# INSIGHTSONINDIA



# DAILY QUIZ SEPTEMBER 2017

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Q. No.	Question	Solution	
	SEPTEMBER 1, 2017		
1.	Consider the following statements about HAM or the Hybrid Annuity Model of Public Private Partnership:  1. While the Government arranges all the finances for the project, the private player bears all the demand-side risk  2. It helps address the issue of NPA-riddled banks being wary of lending for projects being implemented by the private sector  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	<ul> <li>Solution: b.</li> <li>Hybrid Annuity based PPP model has been adopted for the first time in the country in sewage management sector. Such a model has earlier been adopted successfully in highway sector only.</li> <li>About Engineering, Procurement and Construction (EPC) and Build, Operate and Transfer (BOT): <ul> <li>Under the EPC model, NHAI pays private players to lay roads. The private player has no role in the road's ownership, toll collection or maintenance (it is taken care of by the government).</li> <li>Under the BOT model though, private players have an active role — they build, operate and maintain the road for a specified number of years — say 10-15 years — before transferring the asset back to the government. the private player arranged all the finances for the project, while collecting toll revenue or annuity fee from the Government, as agreed (BOT-Annuity).</li> </ul> </li> <li>About HAM</li> <li>HAM is a good trade-off, spreading the risk between developers and the Government. It combines EPC (40%) and BOT-Annuity (60%).</li> </ul>	
		<ul> <li>Here, the government pitches in to finance 40 per cent of the project cost (EPC component) — a sort of viability-gap funding. This helps cut the overall debt and improves project returns.</li> <li>The annuity payment structure means that the developers aren't taking 'traffic risk'.</li> <li>From the Government's perspective, it gets an opportunity to flag off road projects by investing a portion of the project cost. While it does take the traffic risk, it also earns better social returns by way of access and convenience to daily commuters.</li> <li>See image for advantages of HAM over previous models for road development (EPC, BOT).</li> <li>http://www.thehindubusinessline.com/opinion/columns/slate/what-is-ham-in-india/article9773587.ece;</li> <li>Improvisation:</li> </ul>	
2.	Most of the cattle indigenous to the tropics belong	http://pib.nic.in/newsite/PrintRelease.aspx?relid=170368  Solution: c.	
	to the  (a) Taurus species  (b) West African species	Most of the cattle indigenous to the tropics belong to the zebu species. The external trait which most clearly separates zebu from European type cattle is the hump over the shoulders or the posterior part of the neck. The term	

- (c) Zebu species
- (d) Aurox species

humped cattle is frequently used as a synonym to zebu cattle. The potential for milk production is poorly developed in most zebu cattle.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170352 http://www.fao.org/docrep/009/t0095e/T0095E04.htm

Ch-17, 'The Masai', Sudan Climate, GC Leong;

- 3. In the 'Indra Sawhney case', the Supreme Court held that
  - 1. Directive principles of state policy were subordinate to Fundamental Rights
  - 2. The decision of the presiding officer of the House regarding disqualification arising out of defection under the tenth schedule of the Constitution is subject to judicial review

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.

In the famous Mandal case (*Indra Sawhney v. Union of India* 1992), the scope and extent of Article 16(4), which provides for reservation of jobs in favour of backward classes, has been examined thoroughly by the Supreme Court. Though the Court has rejected the additional reservation of 10% for poorer sections of higher castes, it upheld the constitutional validity of 27% reservation for the OBCs with certain conditions, viz,

- The advanced sections among the OBCs (the creamy layer) should be excluded from the list of beneficiaries of reservation.
- No reservation in promotions; reservation should be confined to initial appointments only. Any existing reservation in promotions can continue for five years only (i.e., upto 1997).
- The total reserved quota should not exceed 50% except in some extraordinary situations. This rule should be applied every year.
- The 'carry forward rule' in case of unfilled (backlog) vacancies is valid. But it should not violate 50% rule.
- A permanent statutory body should be established to examine complaints of over-inclusion and underinclusion in the list of OBCs.

