



INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

- I A S S E L F S T U D Y G U I D E -

DAILY QUIZ

APRIL 2018

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I. ECONOMY

1. The “reverse-charge mechanism” under the GST regime refers to a mechanism under which
- The buyer will have to pay the penalty if an e-way bill is not generated by the transporter
 - Entities not opting for the GST Composition Scheme will have to compensate the resulting shortfall in revenue for the government
 - Large businesses would need to pay tax on behalf of unregistered small suppliers
 - None of the above

Solution: c.

What is Reverse Charge?

- Normally, the supplier of goods or services pays the tax on supply. In the case of Reverse Charge, the receiver becomes liable to pay the tax, i.e., the chargeability gets reversed.

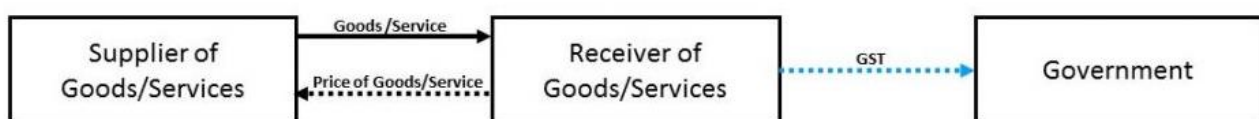
When is Reverse Charge Applicable?

- Supply from an Unregistered dealer to a Registered dealer
- Services through an e-commerce operator
- Supply of certain goods and services specified by CBEC

NORMAL GST PAYMENT PROCESS



GST PAYMENT IN CASE OF REVERSE CHARGE



<http://www.thehindu.com/opinion/editorial/back-on-track/article23427693.ece;>

<https://cleartax.in/s/reverse-charge-gst;>

2. Which of the following statements about the ‘New Millennium Indian Technology Leadership Initiative’ of the Council of Scientific and Industrial Research is/are correct?
- Such projects are selected for which the technology as well as market certainty are low
 - Projects are funded based on requests/applications received from institutions, academia and the private sector

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: a.

- Instead of funding a project based on requests/applications, the programme identifies the areas for development based on national consultation and invites best partners from institutions, academia and private sector to play a role in the development;
- Almost all projects are built in a public-private partnership mode;
- The programme provides for continuous mapping of the IP scenario for each project and in licensing of IP;
- the programme also provides for foreclosure of the non-performing or non-achievable project components;
- An innovative feature of the programme is that it provides financial support to all players in the project;
- The constant endeavour of the programme was to position the projects in the upper right most quadrant where the technology and markets are less known. Consequently, the risks and rewards associated with the projects are very high. Thus the strategy adopted for NMITLI was to obtain an inverse risk-investment profile, i.e. low investment – high risk technology areas (with global leadership potential) with investments increasing as developments take place and the projects move up on the innovation curve with reduction in risks.

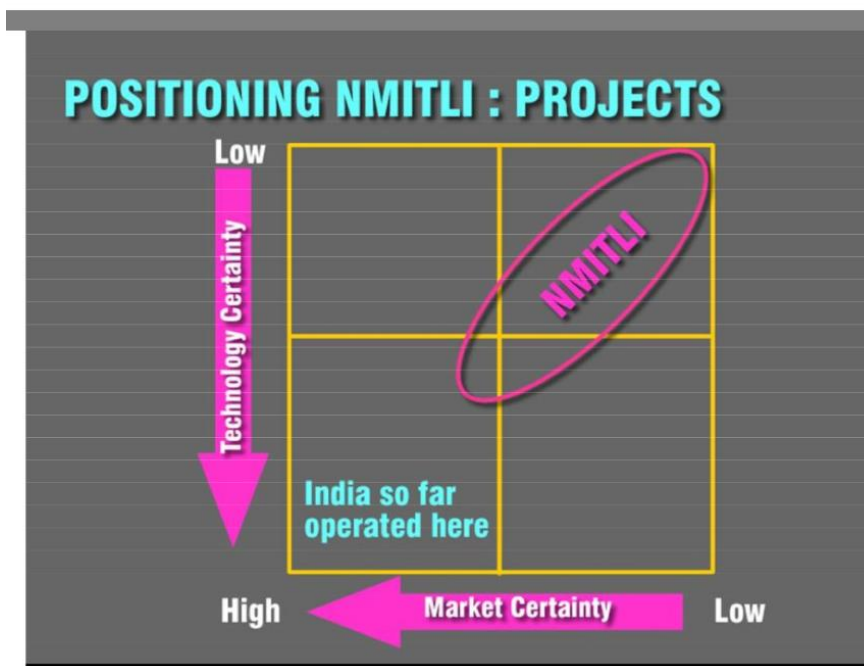


Fig. 1: Positioning of NMITLI Projects

About the NMITLI: <http://www.csir.res.in/sites/default/files/NMITLI%20Information%20in%20brief.pdf>;

Improvisation: <http://www.thehindu.com/business/a-third-of-firms-default-on-easy-csir-loans/article23437308.ece>

3. The 'World Economic Situation and Prospects' report, the latest edition of which was released recently, is prepared by the
- World Economic Forum
 - International Monetary Fund
 - Organisation for Economic Development and Cooperation
 - United Nations

Solution: d.

The **WESP report** is a joint product of the United Nations Department of Economic and Social Affairs (UN/DESA), the United Nations Conference on Trade and Development (UNCTAD) and the five United Nations regional commissions [Economic Commission for Africa (ECA), Economic Commission for Europe (ECE), Economic Commission for Latin America and the Caribbean (ECLAC), Economic and Social Commission for Asia and the Pacific (ESCAP) and Economic and Social Commission for Western Asia (ESCWA)].

[https://www.un.org/development/desa/dpad/document_gem/global-economic-monitoring-unit/world-economic-situation-and-prospects-wesp-report/;](https://www.un.org/development/desa/dpad/document_gem/global-economic-monitoring-unit/world-economic-situation-and-prospects-wesp-report/)

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178489;>

4. Consider the following statements:

- The International Standard Classification of Occupations (ISCO) was developed by the International Bank for Reconstruction and Development
- India's National Classification of Occupations (2015) is aligned with the ISCO

Which of the statements given above is/are correct ?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Solution: b.

Statement 2 is correct.

- The **International Standard Classification of Occupations (ISCO)** is one of the main international classifications for which **ILO** is responsible. It belongs to the international family of economic and social classifications (this is comprised of reference classifications that have been registered into the United Nations Inventory of Classifications, reviewed and approved as guidelines by the United Nations Statistical Commission or other competent intergovernmental boards.)
- ISCO is a tool for organising jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. The first version of ISCO was adopted in 1957 (ISCO-58) by the Ninth International Conference of Labour Statisticians. The current version is known as ISCO-08 (updated last in 2007).

[http://www.ilo.org/public/english/bureau/stat/isco/;](http://www.ilo.org/public/english/bureau/stat/isco/)

<http://www.thehindu.com/todays-paper/tp-opinion/skill-india-urgently-needs-reforms/article23448686.ece;>

5. Consider the following statements:

1. The concept of “Domestic Systemically Important Bank (D-SIB)” emerged after the global financial crisis
2. No private bank can be designated as a D-SIB
3. The Ministry of Finance is responsible for identifying a bank to be a D-SIB

Which of the statements given above is/are correct ?

- a) 1 only
- b) 1 and 2 only
- c) 3 only
- d) 1 and 3 only

Solution: a.

During the recent global financial crisis, it was observed that problems faced by certain large and highly interconnected financial institutions hampered the orderly functioning of the financial system, which in turn, negatively impacted the real economy. Government intervention was considered necessary in many jurisdictions to ensure financial stability. Cost of public sector intervention and consequential increase in moral hazard require that future regulatory policies should aim at reducing the probability of failure of **Systemically Important Banks (SIBs)** and the impact of the failure of these banks.

- The RBI in 2014 came out with a Framework for dealing with Domestic Systemically Important Banks, which is based on the Basel Committee on Banking Supervision framework from 2011.
- The indicators which would be used for assessment are: size, interconnectedness, substitutability and complexity. Based on the sample of banks chosen for computation of their systemic importance, a relative composite systemic importance score of the banks will be computed. RBI will determine a cut-off score beyond which banks will be considered as D-SIBs.
- In addition to the SBI and ICICI Bank, the RBI has also identified HDFC Bank as a D-SIB.
- These banks will be required to have additional Common Equity Tier 1 capital requirement ranging from 0.20% to 0.80% of risk weighted assets.
- D-SIBs will also be subjected to differentiated supervisory requirements and higher intensity of supervision based on the risks they pose to the financial system.
- In case of distress, the government is expected to support these banks.

https://m.rbi.org.in/Scripts/BS_PressReleaseDisplay.aspx?prid=31680

Improvisation: <http://www.thehindu.com/business/Industry/allegations-against-icici-bank-pose-reputational-risks-fitch/article23481684.ece>;

6. Why was the hormone ‘Oxytocin’ most recently in the news ?

- a) It was discovered that it stimulates the mammary gland and induces milk production in farm animals
- b) Production of synthetic oxytocin in India has been banned due to large scale non-adherence to manufacturing standards
- c) The oxytocin drug can now be sold only on the prescription of a registered medical practitioner
- d) It's import has been banned

Solution: d.

- The Union government last Friday **banned imports of the hormone oxytocin** to stop its misuse in the **livestock industry**, where activists say it causes hormonal imbalances and **shortens the lives of milch animals**.

<http://www.thehindu.com/news/national/govt-bans-imports-of-hormone-oxytocin/article23459609.ece>;

7. The 'Copenhagen Consensus Centre' was conceived to address which among the following issues confronting international development ?
- Populism
 - Inadequate capabilities and human capital
 - Limited budgets and time constraints
 - Job-hopping millennials

Solution: c.

"The **Copenhagen Consensus Center** focuses on cost-effective solutions to the world's biggest challenges. We create a framework to prioritize solutions, with the goal of achieving the most good for people and the planet. Our analyses take into account not just the economic, but also health, social and environmental benefits.. It was conceived to address a fundamental, but overlooked topic in international development: In a world with **limited budgets** and attention spans, we need to find effective ways to do the most good for the most people."

<http://www.thehindu.com/opinion/op-ed/building-indias-talent-base/article23505879.ece>;

<http://www.copenhagenconsensus.com/our-story>;

8. The recent budget included provisions for the development of two defence industrial production corridors. Where are they proposed to come up ?
- Kochi and Paradip
 - Pokhran and Marathwada
 - Bundelkhand and Chennai-Bangalore
 - Delhi-Mumbai and Bokaro Steel City

Solution: c.

The government in February announced the two corridors – one will come up between **Chennai** and **Bangalore** (which would also pass through Coimbatore and several other industrial clusters) and the other in **Bundelkhand region** (Uttar Pradesh's defence corridor will be extended to Agra, Allahabad, Lucknow, Kanpur, Jhansi and Chitrakoot).

Tol; Improvisation: TH;

9. Consider the following statements:

1. The Financial Action Task Force on Money Laundering (FATF) was established by the G20 summit that was held in 2009
2. 'Mutual Evaluations' by the FATF are peer reviews, where members from different countries assess another country's level of implementation of FATF recommendations
3. Presently, money laundering in India is not a standalone offence

Which of the statements given above is/are correct ?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 3 only

Solution: b.

- In response to mounting concern over money laundering, the **Financial Action Task Force** on Money Laundering (FATF) was established by the **G-7 Summit** that was held in **Paris** in **1989**.
- Among the key recommendations of the FATF, an international body that sets global standards for fighting illicit finance, is that money laundering be made a standalone offence.
- Despite several amendments, the **Prevention of Money Laundering Act (PMLA)** remains a predicate-offence-oriented law. This means a case under the Act depends on the fate of cases pursued by primary agencies such as the CBI, the Income Tax Department or the police. The latest instances are the verdicts in the 2G spectrum and Aircel-Maxis cases by the CBI courts, in which the money laundering angle probed by the Enforcement Directorate fell apart.
- After analysing the PMLA provisions in its first mutual evaluation of India, the FATF recommended that “legal measures are taken to allow for confiscation of the money laundered as subject of the ML [money laundering] offence and which is not contingent on conviction for the predicate offence [stand-alone ML offence].”
- **Mutual evaluations** are strict and a country is only deemed compliant if it can prove this to the other members. In other words, the onus is on the assessed country to demonstrate that it has an effective framework to protect the financial system from abuse. Mutual Evaluations have two basic components, effectiveness (this is the focus of the on-site visit to the assessed country) and technical compliance (the assessed country must provide information on the laws, regulations and any other legal instruments it has in place to combat money laundering and the financing of terrorism and proliferation).

<http://www.thehindu.com/todays-paper/tp-national/pmla-will-need-more-changes/article23551886.ece>;

10. After Petroleum Oil and Lubricants, which among the following items accounted for the largest share of imports in the financial year 2016-17 ?

- a) Electronic goods
- b) Fertilisers
- c) Gold
- d) Coal

Solution: a.

- POL: 22.6%
- Gold: 7.2%
- Fertilisers: 1.3%
- Electronic goods: 10.9%

Table 6, Page 90 Economic Survey 2017-18 Volume 2;

Improvisation: <http://www.thehindu.com/opinion/op-ed/is-the-indian-economy-really-that-strong/article23590030.ece>

11. “Currency chests”, recently in the news, is/are

- The cash portion that a bank itself holds to fulfil its SLR (Statutory Liquidity Ratio) requirements
- A fraction of Net Demand and Time Liabilities that banks maintain as cash deposits with offices of the RBI across all state capitals
- Select branches of banks in which notes and coins are stocked on behalf of the Reserve Bank of India
- None of the above

Solution: c.

Currency chests are select branches of scheduled banks, which are authorised by the RBI to facilitate distribution of notes and coins. In these branches, notes and coins are stocked on behalf of the RBI. These currency chests are expected to distribute notes and coins to other bank branches in their area of operation. There are around 4,000 currency chests across the country. Public Sector Banks run most of these currency chests.

BS; Improvisation: [TH](#); [TH2](#);

12. The “Global Findex” database is published once every three years by

- G20 Global Partnership for Financial Inclusion
- World Bank Group
- Organisation for Economic Cooperation and Development
- European Bank for Reconstruction and Development

Solution: b.

The “**Global Findex**” database is the world’s most comprehensive data set on how adults save, borrow, make payments, and manage risk. Launched with funding from the Bill & Melinda Gates Foundation, the database has been published (**by the World Bank Group**) every three years since 2011. The **2017 edition** includes updated indicators on access to and use of formal and informal financial services. And it **adds new data** on the **use of financial technology (fintech)**, including the use of mobile phones and the internet to conduct financial transactions.

<https://globalfindex.worldbank.org>;

DATA POINT

Woes of the unbanked

The number of adults who entered the banking system in India doubled in 2017 compared to 2011. Yet, close to 20% of adults (19 crore people) didn’t have bank accounts as of 2017. More than half of them cited 'lack of funds' as the primary reason

Top reasons for not holding a bank account	% of respondents*
Insufficient funds	53.78%
Someone in the family has an account	51.58%
Financial services are too expensive	26.83%
Financial institutions are too far away	23.39%
Lack of necessary documentation	21.74%
Lack of trust in financial institutions	20.24%
Religious reasons	5.85%
No need for financial services	0.79%

* Respondents could select more than one reason

SOURCE: WORLD BANK GLOBAL FINDEX

13. The “Global Findex” database concerns

- a) Labour markets
- b) International development finance
- c) How adults save, borrow, make payments, and manage risk
- d) Innovation and startups

Solution: c.

Refer explanation to previous question.

14. Consider the following statements about the Fugitive Economic Offenders Ordinance, 2018:

- 1. It incorporates several provisions found in the UN Model Law on Cross-Border Insolvency
- 2. A person can be declared as a ‘fugitive economic offender’ only by a committee consisting of members the same as that of the Financial Stability and Development Council

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

Solution: d.

Justification for Statement 1: “...though government agencies have attached the diamond merchant duo’s assets in India, an American court has disallowed the sale of their assets in other jurisdictions while allowing their U.S.-based entity to offload its assets. The reason: India is yet to pass a model law mooted by the UN for cross-border insolvency cases. It is not clear whether this ordinance can tide over this major handicap..”

Justification for Statement 2: The Ordinance makes provisions for a Court (‘Special Court’ under the Prevention of Money-laundering Act, 2002) to declare a person as a Fugitive Economic Offender.

Read more about the other provisions of the ordinance here: [PIB](#); Improvisation: [TH](#);

II. ECOLOGY & ENVIRONMENT

1. Consider the following statements:

The General Bathymetric Chart of the Oceans (GEBCO)

1. Works under the auspices of the International Maritime Organisation
2. Is organising the Ocean Discovery XPRIZE, a global competition challenging teams to advance deep-sea technologies for ocean floor exploration

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

Solution: d.

- GEBCO's aim is to provide the most authoritative publicly-available bathymetry of the world's oceans. It is a non-profit organisation that operates under the joint auspices of the International Hydrographic Organization (IHO) and the Intergovernmental Oceanographic Commission (IOC) (of UNESCO). GEBCO has its origins at the beginning of the 20th century.
- Gebco and the Nippon Foundation announced in 2017 the Seabed 2030, a project that aims to map the entire sea floor by the year 2030 using data gathered from vessels around the world.

Regarding statement 2: A GEBCO-Nippon Foundation team is participating in the Shell Ocean Discovery XPRIZE, a global competition challenging teams to advance deep-sea technologies for ocean floor exploration.

Source/Improvisation: <http://www.bbc.com/future/story/20180404-the-quest-to-map-the-mysteries-of-the-ocean-floor>;

About GEBCO: https://www.gebco.net/about_us/overview/;

2. Consider the following statements:

1. The International Hydrographic Organisation is headquartered in Mauritius
2. The Intergovernmental Oceanographic Commission is a body with functional autonomy within UNESCO

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

Solution: b.

The International Hydrographic Organization is an intergovernmental consultative and technical organization that was established in 1921 to support safety of navigation and the protection of the marine environment.

- Its headquarters (the IHB) is permanently established in Monaco.

- India is a member.

The Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), established in 1960 as a body with functional autonomy within UNESCO, is the only competent organization for marine science within the UN system.

https://www.iho.int/srv1/index.php?option=com_content&view=article&id=298&Itemid=297&lang=en;

<http://www.ioc-unesco.org;>

Improvisation (Solution, Q1): "GEBCO is a non-profit organisation that operates under the joint auspices of the International Hydrographic Organization (IHO) and the Intergovernmental Oceanographic Commission (IOC) (of UNESCO)."

3. Consider the following statements about the '3R Initiative', recently in the news:

1. It was established at India's proposal as a platform for broad cooperation on waste management in Asia-Pacific
2. The UN Centre for Regional Development promotes activities in 3R, especially in the developing countries in Asia-Pacific
3. The inaugural Regional 3R forum in Asia was recently hosted by India

Which of the statements given above is/are correct ?

- a) 1 and 3 only
- b) 2 only
- c) 1, 2 and 3 only
- d) None of the above

Solution: b.

- The **Eighth Regional 3R Forum** in Asia and the Pacific is all set to commence in Indore from 9 to 12 April 2018 with an overall theme of "Achieving Clean Water, Clean Land and Clean Air through 3R and Resource Efficiency – A 21st Century Vision for Asia-Pacific Communities". It is being hosted by the Ministry of Housing and Urban Affairs, Government of India, and co-organized by the Ministry of the Environment, Government of Japan, and the UNCRD.
- The **3R (reduce, reuse, recycle)** Initiative was launched at the Ministerial Conference on the 3R Initiative in Tokyo, Japan, in 2005, with an aim to shift the global consumption and production patterns towards building a sound-material-cycle society.
- This was following the **Sea Island Summit** where **G8 countries** agreed to establish the 3R Initiative in 2005, recognising the importance of reducing barriers to the international flow of goods and materials for recycling and remanufacturing, developing capacity for 3Rs in developing countries, and encouraging multi-stakeholder collaboration.
- **UNCRD** is collaborating with the Ministry of the Environment of the Government of Japan and other partners to further promote activities in 3R, especially in the developing countries in Asia-Pacific.
- In 2009, the Regional 3R Forum in Asia was established at Japan's proposal as a platform for broad cooperation on promotion of the 3Rs – reduce, reuse and recycle – in Asia.

<http://www.env.go.jp/recycle/3r/en/index.html>; <http://www.uncrd.or.jp/index.php?menu=388>;

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178513>;

4. Apart from preparing People's Biodiversity Registers (PBRs), the other responsibilities of the Biodiversity Management Committees (BMCs) set up under the Biological Diversity Act (2002) include:
1. Advising State Governments on matters relating to the conservation of biodiversity and equitable sharing of the benefits arising out of the utilisation of biological resources
 2. Promoting conservation of land races, domesticated stocks and breeds of animals and microorganisms

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: b.

