod – Lopinavir syrup

The Central Drugs Standard Control Organisation (CDSCO) has registered the child-friendly HIV drug in oral pellet form, ending months of uncertainty for the HIV community.

Mains : GS 2 Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

The issue

- India ran out of Lopinavir syrup, a child-friendly HIV drug, after Cipla — the sole manufacturer of the drug — stopped production consequent to non-payment by the Health Ministry.

- The drug's adult version has to be swallowed whole and thus cannot be administered to infants and young children.

The news

- Recently an expert committee of the CDSCO (Central Drugs Standard Control Organisation) had permitted the child-friendly and heat-stable pellet formulation of the HIV drug lopinavir/ritonavir (LPV/r) to be registered.

- The approval of child friendly HIV drug has crucial supplies from Cipla Pharmaceuticals, a market leader in the HIV segment, to the National AIDS Control Programme (NACO), which had been struggling to source quality assured paediatric formulations of the drug.

- The pellets, which come in capsules and are dosed by weight, can be sprinkled (but not stirred or crushed) over a small amount of soft food.

Prelims Perspective

Model questions

Lopinavir sometimes seen in news is

    a. medicine for hepatitis B

    b. Vaccine developed against Zika

    c. Child friendly HIV drug

    d. Tuberculosis drug

Sources: The Hindu

WHO revises antibiotics protocol

WHO has divided the drugs into three groups in a bid to curb antibiotic resistance.

Mains   : GS 3 Science and Technology- developments and their applications and effects in everyday life .

How WHO divided the drugs?

- The World Health Organization (WHO) has divided the drugs into three categories — access, watch and reserve — specifying which are to be used for common ailments and which are to be kept for complicated diseases.
- Commonly used antibiotics will be under the 'access' category; the second line of antibiotics, slightly more potent, have been categorised under "watch" and potent drugs to be used only as a "last resort" fall under the 'reserve' category.
- **Significance :** This is the biggest revision of the antibiotics section in the 40-year history of the essential medicines list (EML).
- The WHO has now recommended that antibiotics in the 'access' group, be available at all times as treatment for a wide range of common infections.

Why WHO made a new type of classification?

- The rise in antibiotic resistance stems from improper usage of these medicines.
- The new WHO list will help health system planners and prescribers ensure that people who need antibiotics have access to them, and ensure they get the right one, so that the problem of resistance doesn't get worse.
- The WHO has now recommended that antibiotics in the 'access' group be available at all times as treatment for a wide range of common infections. This includes amoxicillin, a widely-used antibiotic to treat infections such as pneumonia.
- The new categorisation will guide countries in ensuring access to appropriate antibacterial agents

World Health Organization (WHO) – Quick Facts

- The World Health Organization (WHO) is a specialized agency of the United Nations that is concerned with international public health.
- It was established on 1948 and is headquartered in Geneva, Switzerland.
- The WHO is a member of the United Nations Development Group. Its predecessor, the Health Organization, was an agency of the League of Nations.
- The WHO is responsible for the World Health Report, a leading international publication on health, the worldwide World Health Survey, and World Health Day (7 April of every year).
- The WHO is financed by contributions from member states and outside donors.

Prelims perspective

Model questions

Which of the following statements regarding World Health organization is/are correct?

1. WHO has recently classified drugs into three categories to curb antibiotic

resistance
2. World Health survey report is published by WHO.

Select the correct answer using the code given below.

a. 1 only
b. 2 only
c. Both 1 and 2
d. Neither 1 nor 2

Mains Perspective

Model questions *[UPSC Mains 2014]*

Can overuse and free availability of antibiotics without Doctor's prescription, be contributors to the emergence of drug-resistant disease's in India? What are the available mechanisms for monitoring and control? Critically discuss the various issues involved.

Sources: The Hindu Wikipedia

WHO for use of devices to test multiple diseases - GeneXpert

The World Health Organization (WHO) released new advice to countries, recommending the use of multi-disease testing devices for Tuberculosis, HIV and Hepatitis.