- The **Biological Diversity Act (2002)** mandates implementation of the provisions of the Act through decentralized system with the **National Biodiversity Authority (NBA)** focusing on advising the Central Government on matters relating to the conservation of biodiversity, sustainable use of its components and equitable sharing of benefits arising out of the utilisation of biological resources (the same function at the state level is the responsibility of State Biodiversity Boards or SBBs); and advising the State Governments in the selection of areas of biodiversity importance to be notified as heritage sites and measures for their management.
- The SBBs also regulate, by granting of approvals or otherwise upon requests for commercial utilization or bio-survey and bio-utilization of any biological resource by the Indians.
- The local level Biodiversity Management Committees (BMCs) are responsible for promoting conservation, sustainable use and documentation of biological diversity including preservation of habitats, conservation of land races, folk varieties and cultivars, domesticated stocks and breeds of animals and microorganisms and chronicling of knowledge relating to biological diversity.

<http://nbaindia.org/content/22/2/1/aboutnba.html>;

<http://www.thehindu.com/opinion/op-ed/a-register-by-the-people/article23495949.ece>;

5. Consider the following statements:

1. Exploitation of Coal Bed Methane (CBM) is the administrative responsibility of the Ministry of Coal
2. The vast majority of the best prospective areas for CBM development are in Western India

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

Solution: d.

- **Coalbed Methane (CBM)**, an unconventional source of natural gas is now considered as an alternative source for augmenting India's energy resource. India has the fifth largest proven coal reserves in the world and thus holds significant prospects for exploration and exploitation of CBM.
- In order to harness CBM potential in the country, the Government of India formulated **CBM policy in 1997** wherein CBM being Natural Gas is explored and exploited under the provisions of **OIL Fields (Regulation & Development) Act 1948 (ORD Act 1948)** and **Petroleum & Natural Gas Rules 1959 (P&NG Rules 1959)** administered by Ministry of Petroleum & Natural Gas.
- The **Gondwana sediments** of eastern India host the bulk of India's coal reserves and all the current CBM producing blocks. The vast majority of the best prospective areas for CBM development are in eastern India, situated in **Damodar Koel valley** and **Son valley**.

Table 2.4: Coal Bed Methane Resources in India

Sl. No.	STATE	Estimated CBM Resources (BCM)
1	JHARKHAND	722.08
2	RAJASTHAN	359.62
3	GUJARAT	351.13
4	ORISSA	243.52
5	CHATTISGARH	240.69
6	MADHYA PRADESH	218.04
7	WEST BENGAL	218.04
8	TAMILNADU	104.77
9	ANDHRA PRADESH	99.11
10	MAHARASHTRA	33.98
11	NORTH EAST	8.50
Total CBM Resources		2599.48

<http://www.dghindia.org/index.php/page?pagelId=38>; <http://pib.nic.in/newsite/PrintRelease.aspx?relid=178584>;

6. The 'EU-Atlas' programme, receiving funding from the European Union's Horizon 2020 Research and Innovation Programme, is related to
- Deep-sea ecosystems
 - Light sail spacecrafts
 - Predicting volcanic eruptions
 - Arctic oil drilling

Solution: a.

A significant **shift in the system of ocean currents** that helps keep parts of Europe warm could send temperatures in the UK lower, scientists have found.

- They say the Atlantic Ocean circulation system is weaker now than it has been for more than 1,000 years – and has changed significantly in the past 150. The study, in the journal Nature, says it may be a response to increased melting ice and is likely to continue.
- Researchers say that could have an impact on Atlantic ecosystems. They say changes to the conveyor-belt-like system – also known as the Atlantic Meridional Overturning Circulation (Amoc) – could cool the North Atlantic and north-west Europe and transform some deep-ocean ecosystems.
- Scientists believe the pattern is a response to fresh water from melting ice sheets being added to surface ocean water, meaning those surface waters “can’t get very dense and sink”.

About the Atlas programme: Large-scale ocean observation is needed to improve our understanding of how deep ocean ecosystems function, their roles as reservoirs of biodiversity and genetic resources, and their health under future scenarios of climate change and human use. The **ATLAS project** is striving to improve our understanding of complex deep-sea ecosystems (specifically, of the Atlantic Ocean) and their associated species, including those that are new to science. Researchers are looking to predict future changes to these ecosystems and species and their vulnerabilities in the face of climate change.

<https://www.eu-atlas.org>; Improvisation: <http://www.bbc.com/news/science-environment-43713719>;

7. ‘Seabed 2030’, recently in the news, is

- An initiative to map the world’s ocean floor
- A consortium of governmental scientific institutions aiming to accelerate technological innovation in deep-sea mining
- NASA’s submersible autonomous vehicle to explore Titan’s (a moon of Saturn) seas
- An cleanup exercise to rid all oceans of microplastics pollution by 2030

Solution: a.

Gebco and the Nippon Foundation announced in 2017 the Seabed 2030, a project that aims to map the entire sea floor by the year 2030 using data gathered from vessels around the world. (Refer **1st Question** in this section)

8. ‘MARPOL’ and ‘OILPOL’ conventions are related to

- Technology transfer of advanced defence technologies
- Prevention of animal cruelty
- Conservation and prevention of pollution of groundwater resources
- None of the above

Solution: d.

- This is relevant due to the recently agreed global shipping climate deal.
- **IMO Maritime Environment Division:** IMO’s original mandate was principally concerned with maritime safety. However, as the custodian of the 1954 International Convention for the prevention of pollution of the sea by oil (**OILPOL Convention**), the Organization, soon after it began functioning in 1959, assumed responsibility for pollution issues and subsequently has, over many years, adopted a wide range of measures to prevent and control pollution caused by ships and to mitigate the effects of any damage that may occur as a result of maritime operations and accidents.

- Of the 51 treaty instruments for the regulation of international shipping IMO has adopted so far, 21 are directly environment-related.
- The work of the Marine Environment Division is, in the main, directed by the Marine Environment Protection Committee, the MEPC in short, which is IMO's senior technical body on marine pollution related matters. The original focus of its work was the prevention of marine pollution by oil, resulting in the adoption of the first ever comprehensive antipollution convention, the International Convention for the Prevention of Pollution from Ships (MARPOL) in 1973.
- Many developing countries cannot yet give full and complete effect to these instruments, for various reasons. IMO has established an Integrated Technical Co-operation Programme (ITCP), with the sole purpose of assisting countries in building up their human and institutional capacities for uniform and effective compliance with the Organization's regulatory framework.

Improvisation: <http://www.bbc.com/news/science-environment-43759923>;

9. The global shipping industry has for the first time agreed to cut its emissions of greenhouse gases. In this context, which among the following statements is/are true ?

1. The agreement was arrived at under the aegis of a specialised agency of the United Nations
2. Under the deal, emissions will be reduced by at least 80% by 2050 compared to 2008 levels

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: a.

IMO – the International Maritime Organization – is the United Nations specialized agency with responsibility for the safety and security of shipping and the prevention of marine pollution by ships.

At the 72nd session of the IMO's **Marine Environment Protection Committee (MEPC72) Shipping and Climate Summit**, representatives from around the world adopted an initial strategy on the reduction of greenhouse gas emissions from ships, setting out a vision to reduce GHG emissions from international shipping and phase them out, as soon as possible in this century. The initial strategy

- envisages for the first time a reduction in total GHG emissions from international shipping which, it says, should peak as soon as possible and to reduce the total annual GHG emissions by **at least 50% by 2050 compared to 2008**, while, at the same time, pursuing efforts towards phasing them out entirely.
- includes a specific reference to “a pathway of CO₂ emissions reduction consistent with the Paris Agreement temperature goals”.
- also identifies barriers and supportive measures including capacity building, technical cooperation and research and development (R&D).
- represents a framework for Member States, setting out the future vision for international shipping, the levels of ambition to reduce GHG emissions and guiding principles; and includes candidate short-, mid- and long-term further measures with possible timelines and their impacts on States.

<http://www.bbc.com/news/science-environment-43759923>;

<http://www.imo.org/en/MediaCentre/PressBriefings/Pages/06GHGinitialstrategy.aspx>;

10. The 'EDGE of Existence' programme, sometimes in the news, is related to
- Commercial hypersonic flight
 - Species that have few close relatives on the tree of life
 - Medical and food assistance to civilian victims of armed conflicts
 - Planetary exploration

Solution: b.

In the news: Boasting a green, punk hairdo and the unusual ability to breathe through its backside, an Australian turtle has become famous overnight — but not only for its eccentricity.. Unfortunately, just as many people are discovering the Mary River Turtle's tantalising traits, it has become the latest creature to join the "EDGE of Existence" list of endangered species compiled by the Zoological Society of London (ZSL).. "This turtle is able to spend so much time underwater — up to three days — without coming up for air due to its strange ability to breathe through its bum.. They have specialised organs in their cloaca (scientific term for 'bum') which process oxygen from the surrounding water."



About EDGE of Existence: Using a scientific framework to identify the world's most **Evolutionarily Distinct and Globally Endangered (EDGE) species**, the **EDGE of Existence programme** highlights and protects some of the most unique and most wonderful species on the planet.

EDGE species have few close relatives on the tree of life and are often extremely unusual in the way they look, live and behave, as well as in their genetic make-up. They represent a unique and irreplaceable part of the world's natural heritage, yet an alarming proportion are on the verge of extinction.

The **aim of the EDGE programme** is to put these species on the map and catalyse conservation action to secure their future.

11. Which one of the following species was recently named after the BBC's Blue Planet series – the first time that a species has been named after a television programme ?
- A shark
 - A tree frog
 - A rare tropical butterfly
 - A phytoplankton

Solution: d.

- A type of plankton described as part of "the beating heart" of the oceans has been named after the BBC's Blue Planet series. Sir David Attenborough narrates this critically acclaimed series that dives deep into the marine environment of Planet Earth.
- The tiny plant-like organism is regarded as a key element of the marine ecosystem.
- A single-celled algae, the plankton is found throughout the world's oceans.
- It will now be officially known as *Syracosphaera azureaplaneta*, the latter translating from Latin as 'blue planet'.

<http://www.bbc.com/news/science-environment-43796939>;

12. Consider the following statements:

1. They are responsible for about half of earth's oxygen
2. They are the only known organisms that always swim against the ocean current

Which of the statements given above about planktons is/are true ?

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

Solution: a.

- **Plankton**, marine and freshwater organisms that, because they are nonmotile or too small or weak to swim against the current, exist in a drifting state. The term plankton is a collective name for all such organisms—including certain algae, bacteria, protozoans, crustaceans, mollusks, and coelenterates, as well as representatives from almost every other phylum of animals.
- Plankton are responsible for 50% of earth's oxygen. They are an essential part of the food chain. And billions of billions of ancient plankton have given their bodies to form the crude oil that powers modern society.
- Plankton is the productive base of both marine and freshwater ecosystems, providing food for larger animals and indirectly for humans, whose fisheries depend upon plankton.

<http://www.bbc.com/earth/story/20150608-what-plankton-have-done-for-us>;

<https://www.britannica.com/science/plankton>;

Improvisation: <http://www.bbc.com/news/science-environment-43796939>;

13. The Organisation for the Prohibition of Chemical Weapons

1. Is administered by the UN Office for Disarmament Affairs
2. Monitors the chemical industry among member states to prevent new chemical weapons from re-emerging
3. Provides assistance and protection to state parties against chemical threats

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) 1, 2 and 3

Solution: b.

The UN recognises that the OPCW, by virtue of the Chemical Weapons Convention, shall function as an independent, autonomous international organisation in the working relationship with the UN.

The **mission of the OPCW** is to implement the provisions of the Chemical Weapons Convention (CWC). The Convention contains **four key provisions**:

- **destroying** all existing chemical weapons under international verification by the OPCW;

- **monitoring** chemical industry to prevent new weapons from re-emerging;
- providing assistance and **protection** to States Parties against chemical threats; and
- fostering international **cooperation** to strengthen implementation of the Convention and promote the peaceful use of chemistry.

The OPCW, established in 1997, has its headquarters at The Hague, Netherlands.

Israel has signed the agreement but is yet to ratify it. The countries that have **not** signed it are **Egypt, South Sudan and North Korea**.

<https://www.opcw.org/about-opcw/>

Source/Improvisation: <http://www.thehindu.com/todays-paper/tp-opinion/still-using-chemical-weapons/article23596986.ece;>

14. According to the US-based Health Effects Institute's State of Global Air 2018 report

1. India accounts for more than half of global deaths due to air pollution
2. 5 pollution levels have started stabilising in India
3. India has seen a steady decline in deaths per lakh between 1990 and 2016

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) None of the above

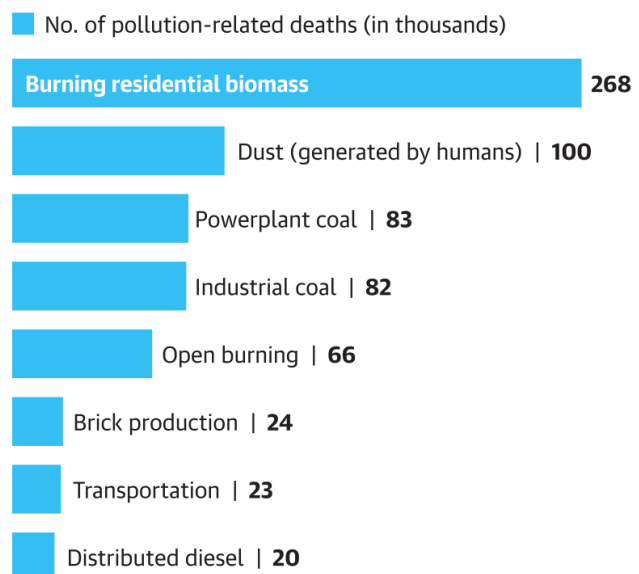
Solution: d.

- A US-study has estimated that India and China together account for more than half of global deaths due to air pollution.
- The US-based Health Effects Institute's State of Global Air study has also found that increasing exposure to air pollution combined with an ageing population has led to India rivalling China in health burden from bad air.
- The report states that China's PM2.5 pollution levels have started stabilising and people's exposure to particulate pollution has also started declining but it's on a steep rise in India.
- The death rate (deaths per lakh), however, is seeing a declining trend in both the countries. In 1990, China saw 146 air pollution-related deaths per lakh of its population. This decreased to 80 for 2016. India on the other hand saw a steady decline in death rate between 1990 and 2010, when it fell from 150 to 123. The rate, however, has marginally increased in six years between 2010 and 2016 — the year for which the latest data is available.

DATA POINT

In the haze

In India, close to six lakh deaths were attributable to PM2.5 pollution in 2015, according to the State of Global Air report 2018. Of them, 25% of the deaths were directly linked to 'burning residential biomass like wood and other organic matter'. A look at major sources of PM2.5 in India:



SOURCE: STATE OF GLOBAL AIR REPORT 2018

- The burden of non-communicable diseases among the ageing population is increasing in developing countries

<https://economictimes.indiatimes.com/news/environment/pollution/india-china-account-for-over-half-of-global-deaths-due-to-air-pollution-report/articleshow/63822904.cms>;

15. Going by the draft plan, the National Clean Air Programme

- Aims to reduce pollution in specific cities by 50% in 5 years
- Will be implemented only in cities
- Introduces a new institutional framework at the central and state levels for the purpose of this programme

Select the correct answer using the code given below:

- 1 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Solution: c.

While the draft **National Clean Air Programme (NCAP)** mentions 'emission reduction targets', nowhere does it actually quantify these pollution-reduction targets.

- The 20-point programme shifts the onus of fighting air pollution to the state governments, emphasises on collection of authentic data on pollution sources, introduces monitoring of rural air pollution and a new institutional framework at the central and state levels to monitor air quality and take preventive steps.
- The programme, India's first attempt at working out a coordinated system to curb air pollution, requires all the states to frame their own Clean Air Programmes. While the national programme lays down the time frame for measures such as setting up of additional centres to monitor air quality across 100 cities, it does not have any directives to the states on their action plan.
- The national programme emphasises on the need for

CLEARING THE AIR

AIM OF NATIONAL CLEAN AIR PROGRAMME

To meet prescribed annual average ambient air quality standards at all locations in the country

How it will work

<p>A NEW INSTITUTIONAL FRAMEWORK FINALISED</p> <p>Apex committee under environment minister</p> <p>Steering committee under secy (environment)</p> <p>CPCB TO STEER identification of alternative tech for ambient air quality monitoring</p>	<p>Monitoring committee under joint secretary</p> <table border="1"> <tr> <td style="vertical-align: top;"> <p>National project implementation unit at CPCB (5-6 scientific personnel)</p> </td> <td style="vertical-align: top;"> <p>State-level project monitoring units (3-4 scientific personnel)</p> </td> </tr> </table> <p>National project monitoring unit in environment min (25 scientific personnel)</p>	<p>National project implementation unit at CPCB (5-6 scientific personnel)</p>	<p>State-level project monitoring units (3-4 scientific personnel)</p>
<p>National project implementation unit at CPCB (5-6 scientific personnel)</p>	<p>State-level project monitoring units (3-4 scientific personnel)</p>		

50 stations in rural areas to monitor air quality

PM 2.5 to be monitored across the country

Air quality management plan would be proposed for **100 cities**

Guidelines to be worked out for indoor air pollution

Air Information Centre to be set up for data analysis, interpretation & policy updates

Source apportionment studies (to identify sources of pollution & contribution) to be commissioned in **94 cities**

Authority to be set up to manage 3-tier system for data collection, archiving & analytics

EXTENSIVE PLANTATION DRIVE

Increase in manual monitoring stations from **691** to **1,000**

authentic data collection and acknowledges uncharted territories such as rural pollution. “Air quality in rural areas remains a neglected issue. The common belief is that rural areas are free from air pollution. On the contrary, air quality in the rural areas all over the world and particularly in the developing countries may be more polluted than some of the urban areas,” says the plan

[TH](#); [ET](#); [PIB](#); [DTE](#);

16. A Seven-Star rating system was recently launched by the Ministry of Housing and Urban Affairs. This tool is specifically related to
- Scientific solid waste management
 - Provisioning of safe piped water
 - Making cities safe for pedestrians
 - Eradication of open defecation

Solution: a.

The **star-rating initiative**, developed under the **Swachh Bharat Mission-Urban** will rate cities on a 7-star rating system based on multiple cleanliness indicators for solid waste management, which will include, for instance, Door-to-door collection, source segregation, sweeping, scientific processing of waste, etc.

Cities can be rated as 1, 2, 3, 4, 5 and 7 star based on their compliance with the protocol conditions specified for each of the rating. Further city should be ODF(Open Defecation Free) before it could be given rating of 3 star or above. While cities may self-declare themselves as 1-star, 2-star or 4-star, MoHUA will carry out an additional verification through an independent third party to certify cities as 3-star, 5-star or 7-star. Cities will need to get re-certified themselves every year to retain their star-status.

The **Swachh Survekshan survey** run by the SBM Urban for the past three years has successfully built up a spirit of healthy competition among cities, vying with each other every year to improve their ranking as compared to other cities. On the other hand, the distinctive feature of Star Rating System will be that many cities can have higher stars as compared to only one city can be “Cleanest city” under Swachh Survekshan.

Improvisation: [PIB1](#); Launch of the star-rating system in January: [PIB2](#);

17. Earth Day Network, the organization that leads Earth Day worldwide, has chosen as the theme for 2018
- Water wonderful world
 - Trees for earth
 - Environmental and climate literacy
 - End plastic pollution

Solution: d.

Cities and nations have been looking at banning plastic straws and stirrers in hopes of addressing the world’s plastic pollution problem. This also remained the main theme of the 48th annual Earth Day organised on 22nd April.

[Earth Day](#); [TH](#);

18. Consider the following statements:

1. Ferns are flowerless plants that cannot retain water or deliver it to other parts of the plant body
2. The world's smallest land fern is found in the forests of Western Ghats in Gujarat

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

Solution: b.

Indian researchers have discovered the world's smallest land fern hiding in the Ahwa forests of the **Western Ghats in Gujarat's** Dang district.

- The fingernail-sized fern belongs to a group known as the adder's-tongue ferns, named after their resemblance to a snake's tongue.
- The new Malvi's adder's-tongue fern *Ophioglossum malviae* is just one centimetr-long.
- A look at the plant's minuscule spores under a powerful electron microscope revealed it had a unique thick outer layer which similar species lacked.
- **Ferns**, unlike moss, are **vascular plants**. The vascular system consists of xylem (wood), concerned mainly with the conduction of water and dissolved minerals, and phloem, which functions mainly in the conduction of foods, such as sugar.

Source/improvisation: [TH](#); [Moss versus Fern](#);

19. The 'Global Land Outlook' report is published by

- a) Food and Agriculture Organisation
- b) World Bank
- c) UN Convention to Combat Desertification
- d) UN Environment Programme

Solution: c.

- Bringing together a diverse group of international experts and partners, the GLO is a strategic communications platform and publication that addresses the future challenges and opportunities for the management and restoration of land resources in the context of sustainable development.
- The first edition of the UNCCD's GLO was published in 2017.

[UNCCD](#); Improvisation: [PIB](#);

20. 'Trends.Earth', a tool developed by Conservation International and funded by the Global Environment Facility, concerns which among the following issues ?

- a) Land degradation
- b) Species extinction
- c) Plastic pollution
- d) Methane emissions

Solution: a.

- **Trends.Earth** is a land degradation monitoring tool which was produced as part of the project "Enabling the use of global data sources to assess and monitor land degradation at multiple scales", funded by the [Global Environment Facility](#). Conservation International is the implementing agency of the aforementioned project.
- The **Land Degradation Monitoring Project** is a partnership of Conservation International, Lund University, and the National Aeronautics and Space Administration (NASA), and is funded by the Global Environment Facility (GEF).

[About Trends.Earth](#); Improvisation: [PIB](#);

21. Which among the following is **NOT** one of the Rio Conventions ?

- a) Convention on Biological Diversity
- b) UN Convention to Combat Desertification
- c) UN Convention concerning the Protection of Natural Heritage
- d) UN Framework Convention on Climate Change

Solution: c.

- The **1972 Convention** concerning the **Protection of the World Cultural and Natural Heritage** developed from the merging of two separate movements: the first focusing on the preservation of cultural sites, and the other dealing with the conservation of nature. This convention is also known as the World Heritage Convention. The Convention defines the kind of natural or cultural sites which can be considered for inscription on the World Heritage List.
- The **3 Rio Conventions** – on **Biodiversity, Climate Change and Desertification**—derive directly from the 1992 Earth Summit. Each instrument represents a way of contributing to the sustainable development goals of **Agenda 21** (Agenda 21 is a comprehensive plan of action to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment. It was adopted at the **United Nations Conference on Environment and Development (UNCED)** held in Rio de Janeiro, Brazil, 1992.)

Source/Improvisation: [PIB](#);

22. "By 2030, to combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world" is a target under

- a) SDG 1
- b) SDG 5
- c) SDG 10
- d) SDG 15

Solution: d.

[SDG 15 \(Life on Land\)](#): Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss. The statement in the question is one of the targets under this Goal.

Source/improvisation: [PIB](#);

23. Consider the following statements:

1. The Intergovernmental Panel on Climate Change in its latest assessment, citing risks such as conflicts with food security, recommends abandoning research in Carbon Capture and Storage technologies
2. Peridotite – the dominant rock found in India – naturally captures carbon dioxide

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

Solution: d.

- The carbon-capturing formations in Oman, consisting largely of a rock called peridotite, are in a slice of oceanic crust and the mantle layer below it that was thrust up on land by tectonic forces nearly 100 million years ago. Peridotite normally is miles below the earth's surface. When the rocks are exposed to air or water as they are in Oman, they are like a giant battery with a lot of chemical potential. They're far from equilibrium with the atmosphere and surface water. These rocks naturally react with carbon dioxide from the atmosphere and turn it into stone. Even pooled spring water that has bubbled up through the rocks reacts with CO₂ to produce an ice-like crust of carbonate that, if broken, re-forms within days.
- Scientists say that if this natural process, called carbon mineralisation, could be harnessed, accelerated and applied inexpensively on a huge scale — admittedly some very big “ifs” — it could help fight climate change. Rocks could remove some of the billions of tons of heat-trapping carbon dioxide that humans have pumped into the air since the beginning of the Industrial Age.
- Capturing and storing carbon dioxide, is drawing increased interest. The IPCC says that deploying such technology is essential to efforts to rein in global warming.

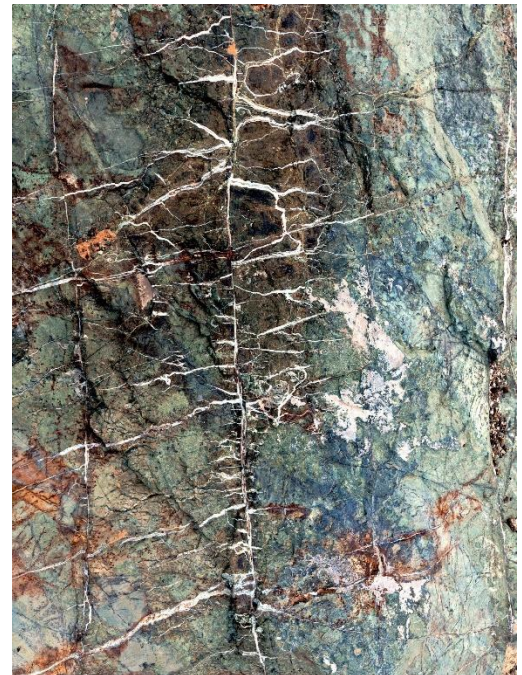


Image: Veins of white carbonate minerals run through slabs of dark rock.

[TH](#); [NYT](#);

III. GOVERNMENT SCHEMES AND PROGRAMMES

1. In what way does the Pradhan Mantri Rojgar Protsahan Yojana (PMRPY) incentivise employers for generation of new employment ?
- Fixed term employment will be introduced across all labour-intensive sectors enabling employers to hire and fire at will
 - The Government of India will pay the employers' Employee Pension Scheme share in respect of new employees
 - The Government will procure land on lease for a certain length of time on behalf of private sector enterprises/industries
 - The Government of India will pay MGNREGA-equivalent wage share of new employees' salaries in select sectors such as textiles and apparel

Solution: b.

PMRPY has been in operation since August, 2016.

- In this scheme, Government is paying the 8.33% contribution of Employers to the Employees' Pension Scheme (EPS) in respect of new employees (who have joined on or after 1st April 2016) having a new Universal Account Number (UAN), with salary up to Rs. 15,000/- per month.
- The scheme has a dual benefit i.e. on the one hand the employers are incentivized for increasing the employment base of workers in the establishments, and on the other hand a large number of workers will find jobs in such establishments.
- A direct benefit is that these workers will have access to social security benefits of the organized sector.

[http://pib.nic.in/PressReleaseDetail.aspx?PRID=1526913;](http://pib.nic.in/PressReleaseDetail.aspx?PRID=1526913)

<https://pmpy.gov.in;>

2. The Integrated Scheme on School Education will

- Subsume Sarva Shiksha Abhiyan, Rashtriya Madhyamik Shiksha Abhiyan and Rashtriya Uchchattar Shiksha Abhiyan
- Aim to support states in universalising access to school education from classes pre-nursery to twelfth grade across the country
- Mainly emphasise on improving the quality of school education

Select the correct answer using the code given below:

- 1 and 2 only
- 3 only
- 2 and 3 only
- 1, 2 and 3

Solution: c.

- The Cabinet Committee on Economic Affairs, chaired by Prime Minister Shri Narendra Modi has approved the proposal of Department of School Education and Literacy to formulate a Integrated Scheme on School Education

by subsuming Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE) from 1st April, 2018 to 31st March, 2020.

- The scheme comes in the backdrop of PM's vision of Sabko Shiksha, Achhi Shiksha and aims to support the States in universalising access to school education from classes pre-nursery to XII across the country.
- The vision of the Scheme is to ensure inclusive and equitable quality education from nursery to senior secondary stage in accordance with the Sustainable Development Goal for Education. The main emphasis of the Integrated Scheme is on improving quality of school education by focussing on the two T's – Teacher and Technology.

For details regarding the scheme (features, impact, benefits), click [HERE](#);

3. NIRF (National Institutional Ranking Framework) India Rankings 2018 is based upon certain parameters. Which among the following is **NOT** one?

- Teaching, Learning and Resources
- Research and Professional Practice
- Outreach and Inclusivity
- Public Perception

Solution: d.

4. Major Changes Introduced in India Rankings 2018

Taking cue from our experience in ranking of institutes in the previous two years, the following changes have been introduced in India Rankings 2018:

- ✍ First attempt to link the AISHE database with the ranking effort.
- ✍ Data on Patents applied for and earnings from patents discontinued as parameters.
- ✍ Perception from academic and industrial peers continued and made more broad-based.
- ✍ Public perception discontinued.
- ✍ Score computation methodologies and the parameters similar across domains and categories.
- ✍ Weights somewhat different on a few parameters, to take into account the discipline-specific /category-specific issues. Example: weight for research very small for general degree colleges.
- ✍ Indian Citation Index (ICI) discontinued as a source data for publications and citations.

The 5 main parameters (weightage shown in bracket for each parameter is from the 2017 methodology document, from the NIRF website) are:

- Teaching, Learning and Resources (30%)
- Research and Professional Practice (30%)
- Graduation and Outcome (20%)
- Outreach and Inclusivity (10%)
- Perception (10%; unlike earlier, the 'public perception' sub-component has been done away with this year)

Improvisation: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1527525>; [TH](#);

[PDF 2018 NIRF Rankings](#);

4. Which among the following is **NOT** one of the new categories to have been added in the latest NIRF ranking?
- Pharmacy
 - Medical
 - Architecture
 - Law

Solution: a.

Universities, Engineering, Colleges, Management and Pharmacy were categories under which rankings were computed and released last year. This year, three new categories have been added (see options in question).

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1527525;>

[https://www.nirfindia.org/2018/Ranking2018.html;](https://www.nirfindia.org/2018/Ranking2018.html)

5. In the overall rankings of NIRF 2018, the top three institutions are
- IISC-Bangalore, IIT-Madras, IIT-Bombay
 - IISC-Bangalore, IIT-Kharagpur, JNU-New Delhi
 - IIT-Delhi, IIT-Bombay, IIT-Kharagpur
 - IIT-Delhi, JNU-New Delhi, Banaras Hindu University-Varanasi

Solution: a.

Overall:

Indian Institute of Science, Bengaluru	1
Indian Institute of Technology Madras	2
Indian Institute of Technology Bombay	3
Indian Institute of Technology Delhi	4
Indian Institute of Technology Kharagpur	5
Jawaharlal Nehru University, New Delhi	6
Indian Institute of Technology Kanpur	7
Indian Institute of Technology Roorkee	8
Banaras Hindu University, Varanasi	9
Anna University, Chennai	10

<http://pib.nic.in/PressReleaseDetail.aspx?PRID=1527525;>

6. The Sharada Prasad Committee was set up by the Government of India to look into certain issues related to
- Cybersecurity
 - Cryptocurrencies
 - Skill Development
 - Internationalisation of the Rupee

Solution: c.

“Salvaging the Indian demographic dividend must be a key part of India’s growth story. In 2016, the Government of India formed the **Sharada Prasad Committee** to rationalise the Sector Skill Councils (SSCs), which are employer bodies mostly promoted by the Federation of Indian Chambers of Commerce and Industry, the Confederation of Indian Industry and other industry associations, and improve ‘Skill India’. The committee submitted its report in 2016..”

[http://www.thehindu.com/todays-paper/tp-opinion/skill-india-urgently-needs-reforms/article23448686.ece;](http://www.thehindu.com/todays-paper/tp-opinion/skill-india-urgently-needs-reforms/article23448686.ece)

7. The ‘Startup India Yatra’ is an initiative that is related to
- Development of startup ecosystems in villages
 - Awareness workshops on the Startup India Initiative being held at educational campuses across the country
 - The search for entrepreneurial talent in Tier-2 and Tier-3 cities
 - Startup India Hub’s international bilateral cooperation with countries having strong startup ecosystems

Solution: c.

The **Startup India Yatra** is an initiative that travels to Tier 2 and Tier-3 cities of India to search for entrepreneurial talent and help develop Startup ecosystem. The Startup Yatras have covered the States of Gujarat, Uttar Pradesh and Odisha where more than 18000 young entrepreneurs were supported through mentorship. Startup Yatra in Uttarakhand has recently been started on 2 April.

[http://pib.nic.in/newsite/PrintRelease.aspx?relid=178480;](http://pib.nic.in/newsite/PrintRelease.aspx?relid=178480)

8. Consider the following pairs:

Mobile App	–	Released by
1. Fund and Reform Tracker	–	Ministry of Human Resource Development
2. Sukhad Yatra	–	Ministry of Tourism
3. Khadi Store Locator	–	Ministry of Micro, Small and Medium Enterprises

Which of the pairs given above is/are correctly matched ?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Solution: c.

Fund and Reform Tracker mobile application (<http://pib.nic.in/newsite/PrintRelease.aspx?relid=161081>) will ensure that all projects under **RUSA** (Rashtriya Uchcharat Shiksha Abhiyan) are tracked 24x7.

Sukhad Yatra mobile application (<http://pib.nic.in/newsite/PrintRelease.aspx?relid=177000>) has been prepared by National Highways Authority of India, NHAI, to empower the Highway user. The key feature of the app includes provision for the user to enter road quality-related information or to report any accident or pothole on the highway. It also provides users with real-time data related to waiting time expected at Plazas and various facilities like points of interest, highway nest/nest mini, etc., available across the highway. The app can also be used by the users to purchase the **FASTag** tag and further facilitate the highway user experience.

Khadi Store Locator mobile app (<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178474>) – launched by Ministry of **MSME** (Khadi and Village Industries Commission comes under MSME ministry).

9. The “Van Dhan Vikas Kendra” will enable

1. Upgradation of skills of tribals
2. Integration of Minor Forest Produce value addition with the Mega Food Parks Scheme

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: a.

The **Ministry of Tribal affairs** has approved establishment of the first multipurpose “**Van Dhan Vikas Kendra**” on pilot basis for establishment in Bijapur District of Chhattisgarh State for providing skill upgradation and capacity building training and setting up of primary processing and value addition facility. This first model Van Dhan Vikas Kendra is being implemented for training of 300 beneficiaries, providing equipments & tools for primary level processing and infrastructure & building for housing the Kendra. This Kendra to start with will have processing facility for Tamarind brick making, Mahua flower storage facility and chironjee cleaning and packaging.

Certain other initiative that have already been taken by the ministry have been highlighted in this press release: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1528048>;

10. The ‘Swadhar Greh Scheme’ targets

- a) Women
- b) Adolescent children
- c) Senior citizens
- d) Families whose sole breadwinner is convicted of a heinous criminal offence

Solution: a.

The **Ministry of Women and Child Development** is implementing the **Swadhar Greh Scheme** which targets the women victims of difficult circumstances who are in need of institutional support for rehabilitation so that they could lead

their life with dignity. The Scheme envisages providing shelter, food, clothing and health as well as economic and social security for these women.

<http://vikaspedia.in/social-welfare/women-and-child-development/women-development-1/swadhar;>

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178468;>

11. The 'Logistics Division', tasked with integrated development of the logistics sector, works under the auspices of

- a) Ministry of Road Transport and Highways
- b) Ministry of Environment, Forests and Climate Change
- c) Ministry of Commerce and Industry
- d) NITI Aayog

Solution: c.

"With many ministries dealing with logistics, the need was felt for a nodal, coordinating agency for synergy among its various segments... The challenge for us is how to integrate these various modes into one actionable pathway.. So, the multi-modal transport issue is now being addressed by the new logistics division under the Commerce Ministry. It is the first time that logistics as a subject is being dealt with at the level of the Government of India," the Minister said.

Mr. Prabhu said that the logistics industry would serve as a key element that would allow entrepreneurship to blossom further in the country.

Additional Information: The government is working on creating a logistics index that would score States on their performance in the logistics sector.

<http://commerce.gov.in/InnerContent.aspx?Type=leftmenu&Id=364;>

Improvisation: <http://www.thehindu.com/business/Industry/states-to-compete-on-new-logistics-index/article23446518.ece;>

12. Consider the following pairs:

<i>Mobile App</i>	<i>Description</i>
1. UTTAM	: Road quality monitoring
2. Aarambh	: Single point of contact for the startup ecosystem
3. SEVA	: GST grievance redressal portal
4. UMANG	: Single platform for accessing several government services of Centre and States

Which of the pairs given above is/are correctly matched ?

- a) 1, 2 and 4 only
- b) 1 and 3 only
- c) 4 only
- d) None of the above

Solution: c.

- **UTTAM** (Unlocking Transparency by Third Party Assessment of Mined Coal; <http://pib.nic.in/newsite/PrintRelease.aspx?relid=178451>): The **Ministry of Coal** and Coal India Limited (CIL)

developed UTTAM; it aims to provide an App for all citizens and coal consumers to monitor the process of Third Party Sampling of coal across CIL subsidiaries.

- **Aarambh** (<http://pib.nic.in/newsite/PrintRelease.aspx?relid=168904>): Mobile app for rural roads maintenance (**Ministry of Rural Development**, NOT of Road Transport and Highways).
- **SEVA** (Saral Eindhyan Vitaran Application; **Ministry of Coal**; <http://pib.nic.in/newsite/PrintRelease.aspx?relid=162042>): For power sector consumers, it is aimed at increasing the Consumer Connect as well as the Transparency and Accountability in Coal dispatch. By using this app the common man would be able to hold the Government accountable for the coal linkage allocations and would be able to check any pilferage or inefficiencies in coal consumption for power generation.
- **UMANG (MEITY)**; <http://pib.nic.in/newsite/PrintRelease.aspx?relid=173780>): It is a single mobile app to access 1200+ services of various government services from Centre, State and utility services.

13. “Partners’ Forum”, the 2018 edition of which is to be hosted by New Delhi, is related to

- Maternal, newborn and child health
- Nuclear non-proliferation
- Sustainable farming
- Financial stability

Solution: a.

- The **2018 Partners’ Forum** will be held in New Delhi on 12 and 13 December 2018. It will be a unique platform for learning and exchange for the alliance of 1,000 organizations to align objectives, strategies and resources, and agree on interventions to improve maternal, newborn, child and adolescent health.
- The **Partnership for Maternal, Newborn & Child Health** is an alliance of organisations in 77 countries from the sexual, reproductive, maternal, newborn, child and adolescent health communities, as well as health influencing sectors.
- The PMNCH Partners’ Forum serves as a regular global platform for the renewal of commitment to the mission and purpose of the Partnership, for global high level advocacy and for achieving broad consensus on the strategy and priorities of the Partnership. Participation at the Forum comes from all constituencies and members of the Partnership.
- A Partners’ Forum has earlier been hosted by **India** in **2010**.

http://www.who.int/pmnch/about/partner_forum/en/; <http://pib.nic.in/newsite/PrintRelease.aspx?relid=178604>;
<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178600>;

14. “Dr. P. Rama Rao Committee” was constituted to conduct a comprehensive review of the

- Biological Diversity Act, 2002
- Prevention of Cruelty to Animals Act, 1962
- Defence Research and Development Organisation
- Supplementary Nutrition Programme

Solution: c.

This committee marked the first external review of the DRDO, set up in 2007, and whose recommendations were implemented by DRDO in 2015.

<http://www.thehindu.com/news/national/focus-will-be-on-tie-ups-drdo-chief/article23505642.ece>;

15. The 'Innovation for Defence Excellence' scheme will set up defence innovation hubs throughout the country to provide necessary incubation and infrastructure support to start-ups in the defence sector. In the context of startups, what are 'incubators' ?

1. These are organisations that work by enrolling startups in time-sensitive and very intensive programmes that offer mentorship and office space
2. They offer access to capital and investment in return for startup equity

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.

Accelerators

- Accelerators are organizations that offer a range of support services and funding opportunities for startups. They tend to work by enrolling startups in months-long programs that offer mentorship, office space and supply chain resources.
- More importantly, business accelerator programs offer access to capital and investment in return for startup equity.
- Startups essentially 'graduate' from their accelerator program after three or four months — which means that development projects are time-sensitive and very intensive.

Incubators

- An incubator is essentially an organization that provides startups with a shared operation space. Incubators also provide young businesses with networking opportunities, mentoring resources and access to shared equipment.
- This concept of a creative haven for startups has been around for a pretty long time, but rose to prominence in the 1980s after a large number of colleges and universities began to launch school-affiliated incubators in order to bolster entrepreneurship and employability. Because of that academic affiliation, a large number of startup incubators are run as nonprofits. They generally won't ask for equity in a company in return for access to funding or resources in the way that accelerators do. As a result, startups generally receive far less access to capital by joining an incubator than they could expect to receive from an accelerator.
- Incubators are also better than accelerators at fostering slow growth, because incubators do not generally put a time stamp on their support programs. Where accelerators sponsor intensive, boot camp style programs that last only a few months, startups can spend years working from within an incubator to establish growth.