Mains : GS 3 Science and Technology- developments and their applications and effects in everyday life .

About the device - GeneXpert

● A single device called the GeneXpert can be used to diagnose TB and HIV infections, and quantitatively measure HIV and hepatitis C viral loads.
● India recently procured 600 GeneXpert machines for the National Tuberculosis programme.
● The WHO is recommending use of these state-of-the-art portable machines the size of a microwave oven, which can run molecular tests.
● Most countries do not use them for multi-disease testing.
● These platforms offer technical and financial efficiencies to countries in their disease control efforts, while expanding access to care."
● GeneXpert machines — initially procured by countries for the detection of TB and rifampicin resistance, following an initial WHO recommendation in December 2010 — were subsequently expanded for use in early infant diagnosis of HIV and viral load testing using relevant cartridges in the same device.

One-stop shop for disease testing

The new multi-disease testing device is

- The size of a microwave oven
- Can run molecular tests
- Can diagnose TB and HIV infection
- Can measure the viral loads of Hepatitis C
- Has been encouraged for use in multi-disease testing by the WHO

Image : The Hindu

Prelims perspective

Model questions

GeneXpert sometimes seen in news is related to

    a. technique for diagnosing congenital diseases
    b. gene editing technique approved by WHO
    c. Multi disease testing
    d. WHO approved procedure for diagnosing rubella

Sources: The Hindu Wikipedia

Nanoparticles to treat eye infection - Keratitis

Scientists at the Hyderabad-based CSIR-Centre for Cellular and Molecular Biology (CSIR-CCMB) have developed a novel way to treat fungal keratitis.

Mains : GS 3 Achievements of Indians in science & technology; indigenization of technology and developing new technology.

What is Keratitis?

- Keratitis is the inflammation of the eye, which starts with redness and itching and might eventually lead to blindness.
- Keratitis can be caused by both bacteria and fungi.
- Fungi attach themselves to the cornea and release enzymes that break down the corneal proteins for their nutritional requirements.
- In the process the cornea also gets inflamed.
- Corneal damage causes wound and scar formation leading to severe visual

impairment.
- It is estimated that about 30% of keratitis cases in India lead to blindness.

Significance of the inventions
- Treating keratitis infection is currently a challenge because it is difficult to maintain a therapeutic dose at the corneal surface for long periods as blinking and tear formation washes off the drug.
- A two-member team developed protein-based nanoparticles that encapsulate the drug. Certain antibodies get attached to the outer surface of the nanoparticles, thus anchoring the nanoparticles to the corneal surface.
- The enzymes secreted by fungi breaks down the gelatine protein of nanoparticles that encapsulates the drug, thus releasing the drug.
- The gelatine protein acts as an alternative nutrient for the fungi. The fungi also degrade the gelatine-based nanoparticle to derive nutrients thus minimising the damage to the corneal tissue. In the process it releases the drug. In a sense, the fungi are committing suicide by consuming the gelatine protein

Prelims perspective
Model questions
Keratitis is a condition characterised by
- a. eye inflammation
- b. heart diseases
- c. loss of memory
- d. None of the above

Sources: The Hindu

Successful Flight Test of ATGM Nag - NAG
The Anti-Tank Guided Missile Nag was successfully flight tested in the desert ranges of Rajasthan.
Prelims : General Science.
Mains   : GS 3 Achievements of Indians in science & technology; indigenization of technology and developing new technology.
Nag
- Nag is a third generation "fire-and-forget" anti-tank missile developed in India.
- It is one of five missile systems developed by the Defence Research and Development Organisation (DRDO) under the Integrated Guided Missile Development Program (IGMDP).
- The Fire and Forget 3rd generation ATGM Nag is incorporated with many advanced technologies including the Imaging Infrared Radar (IIR) Seeker with integrated avionics, a capability which is possessed by few nations in the world.