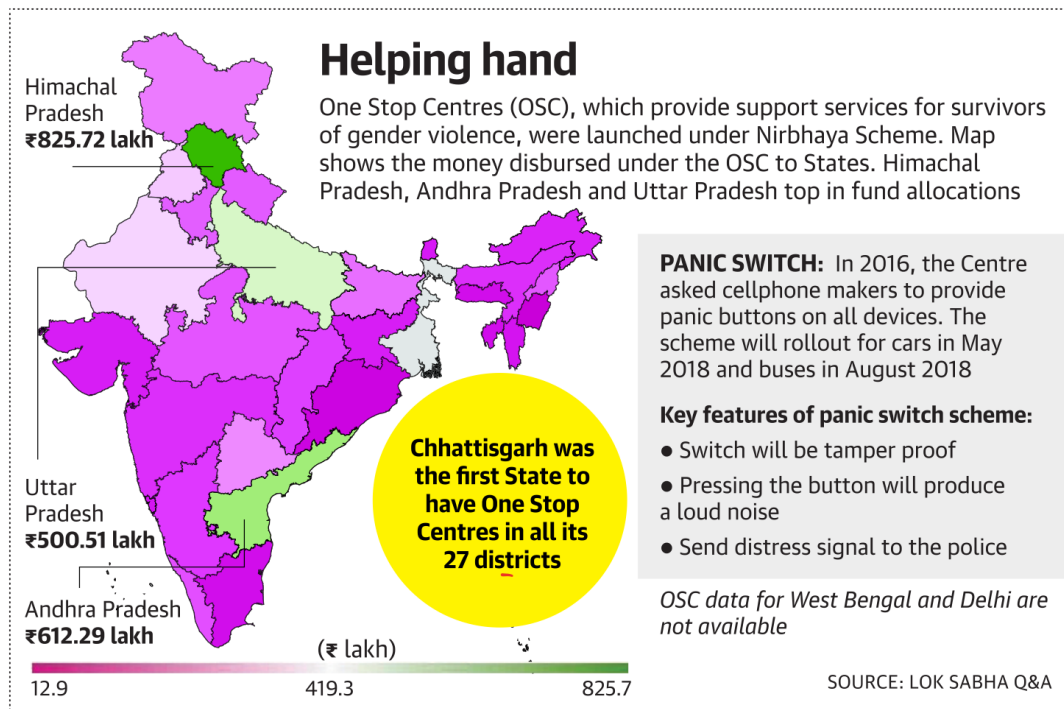
<https://smallbiztrends.com/2016/08/business-accelerator-differ-incubator.html>;

Improvisation: TH; PIB;

16. The Union Government's 'One Stop Centre'

- Offers support services for survivors of gender violence
- Is a single window facility for setting up a business in India
- Offers the same services that rural citizens avail at common service centres (CSCs), to urban dwellers
- Is a single window facility for availing housing loans under the Pradhan Mantri Awas Yojana

Solution: a.



<http://www.thehindu.com/news/national/centre-ties-up-with-iit-delhi-for-safety-switches-on-vehicles/article23550273.ece;>

17. Under the Pradhan Mantri Ujjwala Yojana, women beneficiaries are provided with cash assistance that covers the cost of

- Security deposit for LPG cylinder
- Installation charges
- First refill charge
- LPG stove

Select the correct answer using the code given below:

- 1, 2 and 3 only
- 1 and 2 only
- 3 and 4 only
- 1, 2, 3 and 4

Solution: b.

- PMUY scheme provides assistance of Rs. 1600/- to the woman beneficiary, comprising security deposit of 14.2 Kg cylinder and domestic pressure regulator; suraksha hose; domestic gas consumer card and installation charges.
- The customer will have to pay towards purchase of LPG stove and first refill charges at the time of release of new LPG connection under the scheme. Beneficiaries will have the option to either make upfront payment or avail the EMI option. (Cost of LPG stove or Refill or both will be recovered on EMI basis by the OMCs from the subsidy amount due to the consumer on purchase of each refill.)

From 2017: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=167449>; [PMUY FAQs](#); [TH](#);

18. 'FIEOGlobalLinker' is a digital platform associated with

- MSME Industries
- Startups
- The international legal fraternity
- Stock Exchange

Solution: a.

It is a digital platform for MSME exporters.

- The Federation of Indian Export Organisations GlobalLinker has been set up with a view to make the business growth of SMEs simpler and more profitable.
- It is a growing global network currently comprising over 140,000 SME firms, who are seeking business collaboration and growth opportunities through the use of their electronic business card and digital profiles created on the platform.
- It is available free of cost and it offers exporters a range of features and benefits like:
 - Business opportunities
 - Up-to-date business knowledge
 - Improved efficiencies
 - FIEO services

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178720>;

19. 'DARPAN' project is part of an IT modernisation plan of

- Ministry of Information and Broadcasting
- Ministry of Communications
- Ministry of Home Affairs
- Ministry of Electronics and Information Technology

Solution: b.

With a view to achieve total digitisation of postal operations in the country, under the IT Modernisation Plan, **Department of Posts (Ministry of Communications)** has launched **Digital Advancement Of Rural Post Office For A New India (DARPAN) Project**, which aims at connecting all 1.29 lakh Rural Branch Post Offices in the country to enable them to do **online Postal and Financial Transactions**. Another aim of DARPAN project is to achieve **financial inclusion** of rural population.

In the news: DARPAN-PLI App, which will help in collection of premium for PLI and RPLI policies at Branch Post Offices anywhere in India, was recently launched.

[http://pib.nic.in/newsite/PrintRelease.aspx?relid=174674;](http://pib.nic.in/newsite/PrintRelease.aspx?relid=174674)

20. The National Council on India's Nutritional Challenges, set up under the National Nutrition Mission, will be chaired by the

- a) Prime Minister
- b) Officer on Special Duty, Ministry of Health and Family Welfare
- c) Chairperson, Indian Council of Medical Research
- d) Vice Chairperson, NITI Aayog

Solution: d.

There is a provision for setting up of a **National Council on India's Nutritional Challenges** under the Chairmanship of Vice-Chairman NITI Aayog. The mandate of the National Council on India's Nutritional Challenges is as under:

- Provide policy directions to address India's nutritional challenges through coordinated inter-sectoral action.
- Coordinate and review convergence between Ministries.
- Review programmes for nutrition on a quarterly basis.

The Council will submit its report to the **Prime Minister** every **6 months**.

[http://pib.nic.in/newsite/PrintRelease.aspx?relid=178746;](http://pib.nic.in/newsite/PrintRelease.aspx?relid=178746)

From January: [http://pib.nic.in/newsite/PrintRelease.aspx?relid=175324;](http://pib.nic.in/newsite/PrintRelease.aspx?relid=175324)

21. The Multi-Sectoral Development Programme (MSDP) was conceived as a special initiative as part of the follow up action on the recommendations of the

- a) Sachar Committee on the social, economic and educational condition of Muslims in India
- b) Indian Education Commission, popularly known as Kothari Commission
- c) V. Kamakoti task force on logistics
- d) None of the above

Solution: a.

The **MsDP (Ministry of Minority Affairs)** was conceived as a special initiative as part of the follow up action on the **Sachar Committee recommendations**.

It is a Centrally Sponsored Scheme (CSS) approved by the Government in the beginning of the 11th five Year Plan and launched in the year 2008-09 in 90 Minority Concentrations Districts (MCDs). It is an area development initiative to address the development deficits of minority concentration areas by creating socio-economic infrastructure and providing basic amenities.

[http://pib.nic.in/newsite/PrintRelease.aspx?relid=178728;](http://pib.nic.in/newsite/PrintRelease.aspx?relid=178728)

22. “Prabhari Officers” or “in-charge officers” have been appointed to coordinate the efforts of the centre and the states in implementing
- GOBAR-Dhan Yojana
 - Ayushman Bharat – National Health Protection Mission
 - PM Ujjwala Yojana
 - Aspirational Districts Programme

Solution: d.

In keeping with the Prime Minister Narendra Modi’s vision of a **New India by 2022**, Government has embarked upon a major policy initiative for the **rapid transformation of 115 backward districts** across the country. Senior Government officials in the rank of the **rank of Additional Secretary and Joint Secretary** have been designated as **Prabhari Officers** or the in-charge to coordinate the efforts of the Centre and the states in addressing the specific developmental needs of the districts.

[http://pib.nic.in/newsite/PrintRelease.aspx?relid=173788;](http://pib.nic.in/newsite/PrintRelease.aspx?relid=173788)

Improvisation: [http://pib.nic.in/newsite/PrintRelease.aspx?relid=178820;](http://pib.nic.in/newsite/PrintRelease.aspx?relid=178820)

23. Consider the following statements about Rashtriya Gram Swaraj Abhiyan (RGSA):

- It will extend to all States and UTs of the country
- It will include institutions of rural local government in non-Part IX areas, where panchayats do not exist
- The sunset date for this scheme is 2030

Which of the statements given above is/are correct ?

- 1 only
- 2 and 3 only
- 1, 2 and 3
- None of the above

Solution: c.

All statements are correct.

- The implementation and monitoring of the activities of the scheme will broadly be aligned for achieving the **Sustainable Development Goals (SDGs)** with main thrust on **Panchayats** identified under **Mission Antyodaya** and 115 Aspirational districts as identified by NITI Aayog.
- Sunset date for RGSA will be 31.03.2030.
- The key principles of SDGs, i.e. leaving no one behind, reaching the farthest first and universal coverage, along with gender equality will be embedded in the design of all capacity building interventions including trainings, training modules and materials. Priority will be given to subjects of national importance that affects the excluded groups the most, e.g. poverty, primary health services, nutrition, immunization, sanitation, education, water conservation, digital transactions etc.
- As Panchayats have representation of Schedule Castes, Schedule Tribes and women, and are institutions closest to the grass-roots, strengthening Panchayats will promote equity and inclusiveness, along with social justice and economic development of the community.

[http://pib.nic.in/newsite/PrintRelease.aspx?relid=178826;](http://pib.nic.in/newsite/PrintRelease.aspx?relid=178826)

24. 'Civil Services Day' commemorates

- a) Sardar Vallabhai Patel's address to the probationers of administrative services officers in 1947
- b) The date on which the last princely state acceded to India
- c) Sardar Vallabhai Patel's birthday
- d) The date on which Satyedranath Tagore – the first Indian Civil Servant – was selected to the services

Solution: a.

The Government of India celebrates **April 21** every year as '**Civil Services day**' as an occasion for the civil servants to rededicate themselves to the cause of citizen and renew their commitments to public service and excellence in work. This date is chosen to commemorate the day when first Home Minister of Independent India, Sardar Vallabhbhai Patel addressed the probationers of Administrative Services Officers in 1947 at Metcalf House, Delhi, he referred to civil servants as the 'steel frame of India'. The first such function was held in Vigyan Bhawan, New Delhi 21 April 2006.

DARPG: [Civil Services Day](#); **Improvisation:** [PIB](#);

25. Why was Mission Indradhanush launched ?

- a) To prevent mortality and morbidity in children and pregnant women against some vaccine preventable diseases
- b) To dispel myths about vaccination among parents
- c) To provide free medication to patients belonging to BPL households admitted in private hospitals
- d) To accelerate the immunisation coverage under the Universal Immunisation Programme

Solution: d.

The UIP was launched in 1985. Thus, option 'a' holds good well before Mission Indradhanush was launched. The most appropriate answer for this question is option 'd'.

From 2014 ([PIB](#)): The Health Minister informed that between 2009-2013 immunization coverage has increased from 61% to 65%, indicating only 1% increase in coverage every year. To accelerate the process of immunization by covering 5% and more children every year, the Mission Mode has been adopted to achieve target of at least 90% coverage by 2020, he stated.

In 2017 ([PIB](#)), "Intensified Mission Indradhanush (IMI)" was launched. The special drive will focus on improving immunization coverage in select districts (high priority districts) and urban areas to ensure full immunization to more than 90% by December 2018. The achievement of full immunisation under Mission Indradhanush to at least 90% coverage was to be achieved by 2020 earlier. With the launch of IMI, achievement of the target has now been advanced.

Improvisation: [IH](#);

IV. SCIENCE AND TECHNOLOGY

1. Consider the following statements about the 'Micro Solar Dome (MSD)' or '*Surya Jyoti*', a green energy initiative of the Department of Science and Technology:

1. It gives an illumination equivalent of a 60W incandescent light bulb
2. It is a day-and-night lighting device

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

Solution: c.

- The **MSD** is a day-and-night lighting single device unique in its features, that has a transparent semi-spherical upper dome made of acrylic material which captures the sunlight and the light passes through a sun-tube having a thin layer of highly reflective coating on the inner wall of the passage.
- There is a shutter in the bottom of the lower dome which can be closed, if light is not required in the daytime.
- It is **leak proof** and works throughout the day and 4 hours continuously after sunset (in the case of PV-Integrated MSD).
- There are two types of MSDs – **PV Integrated** and **non-PV Integrated**.

Source/Improvisation: <http://www.thehindu.com/news/national/other-states/100-zero-fuel-bulb-shines-bright/article23402550.ece>;

From 2016: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=153493>;

2. Services under the 'S-band' frequencies offered by satellites are related to

- a) Navigation aids
- b) FM radio
- c) Radio Astronomy
- d) Microwave telecommunications

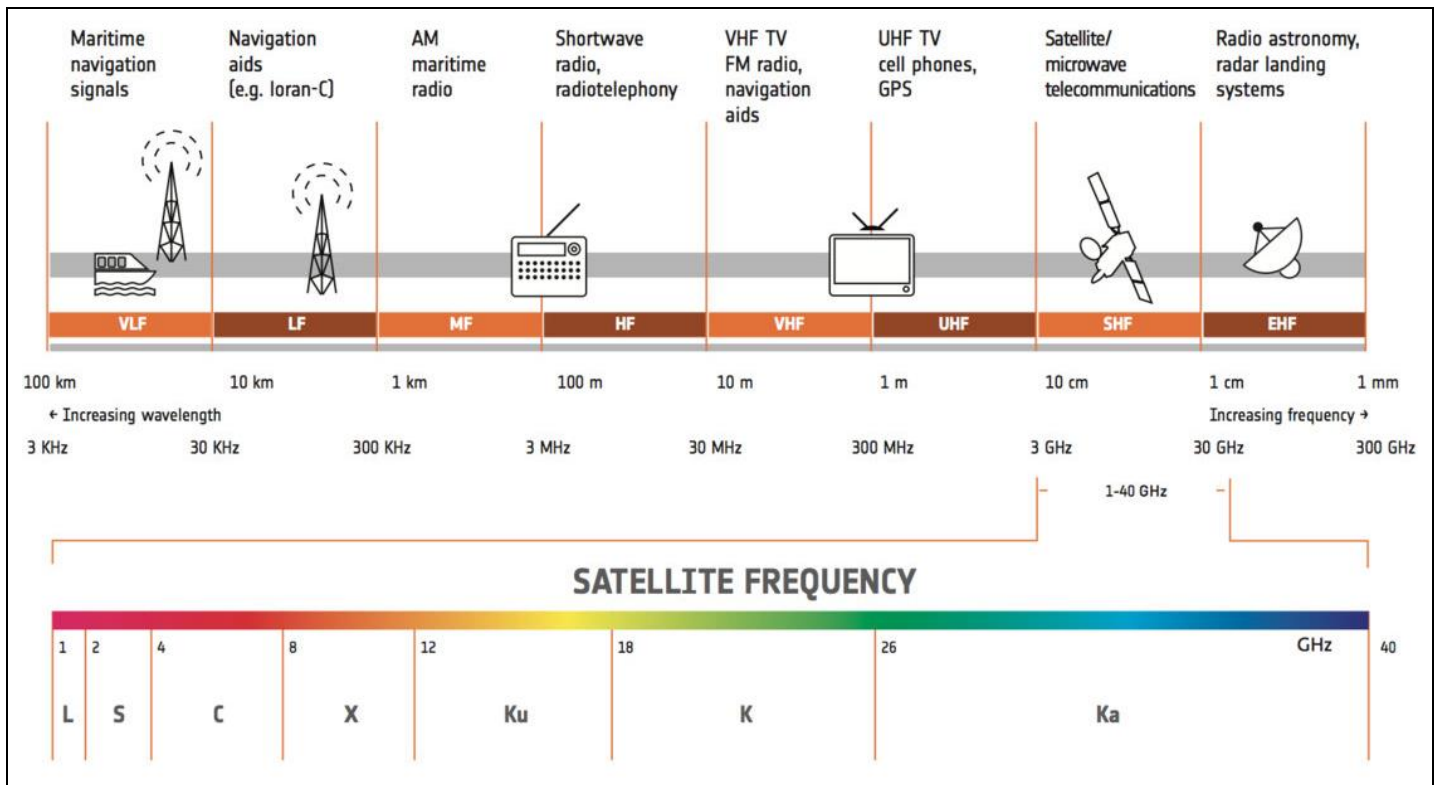
Solution: d.

- The frequency range for the S band is 2 to 4 GHz, which crosses the conventional boundary between UHF (Ultra High Frequency) and SHF (Super-High Frequency), which is at 3 GHz.

Satellite Frequency Bands:

https://m.esa.int/Our_Activities/Telecommunications_Integrated_Applications/Satellite_frequency_bands;

Source/Improvisation: [Th1](#); [Th2](#) (GSAT-6A);



3. 'Cryptojacking', increasingly appearing in the news, refers to

- The use of malicious software designed to block access to a computer system until a sum of money in the form of cryptocurrencies is paid
- Hijacking of a system's processing power in order to mine cryptocurrency
- The spike in cryptocurrency mining leading to recurring shortages of Graphics Processing Units
- None of the above

Solution: b.

- Widely publicized hacks such as the WannaCry worm, which affected systems on several continents in May 2017, encrypted victims' files and demanded cryptocurrency ransoms – bitcoin, in the case of WannaCry – in order to decrypt them.
- Cryptojacking takes a different approach, harnessing victims' machines to "mine": perform the computations necessary to update cryptocurrencies' blockchains, creating new tokens and generating fees in the process. These new tokens and fees are deposited to wallets owned by the attacker, while the costs of mining – electricity and wear and tear to computers – are borne by the victim.

In the news: "The (Internal Security Threat) report also pointed out that with the threat landscape becoming more diverse, attackers are working harder to discover new avenues of attack and cover their tracks while doing so. "From the sudden spread of WannaCry and Petya/NotPetya, to the swift growth in coinminers, 2017 provided us with another reminder that digital security threats can come from new and unexpected sources," it said. Cyber criminals, it said, are rapidly adding "cryptojacking" to their arsenal as the ransomware market becomes overpriced and overcrowded. "Cryptojacking is a rising threat to cyber and personal security... The massive profit incentive puts people, devices and organisations at risk of unauthorised coinminers siphoning resources from their systems, further motivating criminals to infiltrate everything from home PCs to giant data centers."

<https://www.investopedia.com/terms/c/cryptojacking.asp>;

4. NASA recently inked a deal with Lockheed Martin to develop an 'X-plane'. What is the purpose of this project?
- To design a supersonic plane that can break the sound barrier without a sonic boom
 - To build a reusable space shuttle that will be capable of supplying goods and astronauts to and back from the International Space Station
 - To design an International Space Station that can return to earth occasionally
 - Making flying commercial cars a reality

Solution: a.

The key to success for this mission – known as the **Low-Boom Flight Demonstrator** – will be to demonstrate the ability to fly supersonic, yet generate sonic booms so quiet, people on the ground will hardly notice them, if they hear them at all. Current regulations, which are based on aircraft speed, ban supersonic flight over land. With the low-boom flights, NASA intends to gather data on how effective the quiet supersonic technology is in terms of public acceptance by flying over a handful of U.S. cities, which have yet to be selected.

<https://www.nasa.gov/lbfd/new-nasa-x-plane-construction-begins-now/>;

<http://www.thehindu.com/sci-tech/science/nasa-hires-lockheed-martin-to-build-supersonic-plane/article23437031.ece>;

5. Where is India's 'Doomsday' vault – the second largest such vault in the world – located ?
- Andaman and Nicobar Islands
 - Jammu and Kashmir
 - Himachal Pradesh
 - Sikkim

Solution: b.

- Built jointly by the **Defence Institute of High Altitude Research (DIHAR)** and the **National Bureau of Plant Genetic Resources (NBPGR)** in 2010 under the aegis of Defence Research and Development Organisation (**DRDO**), this permafrost seed bank is the **second largest** in the world.
- Perched at a height of 17,300 feet above sea level, **India's doomsday vault** (the Svalbard Seed Vault in Norway is referred to as the world's doomsday vault) lies in **Chang La** (a high-altitude mountain pass in Ladakh) and is the ultimate insurance policy for the country's food supply.
- Also, Chang La's **natural permafrost** conditions offer an affordable and energy-efficient alternative to **cryopreservation**. Presently, the only other facility in India for long-term storage of seeds is the one set up by Indian Council of Agricultural Research (ICAR) in New Delhi but it generates an enormous electricity bill thanks to the energy demands of cryopreservation.
- The Chang La seed vault's sealed 'black box' design prevents disputes over intellectual property rights. According to this arrangement, the vault does not claim ownership over the deposited samples. Thus, the ownership remains with the depositor, who has the sole right of access to the respective samples in the seed vault.
- With the aim of rivalling the Svalbard Seed Vault, India has made storing of viable seeds at Chang La free of cost for all government departments and research organisations.
- It also plans to open the facility to the international scientific community but for that, it will have to install a high-tech cooling system for 15-20 days when the temperature at the mountain pass peaks to -4 degrees.

From March: <https://www.thebetterindia.com/132661/chang-la-ladakh-doomsday-vault-india/>;

6. Recently in the news, what is unique about the 'Sabre Engine' being developed by the company 'Reaction Engines Limited' ?
- It is a jet engine that consumes only half the fuel that traditional aircraft engines utilise to generate the same thrust
 - It is a part jet engine, part rocket engine that will enable hypersonic travel around the earth
 - This engine will power NASA's Quiet Supersonic Technology-based X-planes that will enable supersonic travel around the earth
 - None of the above

Solution: b.

- Reaction Engines Limited (REL), the UK company developing a revolutionary aerospace engine, recently announced investments from both Boeing and Rolls-Royce.
- REL is working on a propulsion system that is part jet engine, part rocket engine. The company believes it will transform the space launch market and usher in hypersonic travel around the Earth.
- 'Hypersonic' refers to speeds of more than five times the speed of sound (Mach 5).
- REL is developing what it calls the Sabre engine. This power plant is designed to push a vehicle from a standing start all the way to orbit in a single step.
- It would work like a conventional jet engine up to about Mach 5.5 before then transitioning to a rocket mode for the rest of the ascent.
- Key technologies include a compact pre-cooler heat-exchanger that can take an incoming airstream at a temperature of over 1,000C and cool it to -150C in less than 1/100th of a second. This would permit Sabre to use oxygen direct from the atmosphere for combustion instead of carrying it in a tank with the weight penalty that implies.

<http://www.bbc.com/news/science-environment-43732035>;

7. Regarded by some as the most significant development since the safety belt, the Autonomous Emergency Braking (AEB) set up
- Automatically brings the car to a stop if it gets too close to another vehicle
 - Warns drivers about hazards on roads
 - Can help reduce vehicle insurance premiums

Select the correct answer using the code given below:

- 1 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Solution: d.

Since the Volvo XC90 went on sale in the UK in 2002 it has sold over 50,000 vehicles, yet not a single person has been killed while driving it, or as a passenger. It is, according to the independent laboratory Thatcham Research, the safest car it has ever tested.

One reason for the Volvo's success is that it was an early leader in the use of camera and radar systems to warn drivers about hazards on the road. These systems now automatically bring the car to a stop if it gets too close to another vehicle. Apart from saving your life, Autonomous Emergency Braking (AEB) – as it is known – could also bring cheaper insurance premiums (By cutting the number of accidents, it is possible that the cost of insuring a car with AEB could also come down.)

Most AEB systems use **radar**, (stereo) **camera** and/or **lidar-based technology** to identify potential collision partners ahead of the car.

[http://www.bbc.com/news/business-43752226;](http://www.bbc.com/news/business-43752226)

[https://www.euroncap.com/en/vehicle-safety/the-rewards-explained/autonomous-emergency-braking/;](https://www.euroncap.com/en/vehicle-safety/the-rewards-explained/autonomous-emergency-braking/)

8. The speciality about 'AlterEgo', a wearable human-computer interface (HCI) device, is that it
- Interprets real world gestures in real time
 - Enables the wearer to 'silently listen' to the thoughts of another
 - Is an eye lens which is meant to help people with low vision or blindness navigate more easily
 - None of the above

Solution: d.

MIT researchers have created a wearable device called **AlterEgo** that can recognize nonverbal prompts, essentially "reading your mind." The system is made up of a device that loops around a user's ear, follows their jawline, and attaches underneath their mouth, and a computer system. The wearable device has electrodes that pick up neuromuscular signals in your jaw and face that are triggered by internal verbalizations (aka saying words in your head) but can't be seen by the human eye. These signals are then given to a machine learning system that analyzes the data, associating specific signals with words.



The system can communicate with the user via a pair of "bone-conducting headphones" by transmitting vibrations from the face to the ear. The headphones are meant to effectively convey information to the user without interrupting their conversation or hearing.

To create the device, the researchers had to figure out the locations on the face that had the most reliable neuromuscular signals. To do so, they asked subjects "to subvocalize the same series of words four times," and used 16 electrodes at different facial locations to detect the signals. They then generated a code to analyze the data, which found that seven particular places on the face were able to recognize the nonverbal words. The resulting wearable device uses sensors in those locations, though the researchers are working on a device that can do the same with only four sensors along the jaw.

TH; [TheVerge;](#)

9. NASA's 'TESS', to be carried by SpaceX's Falcon 9 rocket, is a
- Space telescope to discover exoplanets
 - A space submarine to study Europa's subsurface ocean
 - Mechanical spacewalker to reduce the risks associated with humans spacewalking
 - "Mousetronaut" experiment to understand the impact of long-term space travel on living beings

Solution: a.

On Wednesday, April 18, NASA is expected to launch **TESS (Transiting Exoplanet Survey Satellite)**, which will monitor more than 200,000 stars for temporary drops in brightness caused by planetary transits.

TESS scientists expect the mission will catalog thousands of planet candidates and vastly increase the current number of known exoplanets. Of these, approximately 300 are expected to be Earth-sized and super-Earth-sized exoplanets, which are worlds no larger than twice the size of Earth. TESS will find the most promising exoplanets orbiting our nearest and brightest stars, giving future researchers a rich set of new targets for more comprehensive follow-up studies.

[TH1](#); [TH2](#);

10. "PETase", seen recently in the news, is

- An advanced floater technology that will help rid the world's oceans of plastic
- A plastic-eating enzyme produced by a naturally-occurring bacteria
- A plastic harpoon which will "chase" redundant satellites and drag them down to burn up in the atmosphere
- A plant-based alternative to common plastics

Solution: b.

- Scientists have improved a naturally occurring enzyme which can digest some of our most commonly polluting plastics. PET, the strong plastic commonly used in bottles, takes hundreds of years to break down in the environment. The modified enzyme, (the enzyme's known as **PETase**), can start breaking down the same material in just a few days.
- This could revolutionise the recycling process, allowing plastics to be re-used more effectively.
- Originally discovered in Japan, the enzyme is produced by a bacterium which "eats" PET. *Ideonella sakaiensis* uses the plastic as its major energy source. Researchers reported in 2016 that they had found the strain living in sediments at a bottle recycling site in the port city of Sakai.
- "[PET] has only been around in vast quantities over the last 50 years, so it's actually not a very long timescale for a bacteria to have evolved to eat something so man-made," commented Prof John McGeehan, who was involved in the current study.
- Polyesters, the group of plastics that PET (also called polyethylene terephthalate) belongs to, do occur in nature. "They protect plant leaves," explained the University of Portsmouth researcher. "Bacteria have been evolving for millions of years to eat that."

[BBC](#); [TH](#);

11. The “Open Heritage Project”, recently in the news, is a joint effort of
- Archaeological Survey of India and Indian National Trust for Art and Cultural Heritage
 - IIT Madras and the Ministry of Housing and Urban Affairs
 - Google and CyArk
 - UNESCO and the International Council on Monuments and Sites

Solution: c.

Google has partnered with 3D laser scanning nonprofit CyArk to help preserve historical sites around the world that are at risk of irreversible damage or total erasure due to human conflict and natural disasters. The joint effort, called the Open Heritage project, will use CyArk’s laser-scanning technology to create high resolution 3D scans of historical sites to re-create them virtually, so they can be preserved and explored online either on a computer, through a mobile device, or while wearing a virtual reality headset.

A short video: [BBC](#); [The Verge](#);

12. Thought to be similar to the cold, saline conditions in the subsurface ocean of Jupiter’s moon Europa, where have researchers recently found subglacial lakes that may shed light on icy worlds in our solar system ?
- Antarctica
 - Canada
 - Himalayas
 - Greenland

Solution: b.

- High in the Canadian Arctic, two subglacial bodies of water have been spotted beneath over 500 metres of ice.
- The water has an estimated maximum temperature of -10.5C, and would need to be very salty to avoid freezing.
- Although water systems beneath large ice sheets are being found to be increasingly common, this Canadian region (Devon Island’s ice cap) was thought to be frozen to the bedrock beneath.
- This is a unique lake system. Of the [more than] 400 subglacial lakes in Antarctica, all of them are thought to comprise fresh water. Hence, whatever might be living in it may also be unique. The water in the lakes is estimated to be five times as salty as seawater, allowing its freezing point to be lowered below that of fresh water.
- Other subglacial lakes in Greenland and Antarctica contain fresh water, generated by melting at the base of the ice. Geothermal heat rises from the underlying rock, and is insulated by the thick ice sheet above. The Canadian ice sheet is not thick enough to provide this insulation.
- The study’s authors suggest the lakes may have been sealed off from surrounding environments for up to 120,000 years. They may provide a window to life beyond Earth.

<http://www.bbc.com/news/science-environment-43701375>;

13. The National Disaster Management Authority recently issued a warning to fishermen to keep off the sea this weekend due to “Swells”. A ‘Swell’ refers to
- An unusual and localised weather system that causes frequent and rapid rise and fall in tidal levels along the coast
 - A series of high-energy waves that are generated by distant weather systems
 - An increase in ocean wave turbulence that is caused due to undersea volcanoes
 - Spells of thunder showers along with very strong winds which affect the sea levels locally, rendering it impossible for fishermen to navigate the waters

Solution: b.

India’s coasts will be lashed by ‘**high energy swell waves**’ on Saturday and Sunday, hence fishermen as well as beach-loungers ought to be staying away, according to an alert from the National Disaster Management Agency (NDMA). “There is a strong indication that high energy swell waves, with heights between 2 m and 3 m and periods between 17-22 seconds are likely to be experienced in the seas around India,” the note adds. This is based on a forecast from the Hyderabad-based **Indian National Centre for Ocean Information Services (INCOIS)**, which is charged with issuing tsunami alerts.

- ‘Swell waves’ are massive ripples that form on the sea due to winds coming from as far away as Madagascar (big waves formed due to prolonged wind action). They might appear to be tsunami-like waves but have completely different characteristics.
- **Swell**: These are series of surface gravity waves that are generated not by the immediate local wind, but by distant weather systems, where wind blows for a duration of time over a fetch (the uninterrupted distance of open water over which the wind blows without significant change in direction) of water.
- Swells have a narrower range of frequencies and directions than locally generated wind waves, because swell waves have dispersed from their generation area, have dissipated and therefore lost an amount of randomness, taking on a more defined shape and direction.

From 2016: [TH](#); Source/Improvisation: [TH](#);

14. A treasure trove found in northern Germany is being called Bluetooth. Why ?
- It was found on land owned by the Indian inventors of Bluetooth technology
 - It contains the largest find of necklaces made of teeth of the now-critically endangered Blue Whale
 - It dates to a 10th century Danish King Harald Bluetooth
 - None of the above

Solution: c.

A GK question.

Harald Bluetooth was born a Viking and is credited with unifying Denmark and introducing Christianity there during his reign. The king was immortalised by Nordic technology firms when they embedded their wireless “Bluetooth” technology in digital gadgets.

<http://www.bbc.com/news/world-europe-43786129>;

15. Which of the following is/are some drawbacks associated with 'hydraulic fracturing' ?

1. A water-intensive process
2. Causes groundwater pollution
3. Causes food insecurity
4. Causes air pollution

Select the correct answer using the code given below:

- a) 1, 2 and 4 only
- b) 1 and 2 only
- c) 4 only
- d) 1, 2, 3 and 4

Solution: a.

“As **fracking** (also known as ‘**hydraulic fracturing**’) consumes large amounts of water (average 15,000 m³/well) and relatively larger surface area, it is bound to impact irrigation and other local requirements. In the U.S. experience, out of 260 chemical substances, 58 have been identified to pose a risk to human life and environment, eight are carcinogens and 17 are toxic to freshwater organisms. Further, as 25-90% of the fluid is not retrieved and cracks in the shaft are possible, there is a high risk of pollution to nearby underground water. Instances of groundwater pollution have been reported in the U.S. (Pennsylvania) and Canada. Fracking has other impacts such as increased air emissions (including greenhouse gases such as methane) and seismic activity. Environmental impact assessments of the European Union and the U.K. have recognised these risks... Countries like Germany and France and subnational governments like Scotland have already banned fracking.”

Hydraulic fracturing, or fracking, is a technique designed to recover gas and oil from shale rock.

- It is the process of drilling down into the earth before a high-pressure water mixture is directed at the rock to release the gas inside.
- Water, sand and chemicals are injected into the rock at high pressure which allows the gas to flow out to the head of the well.
- The process can be carried out vertically or, more commonly, by drilling horizontally to the rock layer and can create new pathways to release gas or can be used to extend existing channels.
- The term fracking refers to how the rock is fractured apart by the high pressure mixture.

Primary source: [TH](#); [BBC](#);

Clarification:

- Food insecurity would be an indirect consequence of fracking. The question should have reflected this aspect clearly – that we were asking for the firsthand consequences of fracking.

16. Consider the following statements:

1. The Earth BioGenome project aims to sequence the genomes of all of Earth's eukaryotic biodiversity known to humankind
2. A Eukaryote is any cell or organism that possesses a clearly-defined nucleus

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

Solution: c.

The **Earth BioGenome Project**, a Moon Shot for biology, aims to sequence, catalog and characterize the genomes of all of Earth's **eukaryotic biodiversity** (that are **known to humankind** of course) over a period of ten years.

The Earth BioGenome Project will create a new foundation for biology, informing a broad range of major issues facing humanity, such as

- the impact of climate change on biodiversity,
- the conservation of endangered species and ecosystems, and
- the preservation and enhancement of ecosystem services.

For the **first time in history**, it is possible to **efficiently sequence the genomes of all known species**, and to use genomics to **help discover** the remaining 80 to 90 percent of species that are currently hidden from science.

[3 Goals of the Earth BioGenome Project;](#)

<http://www.thehindu.com/opinion/op-ed/for-a-digital-library-of-life/article23650279.ece;>

17. 'Hydraulic fracturing' is an enabling technology for

1. Shale gas extraction
2. Production of Coalbed Methane
3. Releasing gas from Tight Sands

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

Solution: d.

Extracting unconventional gas is relatively new. Coalbed methane production began in the 1980s; shale gas extraction is even more recent. The main enabling technologies, **hydraulic fracturing** and **horizontal drilling**, have opened up new areas for oil and gas development, with particular focus on natural gas reservoirs such as shale, coalbed and tight sands.

- **Shale Gas Extraction**
- **Production of Coalbed Methane:** Coalbed methane (CBM) was first extracted from coal mines as a safety measure to reduce the explosion hazard posed by methane gas in the mines. Today the methane is captured and used as a source of energy. Deeper coal formations might require hydraulic fracturing to release the natural gas.
- **Tight Sands:** Tight sands are gas-bearing, fine-grained sandstones or carbonates with a low permeability. Unless natural fractures are present, almost all tight sand reservoirs require hydraulic fracturing to release gas.

Improvisation: [TH](#); Source: [EPA](#);

18. Which one of the following is **NOT** a vector borne disease?

- Lymphatic filariasis
- Japanese encephalitis
- Leishmaniasis
- Ebola

Solution: d.

Ebola virus disease (EVD), formerly known as Ebola haemorrhagic fever, is a severe, often fatal illness in humans. The virus is transmitted to people from wild animals and spreads in the human population through human-to-human transmission.

[PIB](#); [Vector Borne Diseases](#);

19. 'Hipparcos', recently in the news, is most closely related to the

- Joint 'Mars Sample Return' mission proposed by NASA and ESA to bring back rock and soil sample from Mars
- European Space Agency's Gaia satellite that recently produced a 3-D map of more than a billion stars in the Milky Way galaxy
- Joint European and Russian space mission 'ExoVenus Trace Gas Orbiter' to study methane and other rare gases in Venus's atmosphere
- Largest and oldest starburst galaxies to ever be detected

Solution: b.

[ESA: Richest star map](#)

- "The second Gaia data release represents a huge leap forward with respect to ESA's Hipparcos satellite, Gaia's predecessor and the first space mission for astrometry, which surveyed some 118 000 stars almost thirty years ago..."
- A multitude of discoveries are on the horizon after this much awaited release, which is based on 22 months of charting the sky. The new data includes positions, distance indicators and motions of more than one billion stars, along with high-precision measurements of asteroids within our Solar System and stars beyond our own Milky Way Galaxy.
- Preliminary analysis of this phenomenal data reveals fine details about the make-up of the Milky Way's stellar population and about how stars move, essential information for investigating the formation and evolution of our home Galaxy.

- Gaia was launched in December 2013 and started science operations the following year. The first data release, based on just over one year of observations, was published in 2016; it contained distances and motions of two million stars.
- The new data release, which covers the period between 25 July 2014 and 23 May 2016, pins down the positions of nearly 1.7 billion stars, and with a much greater precision. For some of the brightest stars in the survey, the level of precision equates to Earth-bound observers being able to spot a Euro coin lying on the surface of the Moon.

Source/Improvisation: [TH](#);

20. 'Bhabha Kavach', developed by the Bhabha Atomic Research Centre, refers to

- a) An armoured civilian vehicle that is meant to be used by security firms to carry money
- b) Advanced nuclear protective gear that has been specifically designed for one-time use in contaminated nuclear sites
- c) A next-generation bulletproof jacket
- d) Specialised armour to protect ISRO's launch vehicles against impacts from fragments of space debris

Solution: c.

- The Bhabha Atomic Research Centre (BARC) has developed a next-generation bulletproof jacket for the Indian armed forces, which is not only cheaper but also much lighter.
- Bhabha Kavach can shield from AK-47 (hard steel bullets), SLR and INSUS weaponry. The jacket weighs just 6.6 kg in comparison to the 17-kg jackets in use, and has passed over 30 tests carried out by certified agencies. Bhabha Kavach is available in three variants as per the requirement of the armed forces.

<http://www.thehindu.com/news/national/bulletproof-jackets-from-barc/article23673507.ece>;

V. INTERNATIONAL RELATIONS AND ORGANIZATIONS

1. Consider the following statements:

1. The European Union's GDPR (General Data Protection Regulation) will apply to some Indian IT firms
2. The E.U. is India's largest trading partner, ahead of China
3. Presently, the Indian IT Act does not, in any manner, address the issues associated with entities collecting personal data

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Solution: a.

All of this information has appeared in The Hindu over the past few days.

TH1: "It was only in 2017 that the Ministry of Electronics and Information Technology released a White Paper by a committee of experts led by former Supreme Court judge, Justice B.N. Srikrishna, on a data protection framework for India. Until that consultative process agrees upon basic principles to guide data protection laws, India will continue to suffer the existing regulatory framework under the Information Technology Act, 2000, which only identifies six types of "sensitive personal data" and requires entities handling such data to have "reasonable security practices and procedures" in place before collecting the information."

TH2: "One can approach a court and seek redress under the IT Act, but only if you have suffered a loss of property or money. If your data has been breached or leaked, and you haven't suffered a monetary or property loss, there's nothing you can do."

"Apart from its profound significance for Europe, the GDPR has global implications as it also applies to those outside the E.U. who either monitor the behaviour of EU residents or sell goods and services to them. Consequently, the law is expected to have a significant impact on Indian IT firms and other service providers with an E.U. clientèle."

Source/Improvisation: [About E.U.'s GDPR](#)

[India-E.U. trade;](#)

2. The competent national authority for implementation of "Regional Oil Spill Contingency Plan" under the MoU that is to be signed between India and South Asian Cooperative Environment Programme (SACEP) will be the

- a) Indian Navy
- b) National Disaster Response Force
- c) State Disaster Response Forces
- d) Indian Coast Guard

Solution: d.