Prelims perspective
Model questions

Which one of the following is the best description of 'Nag' - developed by DRDO', that was in the news recently?
(a) Weapon locating radar (WLR)
(b) Surface to air missile
(c) Anti Tank missile
(d) Nuclear-powered mobile military base
Sources: pib Wikipedia

Endurance of Scorpenes to go up – Air Independent Propulsion system
The Navy is planning to instal Air Independent Propulsion (AIP) modules on all six Scorpene submarines to extend their endurance. This will be done when the submarines go for normal refit which is six years after their induction.

Mains   : GS 3 Achievements of Indians in science & technology; indigenization of technology and developing new technology.

Highlights
- The submarines will be retrofitted with new modules six years after induction
- It is a long and expensive process, involving re-designing, as it would entail opening up the hull of the submarine, then integrating the plug before resealing it.
- The first Scorpene submarine Kalvari is all set to join the Navy and would go for its normal refit in 2023. The remaining five submarines are expected to be inducted at nine-month intervals.

What is Air Independent propulsion system?
- The Air independent propulsion system module enables conventional submarines to stay remain underwater for a longer duration greatly increasing the submarines stealth characteristics.

Why AIPs are not installed on submarines?
- AIP module is not part of the original Scorpene contract but the Navy has been keen on having them fitted on the last two of the six Scorpene submarines being manufactured by the Mazagon Dock Limited (MDL) in Mumbai.
- The AIP module is being developed by Defence Research and Development Organisation (DRDO) and was supposed to be installed before the submarines roll out. However, a delay in development scuttled the plan.

What is Project 75?
- The Project 75I-class submarine is a follow-on of the Project 75 Kalvari-class submarine for the Indian navy.
- Under this project, the Indian Navy intends to acquire 6 diesel-electric submarines,
- All six submarines are expected to be constructed in Indian shipyards.
- The Project 75I-class submarines will have a vertical launch system(VLS) to enable them to carry multiple Brahmos supersonic cruise missiles, making the

submarines fully capable of anti-surface and anti-ship warfare missions.

- Project 75I submarines will also be armed with torpedoes and will feature advanced stealth capabilities such as a greater ability to suppress noise and acoustic signatures.
- The first Scorpène submarine, INS Kalvari (named after a deep sea tiger shark), was undocked from the pontoon on 6 April 2015 and launched on 28 October 2015.

Prelims perspective

Model questions

Air independent propulsion system is a technology that enables

    a. reduce air pollution

    b. aircrafts to stay in air for longer time period

    c. submarines increase their stealth capacity

    d. a technology developed by ISRO for rocket launching

Sources: The Hindu The Hindu The Hindu

India climbs to 60th most innovative nation globally, China at 22nd: Report

India moved into the top half of the Global Innovation Index (GII) in 2017 by climbing six spots to 60 in a survey of innovative capacity among 127 countries.

Mains : GS 3 Technology, Economic Development, Bio diversity, Environment, Security and Disaster Management.

India moved into the top half of the Global Innovation Index (GII) in 2017 by climbing six spots to 60 in a survey of innovative capacity among 127 countries.
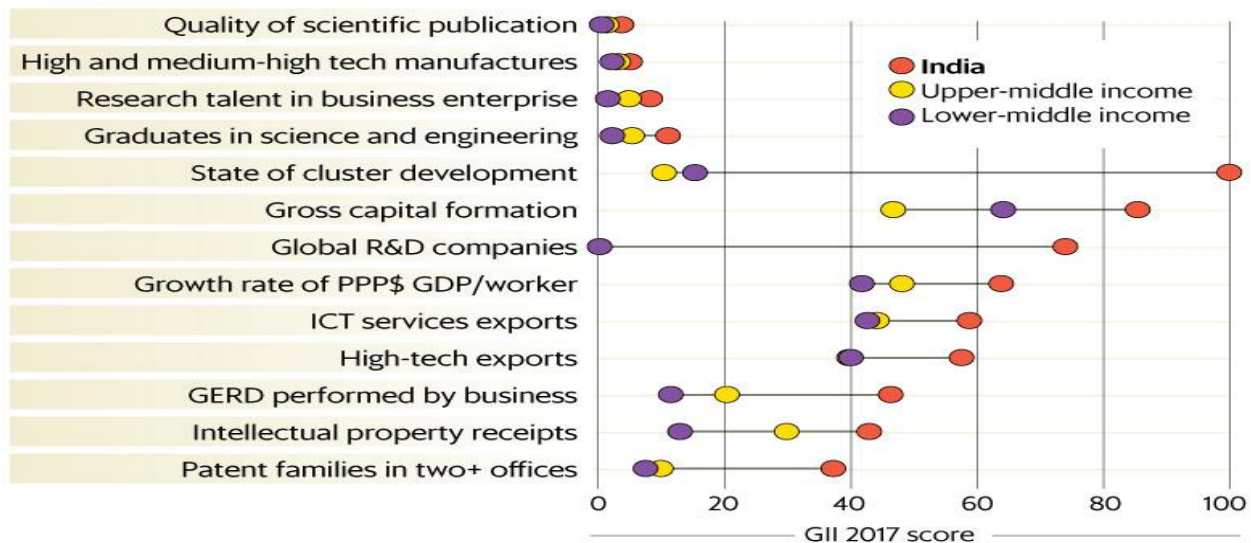
India moves up in global innovation rankings

India has been ranked 60th worldwide in the latest Global Innovation Index 2017 by INSEAD, Cornell University, and the World Intellectual Property Organization. The top five in the list are Switzerland, Sweden, the Netherlands, the US and the UK while the Asia rankings are led by Singapore, South Korea and Japan. India, which moved up from 66 last year, has improved its performance in most areas, including infrastructure, business sophistication, knowledge and technology outputs and creative outputs. Each year, the index ranks the innovation performance of 130 countries worldwide.

Global rankings

2016	2017		Country
1	1	◆	Switzerland
2	2	◆	Sweden
9	3	▲	Netherlands
4	4	◆	US
3	5	▼	UK
66	60	▲	India

India ahead of average lower-middle-and upper-middle-income economies

- India
- Upper-middle income
- Lower-middle income

Quality of scientific publication
High and medium-high tech manufactures
Research talent in business enterprise
Graduates in science and engineering
State of cluster development
Gross capital formation
Global R&D companies
Growth rate of PPP$ GDP/worker
ICT services exports
High-tech exports
GERD performed by business
Intellectual property receipts
Patent families in two+ offices

GII 2017 score

GERD: Gross domestic expenditure on R&D   Source: The Global Innovation Index 2017

World Intellectual Property Organization (WIPO)
- The World Intellectual Property Organization (WIPO) is one of the 17 specialized agencies of the United Nations.
- WIPO was created in 1967 "to encourage creative activity, to promote the protection of intellectual property throughout the world"
- WIPO currently has 189 member states administers 26 international treaties, and is headquartered in Geneva, Switzerland.

Prelims perspective

Model questions

WIPO sometimes seen in news is

    a. Organisation in US that assess IP protection worldwide

    b. An advisory body on intellectual property rights

    c. a specialized UN agency that deals with Intellectual property

    d. None of the above

Sources: Livemint pib

NASA finds 10 Earth-sized exoplanets - Kepler mission

NASA found 10 new rocky, Earth-sized planets that could potentially have liquid water and support life.

Mains : GS 3 Awareness in the fields of IT, Space,

Highlights

- The Kepler mission team released a survey of 219 potential exoplanets that had been detected by the space observatory launched in 2009 to scan the Milky Way galaxy.

Exoplanets are planets outside of our solar system

- Ten of the new discoveries were orbiting their suns at a distance similar to the Earth's orbit around the sun, the so-called habitable zone that could potentially have liquid water and sustain life.

- Kepler has already discovered 4,034 potential exoplanets, 2,335 of which have been confirmed by other telescopes as actual planets.

Kepler Mission

The Kepler Mission, is specifically designed to survey the Milky Way galaxy to discover Earth-size and smaller planets in or near the habitable zone and determine the fraction of the hundreds of billions of stars in our galaxy that might have such planets.