- The Union Cabinet recently approved signing of a Memorandum of Understanding (MoU) between India and SACEP for cooperation on the response to Oil and Chemical Pollution in the South Asian Seas Region.
- **Indian Coast Guard (ICG)** will be the Competent National Authority and national operational contact point for implementation of “Regional Oil Spill Contingency Plan” under the MoU and shall respond to oil and chemical spills on behalf of Government of India. Further, ICG Maritime Rescue. Coordination Centres (MRCCs) will be the national emergency response centre for marine incidents.
- **About SACEP:** In order to promote and support protection, management and enhancement of the environment in the South Asian region, the Governments of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka (same as SAARC membership) established the SACEP in 1982 in Sri Lanka.
- The **SACEP** jointly with the International Maritime Organisation (**IMO**) developed a “**Regional Oil Spill Contingency Plan**” to facilitate international co-operation and mutual assistance in preparing and responding to a major oil pollution incident in the seas around the Maritime States of Bangladesh, India, Maldives, Pakistan and Sri Lanka.

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178177;>

3. Which among the following water bodies can one traverse at a time to enter Israel from Egypt?

1. Mediterranean Sea
2. Gulf of Suez
3. Gulf of Eilat
4. Gulf of Sidra

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 3 and 4 only

Solution: b.



Gulf of Aqaba is also known as Gulf of Eilat.

Improvisation: <http://www.thehindu.com/news/international/israel-cancels-plan-to-deport-migrants/article23416764.ece>;

4. The 'CLOUD Act', recently signed by the US President, is related to
- Cross-border data sharing
 - Defence partnerships
 - Intellectual Property Rights
 - Work Visas

Solution: a.

- Two weeks ago, U.S. President Donald Trump signed the Clarifying Lawful Overseas Use of Data Act (CLOUD Act), which will enable the U.S. government to enter into agreements with like-minded states for cross-border data sharing.
- This will allow law enforcement agencies from these states to directly obtain electronic data, held by communication service providers headquartered in the U.S., to combat crime.
- New Delhi, on the back of this development, will soon push for an India-U.S. data sharing agreement to serve the interests of its law enforcement and, more importantly, to make headway in the global cyber norms conversation.

<http://www.thehindu.com/opinion/op-ed/sharing-data-across-borders/article23417587.ece>;

5. Saudi Arabia opened its airspace for the first time to a commercial flight to Israel last month. It also marked the airline's maiden flight to Israel. Which country's airline was it?
- China
 - Russia
 - Australia
 - None of the above

Solution: d.

March 23rd: "Air India's maiden flight to Israel has landed in Tel Aviv, reducing the travel time substantially after Saudi Arabia for the first time allowed a commercial flight to use its airspace, indicating a thaw in relations between the Arab kingdom and the Jewish state... Heralding a new beginning in the people-to-people contact and diplomatic ties between India and Israel, the state-run Air India introduced the direct thrice-a-week flight from New Delhi to Tel Aviv yesterday... Saudi Arabia permitted the airline to use its airspace, enabling it to take a shorter route, covering the distance in 7.25 hours, about 2.10 hours less as compared to the only other airline that flies between the two countries — Israel's national carrier El Al."

Improvisation: <http://www.thehindu.com/news/international/israelis-have-the-right-to-their-own-land/article23427625.ece>;

THB;

6. The Government of India's 'Operation Insaniyat', recently in the news, is a response to a humanitarian crisis being faced by
- Bangladesh
 - Yemen
 - Syria
 - Afghanistan

Solution: a.

From 2017: In response to the humanitarian crisis being faced on account of the large influx of refugees into Bangladesh, Government of India has decided to extend assistance to Bangladesh. The relief material consists of items required urgently by the affected people, namely rice, pulses, sugar, salt, cooking oil, tea, ready to eat noodles, biscuits, mosquito nets etc.

In the news: <http://www.thehindu.com/news/national/india-extends-support-to-bangladesh-for-resolving-rohingya-crisis/article23484259.ece>;

7. 'Formosa Strait' separates
- Cuba from USA
 - Spain from Morocco
 - China from Taiwan
 - Australia from New Zealand

Solution: c.

Taiwan Strait, also called **Formosa Strait**, lies between the coast of China's Fukien province and the island of Taiwan (Formosa). The strait extends from southwest to northeast between the South and East China seas.

<http://www.thehindu.com/news/international/china-announces-taiwan-strait-live-fire-drills-amid-tensions/article23512998.ece>;

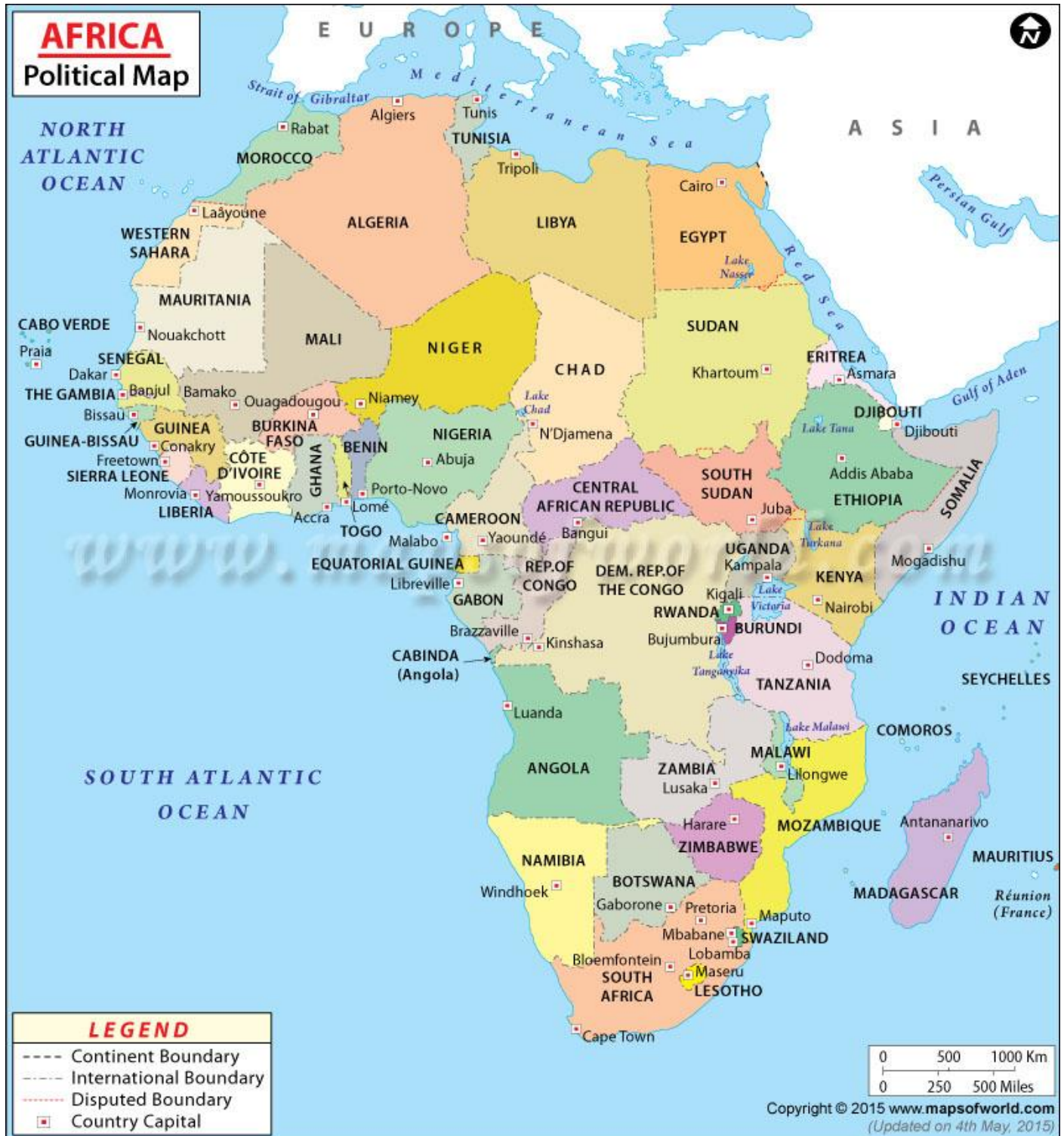


8. Which among the following countries open out to the oceans ?
- Equatorial Guinea
 - Zambia
 - Swaziland

Select the correct answer using the code given below:

- 1 only
- 2 and 3 only
- 3 only
- 1, 2 and 3

Solution: a.



<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178530>

9. The recent India-China Strategic Economic Dialogue was held between

- a) Ministry of Planning and China's National Planning Council
- b) National Security Advisor and China's Central Foreign Affairs Commission Director
- c) NITI Aayog and China's National Development and Reform Commission
- d) Ministry of Commerce and Industry and China's Ministry of Commerce

Solution: c.

China's top planning body is the National Development and Reform Commission.

[TH1](#); [TH2](#); [TH3](#);

10. Which one of the following countries was **NOT** a participant in the first Indo-Nordic Summit held at Stockholm, Sweden ?

- a) Iceland
- b) Netherlands
- c) Denmark
- d) Finland

Solution: b.

ET: "The **first Indo-Nordic Summit** will focus on promoting a rules-based international order in the backdrop of China's attempts to dominate sea lanes of communication that might impact global free trade. The five Nordic countries are Sweden, Norway, Finland, Denmark and Iceland..."

[PIB1](#); [PIB2](#);



11. “Towards a Common Future”, the “Blue Charter on Ocean Governance” and a “Connectivity Agenda for Trade and Investment”, phrases recently in the news, are all associated with
- ASEAN+6
 - The Commonwealth
 - European Union
 - Antarctic Treaty System

Solution: b.

“Given the expectations, the outcome of the meet was underwhelming. It was announced Prince Charles would ‘succeed’ his mother as the head of the Commonwealth, ignoring calls for the position to be more democratically shared or rotated. There were substantive statements on the **Blue Charter on Ocean Governance** and on the **Commonwealth Connectivity Agenda for Trade and Investment**, which could together counter China’s Belt and Road Initiative. But there was little by way of a road map to achieve the goals..”

[TH](#); [Commonwealth](#);

12. ‘Red Corner Notices’, sometimes seen in the news, can be issued by
- IUCN
 - INTERPOL
 - Financial Action Task Force
 - Any member country of the United Nations General Assembly

Solution: b.

What is the purpose of an INTERPOL Red Notice?

- A Red Notice is a request to locate and provisionally arrest an individual pending extradition. It is issued by the General Secretariat at the request of a member country or an international tribunal based on a valid national arrest warrant. It is not an international arrest warrant.
- INTERPOL cannot compel any member country to arrest an individual who is the subject of a Red Notice. Each member country decides for itself what legal value to give a Red Notice within their borders.

[INTERPOL: Red Notice](#); [Types of Notices](#); Additional Information: [About INTERPOL](#);

Improvisation: [TH](#): “A Senior advocate, for a petitioner, objected to how the order (related to Family Welfare Committees) bars the issuance of Red Corner Notice..”

13. India may attract U.S. sanctions under the latter’s CAATS Act (CAATSA) if
- It signs a medium multi-role combat aircraft deal with Russia
 - It files a case citing discrimination with the WTO if the U.S. did not grant exemptions from higher tariffs on steel and aluminium
 - It does not strengthen its Intellectual Property Rights regime along the lines of TRIPS Plus provisions
 - The US Department of Commerce believes India is not doing enough to address the India-US trade imbalance

Solution: a.

- Under the new U.S. legislation, CAATSA (Countering America's Adversaries Through Sanctions Act), the U.S. can impose sanctions on any company which engages with Russia in the defence or energy sector.
- The law (signed by the President of USA in 2017), among other things, imposed new sanctions on Iran, Russia and North Korea.

<http://www.thehindu.com/opinion/lead/the-dragon-beckons-again/article23662063.ece;>

14. Which one of the following countries is neither a member nor an observer state of the Shanghai Cooperation Organisation ?

- Mongolia
- Iran
- Pakistan
- Turkmenistan

Solution: d.

- The **SCO** comprises **eight member states**, namely the Republic of **India**, the Republic of **Kazakhstan**, the People's Republic of **China**, the **Kyrgyz** Republic, the Islamic Republic of **Pakistan**, the **Russian** Federation, the Republic of **Tajikistan**, and the Republic of **Uzbekistan**;
- The SCO counts four observer states, namely the Islamic Republic of Afghanistan, the Republic of Belarus, the Islamic Republic of **Iran** and the Republic of **Mongolia**;
- The SCO has six dialogue partners, namely the Republic of Azerbaijan, the Republic of Armenia, the Kingdom of Cambodia, the Federal Democratic Republic of Nepal, the Republic of Turkey, and the Democratic Socialist Republic of Sri Lanka.

[http://eng.sectesco.org/about_sco/;](http://eng.sectesco.org/about_sco/) <http://pib.nic.in/PressReleaselframePage.aspx?PRID=1530036;>

15. Consider the following themes:

- Mass Rapid Transport Systems
- Coastal Infrastructure
- Urban Development: Technological Solutions and Governance Challenges

Regional conferences on these themes have recently been organised in India as lead-up events to the annual meeting in Mumbai of

- The World Economic Forum
- UN Habitat
- Asian Infrastructure Investment Bank
- Asian Development Bank

Solution: c.

- Options 'a' and 'b' can be eliminated – the annual meeting of WEF always takes place at Davos, Switzerland while **UN Habitat meets once every twenty years**, the most recent meeting of which took place in 2016.

- A two day Regional Conference on “**Urban Development: Technological Solutions and Governance Challenges**” **concluded** in Ahmedabad, Gujarat recently. The Conference was the third lead-up event to the **3rd Annual Meeting** of AIB scheduled to be held on 25th and 26th June, 2018 in Mumbai. Before this Conference, two Regional Conferences have already been held at Kolkata and Visakhapatnam on the themes of Mass Rapid Transport Systems and Port and Coastal Infrastructure respectively. In total, eight such Regional Conferences will be held on different themes at different places in the country.

[http://pib.nic.in/PressReleaseIframePage.aspx?PRID=1529745;](http://pib.nic.in/PressReleaseIframePage.aspx?PRID=1529745)

16. The “Special 301” report, an annual review of the global state of intellectual property rights (IPR) protection and enforcement, is published by the
- World Intellectual Property Organisation
 - World Trade Organisation
 - U.S. Department of State
 - Office of the U.S. Trade Representative

Solution: d.

In the news ([TH](#)): The Office of the U.S. Trade Representative has once again placed India on ‘Priority Watch List’ in its annual Special 301 Report on the state of intellectual property protection.. The report comes at a time when the United States Patent and Trademark Office (USPTO) has demanded the elimination of ‘Form 27’ — a statutory requirement unique to India’s patent law that mandates patent holders to declare how a monopoly is being exercised in the country.. The report called India’s implementation of the patent act as restrictive.

[USTR: Special 301](#): The “Special 301” Report reflects the outcome of a Congressionally-mandated annual review of the global state of intellectual property rights (IPR) protection and enforcement. The review reflects the Administration’s resolve to encourage and maintain enabling environments for innovation, including effective IPR protection and enforcement, in markets worldwide, which benefit not only U.S. exporters but the domestic IP-intensive industries in those markets as well. The Report identifies a wide range of concerns that limit innovation and investment..

17. The WHO’s ‘One Health’ approach is particularly relevant for
- Food safety
 - Control of diseases that can spread between animals and humans
 - Combating lifestyle diseases

Select the correct answer using the code given below:

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Solution: a.

- The One Health concept ([CDC](#)) recognises that the health of people is connected to the health of animals and the environment. The goal of One Health is to encourage the collaborative efforts of multiple disciplines-working locally, nationally, and globally-to achieve the best health for people, animals, and our environment.

- The areas of work in which a One Health approach ([WHO](#)) is particularly relevant include food safety, the control of zoonoses (diseases that can spread between animals and humans, such as flu, rabies and Rift Valley Fever), and combatting antibiotic resistance (when bacteria change after being exposed to antibiotics and become more difficult to treat).
- One of the objectives of India's National Action Plan on Anti-Microbial Resistance (NAP-AMR) is to "Define the strategic priorities, key actions, outputs, responsibilities, and indicative timeline and budget to slow the emergence of AMR in India and strengthen the organisational & management structures to ensure intra- & inter-sectoral coordination with a One Health approach.."

Improvisation (reference to India's NAP-AMR): [TH](#);

Image Source: [World Organisation for Animal Health](#);

VI. POLITY

1. Consider the following statements:

1. The head of any constitutional body can be removed only by the authority that appoints him/her
2. An impeachment motion for the removal of a judge does not lapse on the dissolution of the Lok Sabha

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

Solution: b.

- **Statement 1**, improvisation: "...after the Second Judges case, today the power to appoint judges of the higher judiciary vests in the apex court. Removal being directly connected to appointment, it is only logical that the first filter in the process vest with the judiciary..."
- The chairman of a State Public Service Commission is **appointed by the Governor** but can be removed only by the **President**. Therefore, statement 1 is wrong.
- **Statement 2** is correct (refer last page of chapter Supreme Court in Indian Polity by M Laxmikanth).

Source/improvisation: [TH](#);

2. It is important to guarantee the independence of the Supreme Court so that it can effectively discharge its role as

1. A federal court
2. The highest court of appeal
3. The guarantor of the fundamental rights of citizens
4. The guardian of the Constitution

Select the correct answer using the code given below:

- a) 1, 3 and 4 only
- b) 1 and 2 only
- c) 3 and 4 only
- d) 1, 2, 3 and 4

Solution: d.

Statements are self-explanatory.

Indian Polity by M Laxmikanth;

Improvisation: [TH](#);

3. As per the Presidential Order made by the President, the 15th Finance Commission may consider proposing measurable performance-based incentives for States in which of the following areas?
1. Efforts made by the States in moving towards replacement rate of population growth
 2. Progress made in promoting ease of doing business
 3. Control in incurring expenditure on populist measures
 4. Efforts made in expansion and deepening of tax net under GST

Select the correct answer using the code given below:

- a) 1, 2 and 3 only
- b) 2, 3 and 4 only
- c) 4 only
- d) 1, 2, 3 and 4

Solution: d.

7. The Commission may consider proposing measurable performance-based incentives for States, at the appropriate level of government, in following areas:

- (i) Efforts made by the States in expansion and deepening of tax net under GST;
- (ii) Efforts and Progress made in moving towards replacement rate of population growth ;
- (iii) Achievements in implementation of flagship schemes of Government of India, disaster resilient infrastructure, sustainable development goals, and quality of expenditure;
- (iv) Progress made in increasing capital expenditure, eliminating losses of power sector, and improving the quality of such expenditure in generating future income streams;
- (v) Progress made in increasing tax/non-tax revenues, promoting savings by adoption of Direct Benefit Transfers and Public Finance Management System, promoting digital economy and removing layers between the government and the beneficiaries;
- (vi) Progress made in promoting ease of doing business by effecting related policy and regulatory changes and promoting labour intensive growth;
- (vii) Provision of grants in aid to local bodies for basic services, including quality human resources, and implementation of performance grant system in improving delivery of services;
- (viii) Control or lack of it in incurring expenditure on populist measures; and
- (ix) Progress made in sanitation, solid waste management and bringing in behavioural change to end open defecation.

- Frequently appearing in the news – the issue associated with the 15th FC's terms of reference which mandates it to use Census 2011 data as the basis to make its recommendations.

15th FC ToR: <http://www.egazette.nic.in/WriteReadData/2017/180483.pdf>;

Improvisation: <http://www.thehindu.com/todays-paper/tp-national/finance-panel-gets-long-wish-list/article23409839.ece>;

4. Consider the following statements:

1. India can be classified as a “holding together” as opposed to a “coming together” federation
2. The Parliament can redraw the political map of India according to its will

Which of the following statements is/are correct ?

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

Solution: c.

- On November 4, 1948, while moving the Draft Constitution in the Constituent Assembly, B.R. Ambedkar responded to the question as to why India is a “Union” and not a “Federation of States”: “The Drafting Committee wanted to make it clear that though India was to be a federation, the federation was not the result of an agreement by the States to join in a federation and that the federation not being the result of an agreement no State has the right to secede from it. The Federation is a Union because it is indestructible.” Hence, political scientist Alfred Stepan classified India as a “holding together” as opposed to a “coming together” federation. Unlike the federal form of government in the United States, which is described as an indestructible union composed of indestructible States, India is an indestructible union of destructible States.
- The Constitution authorises the Parliament to form new states or alter the areas, boundaries or names of the existing states without their consent. In other words, the Parliament can redraw the political map of India according to its will. Hence, the territorial integrity or continued existence of any state is not guaranteed by the Constitution.