Prelims perspective

Model questions

Kepler mission seen in news is related to

    a. transportation technology

    b. nanotechnology

    c. space science

    d. Intellectual property rights

Sources: The Hindu NASA

BIO International Convention

An Indian delegation is participating in the Biotechnology Innovation Organization (BIO) BIO 2017 being held in the San Diego Convention Centre, San Diego

Mains : GS 3 Science and Technology- developments and their applications and effects in everyday life .

What is BIO International Convention ?

- The BIO International Convention is the largest global event for the biotechnology industry and attracts the biggest names in biotech.
- It offers key networking and partnering opportunities, and provides insights and inspiration on the major trends affecting the industry.
- The event features keynotes and sessions from key policymakers, scientists, CEOs, and celebrities.
- The Convention also features the BIO Business Forum (One-on-One Partnering), hundreds of sessions covering biotech trends, policy issues and technological innovations, and the world's largest biotechnology exhibition - the BIO Exhibition.
- The first BIO International Convention was held in 1993
- It is hosted by the Biotechnology Innovation Organization (BIO).
- BIO members are involved in the research and development of innovative healthcare, agricultural, industrial and environmental biotechnology products.
- BIO performs many services for members, but none of them are more visible than the BIO International Convention.

Prelims perspective

Model questions

With reference to 'BIO International Convention', consider the following statements:

1. The first BIO International Convention was held in India in 2016 on the theme 'biotechnology for healthcare'
2. BIO members are involved in the research and development of innovative healthcare, agricultural, industrial and environmental biotechnology products.

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

Sources: pib

Launch of National Biopharma Mission - Innovate in India (i3)

The first ever Industry-Academia mission to accelerate biopharmaceutical development in India is formally launched.

Mains   : GS 2 Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

Innovate in India

- **Objective :** It aspires to create an enabling ecosystem to promote entrepreneurship and indigenous manufacturing in the Biopharmaceutical sector.
- The program named Innovate in India (i3) will witness an investment of USD

250 million with USD 125 million as a loan from world Bank and is anticipated to be a game changer for the Indian Biopharmaceutical industry.

Why biopharmaceutical mission?

- Indian biopharmaceutical industry is still 10-15 years behind their counterparts in the developed countries and faces stiff competition from China, Korea and others.
- The lacuna primarily exists due to disconnected centers of excellence, less focus on translational research and staggered funding.
- i3 is committed fill in the gaps existing in biopharmaceutical research with a Mission to make India a hub for design and development of novel, affordable and effective biopharmaceutical products and solutions.
- The Mission is part of an attempt to push India's share in the global biopharmaceuticals market from the current 3 per cent to 5 per cent by 2022.

National biopharma mission

Objective : The aim of the Mission is to "Enable and nurture an ecosystem for preparing India's technological and product development capabilities in biopharmaceuticals to a level that will be globally competitive over the next decade, and transform the health standards of India's population through affordable product development"

- Biotechnology Industry Research Assistance Council (BIRAC), a public sector undertaking under the DBT, will be the implementing agency for the mission, which is also supported through a World Bank loan.
- It focuses on developing home grown vaccines to prevent dengue, human papilloma virus and pneumococcal infection.
- Apart from vaccines and biosimilars, the five-year mission will also support development of newer platform technologies for medical devices and diagnostics.
- This mission is not for new discovery, but for creating infrastructure to move important early leads, which are in different stages, through the pipeline, and come out with products.
- The Mission will provide a holistic and integrated approach to strengthen and support the entire product development value chain for accelerating the research leads to product development.
- The mission will follow a consortium-based approach, wherein academia and industry working in an identified area will be encouraged to work together. The government will handhold them through various regulatory processes so that product development can be hastened.

Prelims Perspective

Model Questions

With regard to National Biopharma mission which of the following statements is/are correct?

1. Innovate in India mission is a part of National Biopharma mission
2. The government and industry will be the only two participants in the mission
3. The project is supported by AIIB

Select the correct answer using the codes given below
   a. 1 only
   b. 2 and 3 only
   c. 1 and 2 only
   d. 1 and 3 only

Mains Perspective

Model Questions

Examine the major provisions of National Biopharma mission. How will it help in developing an indigenous biopharmaceutical industry?

Sources: pib The Hindu BusinessLine

Rise in crocodile nestings in Odisha elates ecologists

The wildlife wing of the State Forest Department has come across 80 crocodile nests in the crocodiles wild habitats in 2017 in Bhitarkanika, compared with 75 in 2016 and 70 in 2015.

Mains   :   GS 3 Conservation, environmental pollution and degradation, environmental impact assessment

Bhitarkanika is said to house 70% of India's estuarine or salt water crocodiles, conservation of which was started over four decades ago in 1975.

Conservation efforts
   ● Since 1977, salt water crocodile eggs have been collected and young crocodiles have been released in the creeks and the estuaries of Bhitarkanika. A decade ago, this practice was discontinued, allowing crocodiles to grow in their natural habitats.
   ● In 1974, the Ministry of Forests, in collaboration with UNDP, had started a crocodile hatchery project at Dangmal in the park which saw an increase in number of crocodiles.
   ● In 1975 when the Government of India and the United Nations Development Programme focussed on saving crocodiles in Bhitarkanika, there were hardly three or four nests sighted in the area and the population of salt water crocodiles was estimated to be 95, including 34 adults. Now, the numbers have grown to 1,682.

Bhitarkanika National Park and crocodiles
   ● The Bhitarkanika National Park is a place where the rivers Brahmani, Baitarni, Dhamra and Pathsala meet the Bay of Bengal.

- The mangrove wetland and a large number muddy creeks provide perfect conditions for estuarine crocodiles to nest. Moreover, the nesting sites of crocodiles are located at places where tidal waves cannot wash away the eggs.
- The national park is also home to the only white-coloured captive crocodile named Gori.
- Many albino crocodile species can be found in the Bhitarkanika's waters.
- The park also houses the world's largest salt water crocodile, measuring about 23 feet — this was recorded in 2006 in the Guinness World Records.
- Odisha has the distinction of having all three Indian species of crocodiles. "

About Bhitarkanika

- Bhitarkanika is a unique ecosystem, highly dynamic and at the same time fragile. The delta, the river mouth, the sea, mangrove forest, avian fauna, reptiles, amphibians and fauna and flora contribute to the park's biological diversity.
- The sanctuary is the second largest mangrove ecosystem in India. The national park was created in September 1998 from the core area of the Bhitarkanika Wildlife Sanctuary, which was created in 1975.
- The national park is surrounded by the Bhitarkanika Wildlife Sanctuary. Gahirmatha Beach and Marine Sanctuary lies to the east, and separates swamp region cover with canopy of mangroves from the Bay of Bengal.
- The national park presently figures in the listed of protected wetlands under the Ramsar Convention.

Prelims Perspective
Model Questions *[UPSC Prelims 2017]*
If you want to see gharials in their natural habitat, which one of the following is the best place to visit?
(a) Bhitarkanika Mangroves
(b) Chambal River
(c) Pulicat Lake
(d) Deepor Beel
Sources: The Hindu Wikipedia

Petya ransomware cyberattack: CERT-In issues advisory
The Indian Computer Emergency Response Team (CERT-In) on Wednesday issued an advisory about Petya or Petrwrap – the latest in the series of ransomware attacks affecting computer systems across the world. Meanwhile the cyber attack has hit operations at Mumbai port
Mains : GS 3 basics of cyber security.

Petya and preventive measures

After Wannacry, yet another ransomware application has affected computers worldwide

more than $9,262 from 40 payments had been collected in the Bitcoin wallet tied to the Petya ransomware attack, according to @petya_ payments twitter account.

- Ukraine seems to be the most impacted by ransomware. Other countries impacted include Russia, UK, US and India, among others.