<http://www.thehindu.com/opinion/op-ed/federalism-and-fairness/article23417843.ece>;

Indian Polity by M Laxmikanth;

5. ‘Forests’, under the Seventh Schedule, is on the

- a) Union List
- b) State List
- c) Concurrent List
- d) Residuary List

Solution: c.

Prevention of cruelty to animals, Forests and Protection of wild animals and birds are subjects in the concurrent list.

Seventh Schedule: <https://www.mea.gov.in/Images/pdf1/S7.pdf>;

Improvisation: <http://www.thehindu.com/opinion/op-ed/anti-forest-anti-forest-dweller/article23437396.ece>;

6. Consider the following pairs:

Provision in Representation of the People Act, 1951 – Description

1. 29A – Registration with the Election Commission of associations and bodies as political parties
2. 29C – Mandatory reporting to the EC of funds accrued to a party by way of electoral bonds
3. 33(7) – Allowing candidates to contest from two constituencies at a time

Which of the descriptions given above correctly relate to the sections of the Act?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Solution: c.

TH: The apex court had, on March 26, asked how convicted persons, who are barred from electoral politics, could decide on candidates for polls and ensure the maintenance of probity in public life. The apex court had posted the matter to May 3 for final disposal.. The top court had, on December 1 last year, sought the response of the Centre and the EC on the PIL and agreed to examine the constitutional validity of section 29A, RPA, which deals with the power of the poll panel to register a political party.

Livemint: In May last year, the election commission had told a parliamentary committee that electoral bonds introduced by the government is a “retrograde” step.. The commission, in a written submission to the parliamentary standing committee on law and personnel, had said changes made in the election laws after the introduction of the bonds would compromise transparency in political funding.. “The amendment in section 29 C of the Representation of the People Act, 1951 making it no longer necessary to report details of donations received through electoral bonds is a retrograde step as transparency of political funding would be compromised as a result of the change,” it had said.

TH: A Bench led by Chief Justice of India Dipak Misra was hearing a petition filed by advocate Ashwini Upadhyay seeking a declaration striking down Section 33(7) of the Representation of the People Act of 1951, which allows candidates to contest from two constituencies at a time, as invalid and unconstitutional. The EC informed the court that it had proposed the amendment of Section 33(7) way back in July 2004. It was one of the 22 “urgent electoral reforms” the EC had suggested to a Rajya Sabha Parliamentary Standing Committee. It had pointed out that there had been cases of a person contesting from two constituencies and winning from both. “The consequence is that a by-election would be required from one constituency, involving avoidable labour and expenditure...”

7. Ultimately, ensuring that order is brought to the Lower House in order for it to function effectively is the responsibility of

- a) The Speaker
- b) The Council of Ministers headed by the Prime Minister
- c) The Minister of Parliamentary Affairs
- d) Party whips

Solution: a.

“Given the membership of the Lok Sabha, it is evident that this government enjoys a comfortable majority. That said, this position still needs to be tested if questioned. Parliamentary democracy works because there is a broadly held belief in the fair and just exercise of power by the state. The inability of Parliament to function and to test the support

for the government undermines the very basis of our democratic structure. The Speaker has the responsibility of ensuring that the House functions and taking whatever steps are necessary — including suspension of members, if needed – to ensure order and check whether there is requisite support to admit the debate on the no-confidence motion.”

<http://www.thehindu.com/opinion/op-ed/confidence-in-the-house/article23437310.ece>;

8. In which among the following cases did the Supreme Court first introduce the American expression ‘due process of law’ to Indian jurisprudence?
- A.K. Gopalan v. State of Madras* (1950)
 - Maneka Gandhi v. Union of India* (1978)
 - Mohd. Ahmed Khan v. Shah Bano* (1985)
 - K.S. Puttaswamy v. Union of India* (2017)

Solution: b.

In the famous **Gopalan case (1950)**, the Supreme Court had taken a narrow interpretation of the Article 21. It held that the protection under Article 21 is available only against arbitrary executive action and not from arbitrary legislative action. This means that the State can deprive the right to life and personal liberty of a person based on a law. This is because of the expression ‘procedure established by law’ in Article 21, which is different from the expression ‘due process of law’ contained in the American Constitution.

But, in **Menaka case (1978)**, the Supreme Court overruled its judgement in the Gopalan case by taking a wider interpretation of the Article 21. Therefore, it ruled that the right to life and personal liberty of a person can be deprived by a law provided the procedure prescribed by that law is reasonable, fair and just. In other words, it has introduced the American expression ‘due process of law’.

Indian Polity by M Laxmikanth;

Source/Improvisation: <http://www.thehindu.com/opinion/op-ed/a-case-to-withdraw-the-triple-talag-bill/article23474331.ece>;

9. What were the changes introduced by the 2015 amendment to the Scheduled Castes and Scheduled Tribes (Prevention of Atrocities) Act, 1989 ?
- More instances of atrocities have been recognised as crimes against SCs and STs
 - Action against those government servants can be taken who are found to be negligent in implementing the Act
 - Establishment of exclusive special courts to enable speedy disposal of cases
 - It allows an accused person to apply for anticipatory bail

Select the correct answer using the code given below:

- 1, 2 and 3 only
- 1 only
- 2 and 3 only
- 1, 2, 3 and 4

Solution: a.

Changes introduced:

- Addition of certain IPC offences that attract punishment of less than 10 years and committed against members of Scheduled Caste/Scheduled Tribe, as offences punishable under the PoA Act. Presently (in the original act), only those offences listed in IPC as attracting punishment of 10 years or more and committed on members of Scheduled Caste/Scheduled Tribe are accepted as offences falling under the PoA Act.
- Establishment of Exclusive Special Courts and specification of Exclusive Special Public Prosecutors also, to exclusively try the offences under the PoA Act to enable speedy and expeditious disposal of cases.
- Power of Special Courts and Exclusive Special Courts, to take direct cognizance of offence.
- Addition of chapter on the 'Rights of Victims and Witnesses'. It introduces the provision of witness protection.
- Defining clearly the term 'wilful negligence' of public servants at all levels, starting from the registration of complaint, and covering aspects of dereliction of duty under this Act.
- Addition of presumption to the offences –If the accused was acquainted with the victim or his family, the court will presume that the accused was aware of the caste or tribal identity of the victim unless proved otherwise.

<http://www.thehindu.com/todays-paper/tp-opinion/expanding-the-scst-act/article23448695.ece>;

Last paragraph: <http://www.thehindu.com/news/national/rajnath-singh-appeals-for-peace-harmony/article23428327.ece>;

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=135764>;

10. At present, the Supreme Court consists of thirty-one judges. What is the procedure to increase the number of judges ?
- a) Collegium recommendation
 - b) Executive action
 - c) Parliamentary legislation
 - d) Constitutional amendment

Solution: c.

- In February 2009, the centre notified an increase in the number of Supreme Court judges from twenty-six to thirty-one, including the Chief Justice of India.
- This followed the enactment of the Supreme Court (Number of Judges) Amendment Act, 2008.
- Originally, the strength of the Supreme Court was fixed at eight (one chief justice and seven other judges).
- The Parliament has increased this number of other judges progressively to ten in 1956, to thirteen in 1960, to seventeen in 1977 and to twenty-five in 1986.

Indian Polity by M Laxmikanth;

Improvisation: <http://www.thehindu.com/news/national/justice-kurian-joseph-writes-to-cji-dipak-misra-on-appointment-of-sc-judges/article23515086.ece>;

11. Which of the following statements about the Bar Council of India is/are correct ?
1. It is a statutory body
 2. It sets standards for legal education and grants recognition to universities/law colleges
 3. It provides financial assistance to organizes welfare schemes for its members

Select the correct answer using the code given below:

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Solution: d.

- The **Bar Council of India (BCI)** is a **statutory body** created by Parliament to regulate and represent the Indian bar (It was established under the **Advocates Act, 1961**).
- It prescribes standards of professional conduct and etiquette and exercises disciplinary jurisdiction over the bar.
- It also sets standards for legal education and grants recognition to Universities whose degree in law will serve as qualification for enrolment as an advocate.
- In addition, the bar council performs certain representative functions by protecting the rights, privileges and interests of advocates and through the creation of funds for providing financial assistance to organise welfare schemes for them.

Improvisation: BCI often in the news; most recently – <http://www.thehindu.com/news/national/kathua-rape-murder-mufti-accepts-resignations-of-bjp-ministers-present-at-rally/article23548880.ece>;

12. As per the Lokpal and Lokayuktas Act, 2013 the “eminent jurist” to be appointed by the President to the Selection Committee will be based on the recommendation of panel consisting of
- a) The Prime Minister, Central Vigilance Commissioner and Leader of the Opposition in Lok Sabha (LoP)
 - b) The PM, Chief Justice of India, Speaker of Lok Sabha and LoP
 - c) The CJI and four senior-most Supreme Court judges
 - d) Leaders and LoPs of both Houses of the Parliament

Solution: b.

The selection of the Chairperson and the members of Lokpal shall be through a Selection Committee consisting of the PM, Speaker, LoP, the CJI or a sitting SC Judge nominated by the CJI and an eminent jurist to be nominated by the President on the basis of recommendations of the first four members of the Selection Committee.

<http://www.thehindu.com/news/national/lokpai-process-to-appoint-eminent-jurist-underway-centre-tells-sc/article23569688.ece>; Indian Polity by M Laxmikanth (5th Edition);

21. Key recommendations of the Law Commission in its draft white paper favouring simultaneous elections include:
1. Election of the PM by the entire Lok Sabha like the Speaker
 2. The central government to get the constitutional amendments facilitating simultaneous polls ratified by all the states
 3. Relaxing certain provisions of the anti-defection law

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) 1, 2 and 3

Solution: d.

Key recommendations:

- Simultaneous elections may be restored in the nation by amending the Constitution, Representation of the People Act of 1951 and the Rules of Procedure of the Lok Sabha and Assemblies.
- Citing no-confidence motion and premature dissolution of House as major roadblocks to simultaneous elections, the commission says the parties which introduce the no-confidence motion should simultaneously give a suggestion for an alternative government.
- It even suggests the relaxation of the “rigours” of the anti-defection law in the Tenth Schedule to prevent a stalemate in the Lok Sabha or Assemblies in case of a hung Parliament or Assembly.
- The commission says the Centre should get the Constitutional amendments, if agreed upon, to be ratified by all the States so as to avoid any challenge to them.
- The panel says that in case of mid-term elections, the new Lok Sabha or Assembly would only serve the remainder of the term of the previous Lok Sabha/Assembly and not a fresh term of five years.

<http://www.thehindu.com/news/national/law-commission-favours-simultaneous-elections/article23578062.ece;>

22. Section 12(1)(c) of the Right to Education Act mandates/provides for

- a) Private unaided schools to reserve 25% of seats for children from economically weaker sections
- b) The no-detention policy
- c) Appointment of appropriately trained teachers
- d) The norms and standards relating to pupil-teacher ratios

Solution: a.

“Five States (Goa, Manipur, Mizoram, Sikkim and Telangana) have not even issued notifications regarding admissions under the RTE. Section 12(1)(c) of the Act mandates private unaided schools to reserve 25% of seats for children from economically weaker sections (EWS), in the age bracket of six to 14 years. This enabled economically marginalised communities to access high quality private schools, at the expense of the State. While Telangana may be excused due to its recent formation, it is unjustifiable that the other States have failed to undertake the most basic steps to implement Section 12(1)(c) of an Act passed eight years ago.”

<http://www.thehindu.com/todays-paper/tp-opinion/marginalised-from-school/article23608647.ece;>

23. Consider the following statements with reference to the process of removal of judges:

1. If a motion for the removal of a judge of the Supreme Court (SC) is admitted, a 3-member investigation committee comprising of a judge of the SC, Chief Justice of a High Court, and a distinguished jurist shall be set up by the Speaker/Chairman
2. The process of removal of a judge of the SC and of a High Court is a judicial power of the Parliament

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

Solution: c.

Both statements are correct. With reference to Statement 2, we are going by M Laxmikanth's Indian Polity.

However, former Chief Justice of India R.M. Lodha has, according to [THIS TH report](#), opined that "the decision by the Rajya Sabha Chairman to refuse the impeachment motion would be judicially reviewable. His decision is open to judicial scrutiny... impeachment is a legislative process where a decision thereon is amenable to judicial scrutiny.. the Chairman's decision is not protected by parliamentary privilege.."

The long road to impeachment

Article 124(4) of the Constitution says a Judge of the Supreme Court can be removed only by impeachment for 'proven misbehaviour or incapacity'

- Chairman and Vice-President M Venkalah Naidu may admit the motion or reject it
- If admitted, he has to form a three-member investigation committee, comprising a judge of the Supreme Court, Chief Justice of a high court, and a distinguished jurist
- The committee will frame charges, obtain a written statement

Now that the motion has been submitted, what happens next?

- from the judge in his defence, and give an opportunity to the judge to adduce evidence or cross-examine witnesses
- The committee will submit a report to the Chairman. If it contains a finding that the judge is not guilty, there shall be no further action
- If the committee finds the judge guilty of one or more charges,



Congress leaders Ghulam Nabi Azad, Kapil Sibal, CPI's D Raja and KTS Tulsi at a presser after filing the notice •PTI

It (impeachment motion) is a revenge petition after the falsehood of the Congress has been established in the Justice Loya death case. **ARUN JAITLEY**, Finance Minister

He said this in a Facebook post titled 'Judge Loya Death Case - The One That Almost Created a Judicial Mutiny'

There is no impeachment motion moved as far as I am aware of. I don't know. I am sorry. I can't comment. Till yesterday we had not moved any impeachment motion

PRAKASH KARAT, CPI-M leader

We all are very disturbed about it

A K SIKRI & ASHOK BHUSHAN, **BJP**

As representatives of the people, we are entitled to hold the chief justice accountable

KAPIL SIBAL, Congress leader

24. A Public Interest Litigation

1. Is intended to enforce the right of one individual against another
2. Is essentially a cooperative effort on the part of the petitioner to secure observance of legal rights conferred upon the vulnerable sections of the community

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: b.

- PIL is brought before the Court not for the purpose of **enforcing the right of one individual against another** as happens in the case of ordinary litigation, but it is intended to promote and vindicate public interest.
- PIL is essentially a cooperative effort on the part of the petitioner, the State or Public Authority, and the Court to secure observance of the Constitutional or legal rights, benefits and privileges conferred upon the vulnerable sections of the community and to reach social justice to them.

Chapter PIL, Indian Polity 5th Edition by M Laxmikanth;

25. Which among the following bodies is/are constitutional bodies ?

1. Special Officer for Linguistic Minorities
2. National Commission for Minorities
3. National Human Rights Commission

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Solution: a.

The NHRC has been established under the Protection of Human Rights Act, 1993 while the NCM under National Commission for Minorities Act, 1992.

Indian Polity by M Laxmikanth; Improvisation: [TH](#);

26. Which among the following communities was the latest to be notified as a “national minority” ?

- a) Lingayats
- b) Buddhists
- c) Jains
- d) Parsis

Solution: c.

From 2014 (PIB): The **Cabinet** approved the inclusion of Jains in the list of notified minority communities under Section 2(c) of the National Commission for Minorities Act, 1992 in addition to the five communities already notified as

minorities under the same section. These communities are **Muslims, Christians, Buddhists, Sikhs and Zoroastrians (Parsis)**.

Additional Information: Maharashtra and West Bengal are the only states in India to have granted the **Jewish communities** minority status. Improvisation: [TH](#);

27. Part IX, 'The Panchayats', of the Indian Constitution **does not** apply to the state/s of

1. Arunachal Pradesh
2. Nagaland
3. Mizoram
4. Meghalaya

Select the correct answer using the code given below:

- a) 1 only
- b) 2, 3 and 4
- c) 4 only
- d) 1, 2 and 3

Solution: b.

[Article 243M](#): (2) Nothing in this Part shall apply to

- the States of Nagaland, Meghalaya and Mizoram;
- the Hill areas in the State of Manipur for which District Councils exist under any law for the time being in force.

Refer tables: 'Articles related to Panchayats', and 'Name and Number of Panchayats', Chapter Panchayati Raj; Indian Polity by M Laxmikanth; Improvisation: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=178826>;

28. The Central Government recently withdrew the Armed Forces Special Powers Act (AFSPA) from some districts in North-East India. In this context, consider the following statements:

1. These districts are mainly areas that border Assam
2. These districts are only from the states of Meghalaya and Tripura
3. Meghalaya has never been witness to any insurgency from within

Which of the statements given above is/are correct ?

- a) 1 only
- b) 1 and 3 only
- c) 2 only
- d) 1, 2 and 3

Solution: a.

In 2015, the Tripura government had lifted AFSPA from the state after 18 years.

- With insurgency-related incidents in the northeast region down by 85% from the levels recorded at the peak of militancy two decades ago, the Centre has withdrawn AFSPA totally from Meghalaya as well as from eight out of 16 police stations in Arunachal Pradesh, with effect from March 31, 2018.

- AFSPA, which gives special powers and immunity to the armed forces deployed in areas declared “disturbed” under the Act, had been in force in Meghalaya and Arunachal Pradesh for almost 27 years.
- Areas of the two states bordering Assam were declared “disturbed” in 1991 to avoid a spillover effect of insurgency by Assam-based outfits like the United Liberation Front of Asom (Ulfa).

Justification for statement 3: [Insurgency in Meghalaya \(IDSA\)](#); [Tol](#); [TH](#);

29. The Supreme Court last year ordered the setting up of Family Welfare Committees in all districts under the aegis of the National Legal Services Authority to ascertain the veracity of allegations made under Section 498A of IPC. Members of such committees can be

1. Para-legal volunteers
2. Social workers
3. Retired persons
4. Wives of working officers

Select the correct answer using the code given below:

- a) 1 only
- b) 2, 3 and 4 only
- c) 1, 2, 3 and 4
- d) None of the above

Solution: c.

Other ‘upstanding citizens’ too can be appointed members of such committees.

[2017 IE](#): The Supreme Court had ordered a slew of safeguards, including “involvement of civil society and sensitisation of investigation officers and magistrates”, to prevent widespread misuse of dowry prohibition provision under Indian Penal Code’s Section 498A.

It said that “in respect of persons ordinarily residing out of India impounding of passports or issuance of Red Corner Notice should not be a routine”.

The court said personal appearance of all family members and particularly outstation ones may not be required for trial. It added a trial court ought to grant them exemption from personal appearance or permit appearance by video conferencing. It made it clear that these directions will not apply in offenses in where there is tangible physical injury or death.

[TH 2017](#); Improvisation: [TH](#);

30. Which one of the following provisions was **NOT** made by the 91st Constitutional Amendment Act, 2003 ?

- a) Limiting the size of council of ministers
- b) Debating defectors (as defined in the anti-defection law) from holding public offices
- c) Strengthening the anti-defection law
- d) None of the above

Solution: d.

Made the following provisions to limit the size of Council of Ministers, to debar defectors from holding public offices, and to strengthen the anti-defection law:

1. The total number of ministers, including the Prime Minister, in the Central Council of Ministers shall not exceed 15% of the total strength of the Lok Sabha (Article 75(1A)).
2. A member of either house of Parliament belonging to any political party who is disqualified on the ground of defection shall also be disqualified to be appointed as a minister (Article 75(1B)).
3. The total number of ministers, including the Chief Minister, in the Council of Ministers in a state shall not exceed 15% of the total strength of the legislative Assembly of that state. But, the number of ministers, including the Chief Minister, in a state shall not be less than 12 (Article 164(1A)).
4. A member of either House of a state legislature belonging to any political party who is disqualified on the ground of defection shall also be disqualified to be appointed as a minister (Article 164(1B)).
5. A member of either House of Parliament or either House of a State Legislature belonging to any political party who is disqualified on the ground of defection shall also be disqualified to hold any remunerative political post. The expression “remunerative political post” means (i) any office under the central government or a state government where the salary or remuneration for such office is paid out of the public revenue of the concerned government; or (ii) any office under a body, whether incorporated or not, which is wholly or partially owned by the central government or a state government and the salary or remuneration for such office is paid by such body, except where such salary or remuneration paid is compensatory in nature (Article 361-B).
6. The provision of the Tenth Schedule (anti-defection law) pertaining to exemption from disqualification in case of split by one-third members of legislature party has been deleted. It means that the defectors have no more protection on grounds of splits.

VII. HISTORY & ART AND CULTURE

1. Which among the following is **NOT** inscribed on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity?
- Mudiyettu
 - Kutiyattam
 - Kuthiyottam
 - Kumbh Mela

Solution: c.

- The **Kuthiyottam ritual** ([In the news](#)): It is usually performed every year during the Pongala festival (Pongala, which means 'to boil over', is a ritual in which women prepare a pudding made from rice, jaggery, coconut and plantains cooked together, and offer it to the goddess. The ritual can only be performed by women, and the streets of the city are known to be jam packed with devotees during the festival) at the Attukal Bhagavathy Temple in Thiruvananthapuram, Kerala. Nearly 1,000 young boys undertake a seven-day penance before Pongala day. These boys are said to represent the wounded soldiers of the goddess. The boys have to observe strict discipline and stay inside the temple for seven days. The rigours include sleeping on the floor, strict diet restrictions, and bathing three times a day. They also have to prostrate 1,008 times before the deity.
- The ritual also reportedly involves piercing the child's side with a small hook and knotting a thread through it to symbolise their bond with the Goddess.

Representative List of the Intangible Cultural Heritage of Humanity:

- Tradition of Vedic Chanting
- Ramlila, the traditional performance of the Ramayana
- Kutiyattam, Sanskrit theatre
- Ramman, religious festival and ritual theatre of the Garhwal Himalayas
- Mudiyettu, ritual theatre and dance drama of Kerala
- Kalbelia folk songs and dances of Rajasthan
- Chhau dance
- Buddhist chanting, recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region
- Sankirtana, ritual singing, drumming and dancing of Manipur
- Traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab
- Yoga
- Nawrouz/Navruz/Novruz
- Kumbh Mela

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=176981>;






2. With reference to UNESCO's 'Atlas of the World's Languages in Danger', which of the following statements is/are correct?
1. It classifies languages into one of three degrees of endangerment – definitely, severely and critically endangered
 2. Gondi, the language of the Gond people of India, is listed in this atlas
 3. The largest number of Indian languages in the atlas are spoken in the Himalayan region

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3
- c) 2 only
- d) 1 and 3

Solution: b.

- For each language, the Atlas provides its name, degree of endangerment (see below) and the country or countries where it is spoken.
- Gondi is in the 'vulnerable' category.
- The 'Himalayas' can be divided into the following sub-divisions – Kashmir Himalayas, Himachal and Uttaranchal Himalayas, Darjeeling Himalayas, Arunachal Himalayas and Eastern Hills and Mountains (they are known by different local names – ex: Patkai Bum, Naga Hills, Lushai Hills etc.) Hence statement 3 is correct (view map below).

Degree of endangerment	Intergenerational Language Transmission
safe	language is spoken by all generations; intergenerational transmission is uninterrupted >> not included in the Atlas
 vulnerable	most children speak the language, but it may be restricted to certain domains (e.g., home)
 definitely endangered	children no longer learn the language as mother tongue in the home
 severely endangered	language is spoken by grandparents and older generations; while the parent generation may understand it, they do not speak it to children or among themselves
 critically endangered	the youngest speakers are grandparents and older, and they speak the language partially and infrequently
 extinct	there are no speakers left >> included in the Atlas if presumably extinct since the 1950s



[UNESCO Atlas;](#)

Source/Improvisation: [http://www.thehindu.com/society/this-indian-language-can-be-written-by-only-100-people/article23384526.ece;](http://www.thehindu.com/society/this-indian-language-can-be-written-by-only-100-people/article23384526.ece)

3. Which of the following statements about Kamaladevi Chattopadhyay is/are true?

1. She persuaded Mahatma Gandhi to call upon women to march with him in the Indian Independence Movement
2. She set up one of the first national institutions to archive, protect, and promote Indian puppetry

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: c.

- Chattopadhyay's contributions to India were numerous. Though widely known for persuading Mahatma Gandhi to call upon women to march with him in the Indian Independence Movement in the early 20th century, she is also credited for reinvigorating the culture of **Indian handicrafts, handlooms, and theatre**, and for using **cooperative grassroots movements** to pave the way for a higher socioeconomic standard for Indian women around the country.
- Chattopadhyay had a career of 'firsts' – from being the **first woman to run for Legislative office** to setting up some of the first national institutions to archive, protect, and promote Indian dance, drama, art, puppetry, music, and handicrafts. She was also one of the few women of her time to propose that women's rights, religious freedoms, environmental justice, political independence, and civil rights are all interrelated movements.



<https://www.google.com/doodles/kamaladevi-chattopadhyays-115th-birthday;>

4. Consider the following statements about the Bishnoi sect:

1. Members of this sect follow certain tenets laid down by their founder from ancient India
2. The 'Angalwaltha movement' is associated with members of this community

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

Solution: b.

- The **Bishnoi sect** was started by **Guru Jambheshwar** of Bikaner in **Rajasthan** in the 15th century. He set down 29 tenets which direct the community to protect nature and animals as well as worship God. Killing animals and felling of trees are grave sins for the Bishnoi community.
- That the Bishnois can lay down their own lives to save trees and animals is no hyperbole. In 1730 AD, the king of Jodhpur ordered cutting down of khejri trees to build a palace for himself. The Bishnois consider these trees sacred, so they challenged the king. Amrita Devi, a Bishnoi woman, and her three daughters hugged the trees and the king's soldiers had to kill them. Hundreds of Bishnoi men, women and children were killed in this manner trying to save khejri trees (**'Angalwaltha' movement**). It was Amrita Devi who inspired the modern Chipko movement decades ago in what is now the state of Uttarakhand. The Bishnois are vegetarians. They don't cut trees even for fuel for which they use fallen branches and twigs. Their women raise orphaned calves as their own children and also suckle them.

<https://economictimes.indiatimes.com/magazines/panache/how-a-committed-and-inspired-bishnoi-community-did-salman-khan-in/articleshow/63625066.cms>;

Reference to Angalwaltha movement: <https://www.google.com/doodles/45th-anniversary-of-the-chipko-movement>;

5. Which present-day game is believed to have been developed from this ancient game known as 'Gyan Chaupar' ?
- Snakes and Ladders
 - Monopoly
 - Scrabble
 - Chess

Solution: a.

Explanation 1, [In the news \(TH\)](#): The Indian board game of Gyan Chaupar, from which Snakes and Ladders is believed to have been born, can be traced back to 5 BC. Instead of 100 squares, it has anything from 72 to 300. The board can be made either of cloth or paper, and contains hyper-textual references from Buddhist and Hindu teachings.

Explanation 2 ([Livemint](#)): **Gyan Chaupar, or the game of knowledge**, was invented in India as a didactic game where the stairs represented virtue and elevated you towards moksha, while the snakes of vices were impediments in the path. It reflected the common karmic themes of Hinduism, Buddhism and Jainism, but lost its spiritual significance on reaching the West where, retaining only its bare mechanics, it became Snakes and Ladders.

6. Consider the following pairs:

<i>Urdu phrases/slogans</i>	–	<i>Coined by</i>
1. <i>Inquilab Zindabad</i>	–	Muhammad Iqbal
2. <i>Saare Jahan Se Accha, Hindostan Hamara</i>	–	Hasrat Mohani
3. <i>Sarfaroshi Ki Tamanna Ab Hamare Dil Mein Hai</i>	–	Ramprasad Bismil

Which of the pairs given above is/are correctly matched ?

- 1 and 2 only
- 2 and 3 only
- 3 only
- 1, 2 and 3

Solution: c.

- ***Inquilab Zindabad*** (Long live the revolution) – Hasrat Mohani
- ***Saare Jahan Se Accha, Hindostan Hamara*** (Our India is unrivalled in the world) – Muhammad Iqbal
- ***Sarfaroshi Ki Tamanna Ab Hamare Dil Mein Hai*** (The desire for martyrdom burns in our hearts) – Ramprasad Bismil

<http://www.thehindu.com/todays-paper/tp-opinion/urdu-and-patriotism/article23664027.ece;>

VIII. STATES

1. 'Walong', recently in the news, is nearest to
- New Delhi
 - Islamabad
 - Beijing
 - Naypyidaw

Solution: d.

- Walong is located on the banks of River Lohit. It is the eastern-most town of India, and is situated around 50km from the India-China-Myanmar tri-junction. It is nearest to Naypyidaw from the given list of capital cities.

Improvisation: <http://www.thehindu.com/news/national/india-steps-up-vigil-at-walong-tri-junction/article23408702.ece>

2. On a map, Thimphu is nearest to
- Tawang
 - Gangtok
 - Dispur
 - Kathmandu

Solution: b.



<http://www.bbc.com/news/world-asia-43655391>;

3. The National Sports University Bill establishes a National Sports University located in
- Goa
 - Chhattisgarh
 - Manipur
 - Kerala

Solution: c.

The Bill establishes a National Sports University located in Manipur. It will promote sports education in the areas of: (i) sports sciences, (ii) sports technology, (iii) sports management, and (iv) sports coaching. It will function as a national training centre for select sports disciplines. It may also establish campuses and study centres in other parts of the country.

http://www.prsindia.org/uploads/media/Sports%20University%20Bill,%202017/Bill%20Summary_Sports%20University.pdf;

<http://www.thehindu.com/opinion/op-ed/still-on-the-starting-block/article23516858.ece>;

4. The 'Pathalgadi rebellion', a grassroots political movement, is associated with some villages of which among the following states ?
- Jharkhand
 - Gujarat
 - Madhya Pradesh
 - Uttarakhand

Solution: a.

- In recent months, many Adivasi villages in Jharkhand have put up giant plaques – **Pathalgadis** – declaring their gram sabha as the only sovereign authority and banning 'outsiders' from their area.
- In Munda tribal custom, placement of a huge stone marks the death of a person. The **Pathalgadi movement** draws on this tradition of honouring the community's ancestors. Activists say that the movement derives inspiration from the provisions of the **PESA [Panchayats (Extension to Scheduled Areas) Act, 1996]**. The leaders of the movement decided to carve the key provisions of the PESA as messages on huge stones in order to enlighten Adivasi people about this law, which empowered a village as an administrative unit.

<http://www.thehindu.com/news/national/other-states/the-pathalgadi-rebellion/article23530998.ece>;

5. Consider the following statements:

- The red corridor – districts affected by Left Wing Extremism or naxal violence – is presently spread across 11 states
- The total number of "worst-affected districts" that account for 90% of the LWE violence have reduced since 2015

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

Solution: c.

The **National Policy and Action Plan to combat LWE** was initiated in **2015**. Presently, 90 districts in 11 States will now be covered by the Scheme, down from 126 (44 districts have been removed – the maximum number of which is from the state of Telangana – and 8 new districts have been added). The list of ‘Most Affected Districts’ has been pruned to 30, down from 36 (Jharkhand accounts for the largest number of such districts).

[IE Explained](#); [PIB](#);

6. Consider the following pairs:

<i>Town/City</i>	–	<i>State</i>
1. Ambassa	–	Tripura
2. Dimapur	–	Assam
3. Tinsukia	–	Nagaland

Which of the pairs given above is/are correctly matched ?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Solution: a.

Dimapur is in Nagaland and Tinsukia in Assam.

Improvisation: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=178769>;

7. Consider the following pairs:

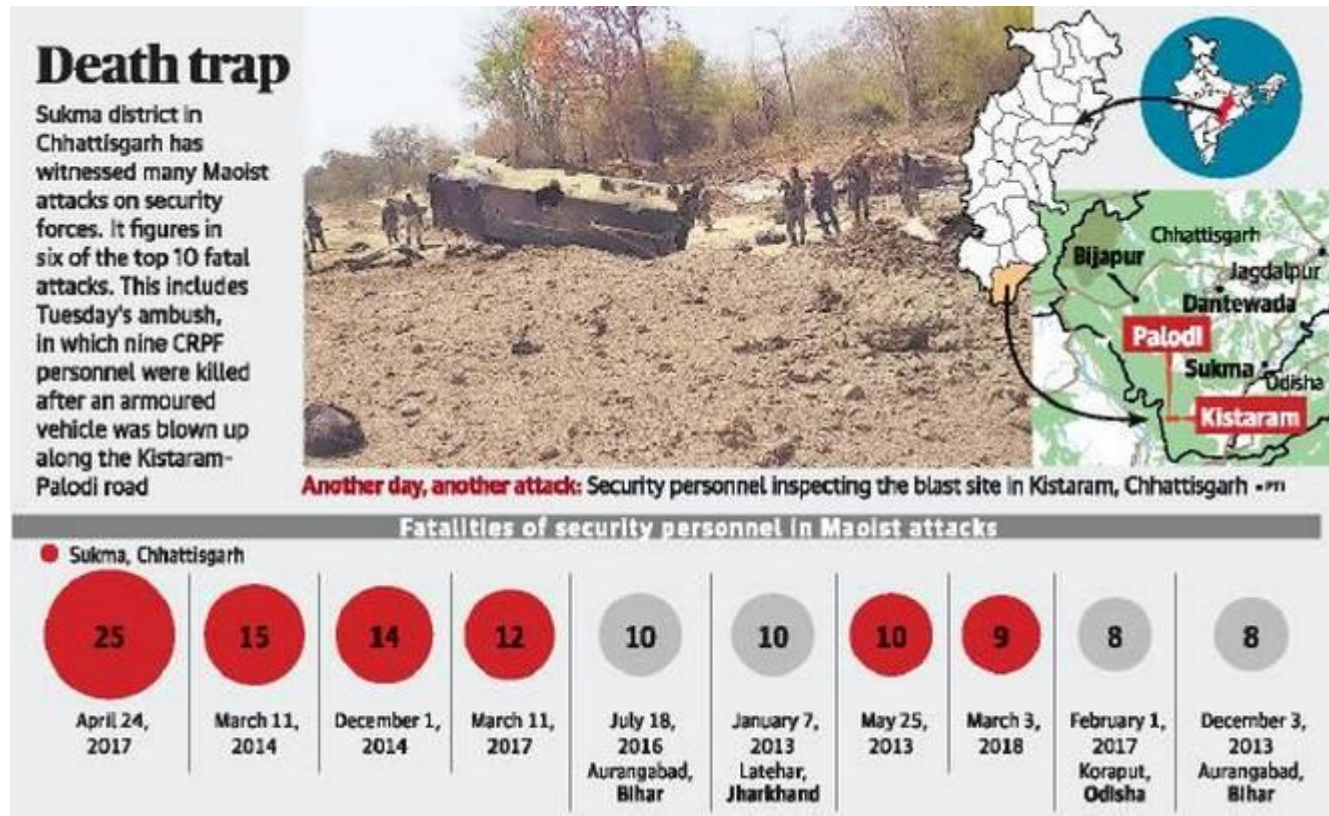
<i>Left Wing Extremism-affected region</i>	–	<i>State</i>
1. Bastar	–	Chattisgarh
2. Aurangabad	–	Bihar
3. Latehar	–	Jharkhand
4. Gadchiroli	–	Chattisgarh

Which of the pairs given above is/are correctly matched ?

- 1, 2 and 3 only
- 1 and 2 only
- 3 and 4 only
- 1, 2, 3 and 4

Solution: a.

Image from March 2018: [TH](#); Gadchiroli – Maharashtra; Improvisation: [TH](#);



IX. Miscellaneous

1. The '2018 Internal Security Threat Report' was published by
 - a) Symantec
 - b) Institute for Defence Studies and Analyses
 - c) Observer Research Foundation
 - d) Kaspersky Lab

Solution: a.

- India emerged as the third most vulnerable country in terms of risk of cyber threats, such as malware, spam and ransomware, in 2017, moving up one place over previous year, according to a report by security solutions provider Symantec.
- In 2017, 5.09% of global threats detected were in India, slightly less than 5.11% in 2016. The U.S. (26.61%) was most vulnerable to such attacks, followed by China (10.95%), according to 'Internet Security Threat Report'.
- The global threat ranking is based on eight metrics — malware, spam, phishing, bots, network attacks, web attacks, ransomware and cryptominers.

[http://www.thehindu.com/news/national/india-third-most-vulnerable-country-to-cyber-threats/article23437238.ece;](http://www.thehindu.com/news/national/india-third-most-vulnerable-country-to-cyber-threats/article23437238.ece)

2. 'Gold Coast', which is playing host to the Commonwealth Games 2018, is a city in
 - a) Jamaica
 - b) Côte d'Ivoire
 - c) South Africa
 - d) Australia

Solution: d.

In the news: Commonwealth Games 2018



[https://en.m.wikipedia.org/wiki/Gold_Coast,_Queensland;](https://en.m.wikipedia.org/wiki/Gold_Coast,_Queensland)

3. The 'World Health Day', celebrated on the 7th of April every year, marks the date on which
- A vaccine-preventable disease was first eradicated
 - The World Health Organisation was established
 - Penicillin, the first true antibiotic, was discovered
 - The discovery of the existence of different blood types

Solution: b.

"WHO began when our Constitution came into force on 7 April 1948 – a date we now celebrate every year as World Health Day.."

[http://www.who.int/about/en/;](http://www.who.int/about/en/)

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178501;>

4. 'Gaganshakti', recently in the news, is
- An IAF exercise that will test its war-waging capability
 - A Medium Multi-Role Combat Aircraft competition being organised by the Ministry of Defence
 - An Indian and Russian bilateral-air force HADR (Humanitarian and Disaster Response) exercise
 - None of the above

Solution: a.

An all encompassing coordinated and composite exercise named Gaganshakti is being conducted by the IAF from 08-22 Apr 18. The aim of this exercise is real time coordination, deployment and employment of Air Power in a short & intense battle scenario. During Gaganshakti IAF will exercise the entire machinery to validate its concept of operations and war waging capability.

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=178498;>

<http://www.thehindu.com/news/national/new-jets-wont-join-iaf-anytime-soon/article23468550.ece;>

5. The 'Global Talent Competitiveness Index' is an annual report that measures the ability of countries to compete for talent. This report is compiled by the
- Organisation for Economic Development and Cooperation
 - World Economic Forum
 - Aspen Institute
 - International business school INSEAD

Solution: d.

- GTCI** is an annual benchmarking report compiled by international business school INSEAD with The Adecco Group and Tata Communications. The latest (2018) report measures and ranks 119 countries (India is ranked 81st) and 90 cities (Mumbai and Delhi are ranked 89th and 90th – well, at least, they're on the list) based on their ability to grow, attract and retain talent.

- The study measures the performance of countries using six pillars: “Enable”, “Attract”, “Grow”, “Retain”, “Vocational and Technical Skills” and “Global Knowledge Skills”.

<https://www.weforum.org/agenda/2018/02/these-are-the-best-countries-and-cities-for-attracting-and-developing-talent/>;
<https://www.insead.edu/global-indices/gtci>;

Improvisation: <http://www.thehindu.com/opinion/op-ed/building-indias-talent-base/article23505879.ece>;

6. Which among the following statements are correct about the Indian Air Force’s Exercise Gaganshakti-2018 ?

1. It includes joint operations with the other services, viz. the Indian Army and the Indian Navy
2. For the first time, the C-17 Globemaster aircraft will be tested for its efficacy and integration in the operational matrix of the IAF
3. Under this exercise, the IAF has formalised the concept of a forward surgical centre for the first time

Select the correct answer using the code given below:

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Solution: c.

Statement 1 is correct.

For the first time, the **Light Combat Aircraft** will be tested for its efficacy and integration in the operational matrix of the IAF.

For the first time, the IAF formalised the concept of a forward surgical centre (FSC). It is set up in a remote forward location to enhance the medical capabilities of a forward base away from a service hospital, thus providing medical facility to IAF and Army personnel in remote areas. Naliya is the first Air Force Station where such a centre has been operationalised, using men and material of the IAF.

Additional information about Gaganshakti: Apart from wartime drills, IAF will also practice and validate various Humanitarian Assistance and Disaster Relief drills that the IAF is expected to undertake from time to time.

[PIB1](#);

Source: <http://www.thehindu.com/news/national/air-force-tests-its-sinews-with-1110-aircraft-during-ongoing-military-exercise-gaganshakti/article23549746.ece>;

7. The ‘NAG Missile’, developed by the Defence Research and Development Organisation, is a/an

- a) Ballistic missile interceptor
- b) Underwater ballistic missile
- c) Nuclear-capable cruise missile
- d) Anti-tank guided missile

Solution: d.

The **NAG missile** is a third generation **anti-tank guided** missile, which has top attack capabilities that can effectively **engage and destroy all known enemy tanks** during **day and night**.

[PIB1](#); Improvisation: [PIB](#);

8. Consider the following statements with reference to China's geography:

1. Qingdao and Wuhan are coastal cities
2. Yunnan is a land-locked province

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

Solution: b.

Wuhan (capital of landlocked Hubei province) is where the informal summit between PM Modi and Xi Jinping is set to take place; Qingdao (coastal city in Shandong province; opens out to Yellow Sea) will host the SCO summit this June. Yunnan (landlocked province and whose capital is Kunming) often appears in the news.

Administrative Divisions of China



Improvisation: [TH](#);