Measures for protection*

- Make sure Microsoft Windows and all third party softwares are updated.
- It's crucial to apply the MS17-010 bulletin immediately
- Don't open attachments in unsolicited e-mails
- Never click on a URL contained in an unsolicited e-mail, even if the link seems benign.
- Maintain updated Antivirus software on all systems.
- Ensure the web browsers are secured enough with appropriate content controls.
- Individuals or organisations are not encouraged to pay the ransom, as this does not guarantee files will be released. Report such instances of fraud to CERT-In and Law Enforcement agencies.

- The current cyberattack is believed to be a variant of Petya ransomware that has been in existence since 2016. It infects PCs running on Windows operating system.

- As per preliminary findings by Kaspersky, the current attack is not a variant of Petya ransomware, but a new ransomware. They are calling it NotPetya.

- The current ransomware not only encrypts files, but also overwrites and encrypts the master boot record, making the system unusable till infection is removed.

- The ransomware waits for up to 60 minutes post infection to initiate a system reboot, post which a ransomware message is displayed.

- Petya, like the recent WannaCry ransomware that infected over 300,000 computers worldwide, uses the Eternal Blue exploit to propagate itself.

- Experts say the latest version of Petya is a much more "professional attempt" by cyber criminals compared to WannaCry whose damage was minimised due to "sloppy coding".

- Cybercriminals behind the attack demand $300 in bitcoins be paid to recover encrypted files

- As of Wednesday afternoon,

SOURCE: CERT-IN

Image : The Hindu

Prelims perspective

Model questions

'Petya' recently in news is a

a. encryption technology developed by google
b. malicious software
c. solar spacecraft developed by NASA
d. technology used to mine bitcoins

Mains Perspective

Model questions *[UPSC Mains 2013]*

Cyber warfare is considered by some defense analysts to be a larger threat than even Al Qaeda or terrorism. What do you understand by Cyber warfare? Outline the cyber threats which India is vulnerable to and bring out the state of the country's preparedness to deal with the same.

Sources: The Hindu The Hindu

Quick Facts

Neeru Chadha becomes 1st Indian woman as member of ITLOS
International law expert Neeru Chadha has won a election to the UN judicial body International Tribunal for the Law of the Sea (ITLOS) for a nine-year term from 2017 to 2026. The tribunal deals with disputes related to the law of the sea. Neeru Chanda became the first Indian woman to be appointed as a judge at the tribunal. The Hamburg-based ITLOS, established in 1996, is one of dispute settlement mechanisms under the UN Convention on the Law of the Sea (UNCLOS) that entered into force in 1994.

Israeli writer wins Man Booker International
Israeli author David Grossman has won the Man Booker International Prize, sharing the £50,000 award with translator Jessica Cohen. Mr. Grossman is the first Israeli writer to win the prize. The Man Booker International Prize was introduced in 2005 and up to last year was awarded in recognition of a body of work by a living author whose work was written or available in English. It is different from the Man Booker Prize for Fiction that is awarded every year for the best original novel, written in English and published in the U.K. From 2016, the international edition of the prize has been given for a single work of fiction that has been translated into English and published in Britain.

Cabinet approves Constitution of Indian Naval Material Management Service (INMMS) as an Organized Group 'A' Engineering Service
The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has approved constitution of an organized Group 'A' Engineering Service, namely Indian Naval Material Management Service (INMMS) and consequent changes in cadre structure of existing Group 'A' cadre of Naval Store Officers of the Indian Navy. Constitution of an Organized Group 'A' Service would attract the best talents available and bring in technically qualified Material Managers. It will improve the functional efficiency of Material Management of Naval Stores and ensure operational readiness of the Navy at all times.

Kasturirangan to head education committee
Eminent scientist, former Chief of ISRO and Padma Vibhushan Dr. K. Kasturirangan has been appointed Chairman of the committee tasked with preparing the final draft of the National Education Policy. The committee has eight members, apart from the chairperson.