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170348

- 4. The support offered by Krishi Vigyan Kendras can, under the WTO categorisation of domestic support in favour of agricultural producers, be classified under
  - (a) Amber Box measures
  - (b) Green Box measures
  - (c) Blue Box measures
  - (d) None of the above

Solution: b.

There are basically two categories of domestic support — support with no, or minimal, distortive effect on trade on the one hand (often referred to as "Green Box" measures) and trade-distorting support on the other hand (often referred to as "Amber Box" measures). For example, government provided agricultural research or training is considered to be of the former type, while government buying-in at a guaranteed price ("market price support") falls into the latter category.

### Improvisation:

http://www.pib.nic.in/newsite/PrintRelease.aspx?relid=1
70392;

https://www.wto.org/english/tratop e/agric e/ag intro0
3 domestic e.htm;

- 5. Known in WTO parlance as 'Aggregate Measurement of Support (AMS)', it is considered to be the most trade-distorting form of farm subsidies. Consider the following statements about it:
  - 1. Only developing countries are permitted to provide such domestic price support measures, subject to reduction commitments
  - 2. India does not have AMS entitlements

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.

Recently India and China jointly submitted a proposal to the World Trade Organisation (WTO) calling for the elimination – by developed countries – of the most tradedistorting form of farm subsidies, known in WTO parlance as Aggregate Measurement of Support (AMS) or 'Amber Box' support as a prerequisite for consideration of other reforms in domestic support negotiations.

- Developed countries, including the US, the EU and Canada, have been consistently providing tradedistorting subsidies to their farmers at levels much higher than the ceiling applicable to developing countries. Developed countries have more than 90% of global AMS entitlements amounting to nearly US\$ 160 bn. Most of the developing countries, including India and China, do not have AMS entitlements.
- Developed Members have access to huge amount of AMS beyond their de minimis (these are the minimal amounts of domestic support that are allowed even though they distort trade — up to 5% of the value of production for developed countries, 10% for developing). In contrast most developing Members have access only to de minimis resulting in a major asymmetry in the rules on agricultural trade.
- Elimination of AMS, India and China believe, should be the starting point of reforms rather than seeking reduction of subsidies by developing countries.

http://www.pib.nic.in/newsite/PrintRelease.aspx?relid=1
70392;

https://www.wto.org/english/tratop e/agric e/ag intro0
3 domestic e.htm;

**6.** Consider the following statements:

- 1. France has an unemployment rate double that of other big European economies
- The Indian Government recently signed a Memorandum of Agreement with France's Ministry of Labour to collaborate on overhaul of their respective labour laws

Which of the statements given above is/are correct?

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

Solution: a.

A mains-oriented question.

- For decades governments of the left and right have tried to reform France's strict labour rules, but have always diluted them in the face of street protests.
- President Emmanuel Macron's government has begun its drive to overhaul France's rigid labour laws, vowing to "free up the energy of the workforce".
- France has an unemployment rate of 9.5%, double that
  of the other big European economies and Mr Macron
  has vowed to cut it to 7% by 2022. France's labour code
  is some 3,000 pages long and is seen by many as a
  straitjacket for business.
- Among the biggest reforms, individual firms are to be offered more flexibility in negotiating wages and conditions.
- Over half of French workers are employed by small or medium-sized businesses. The government wants to facilitate deals at local level by encouraging companies

with fewer than 50 employees to set up workers' committees that can bypass unions. The reforms have been praised by small business groups while some large trade unions have criticised it.

 Two points set these reforms apart from previous botched efforts to change the labour code. Even the most hostile union leaders concede that the government's method has been impeccable. There were proper negotiations, and there was give and take.

http://www.thehindu.com/news/international/french-labour-reform-caps-dismissal-awards-gives-firms-flexibility/article19594187.ece;

http://www.bbc.com/news/world-europe-41094790;

## SEPTEMBER 2, 2017

- 1. The Ministry of Commerce's 'Hortinet' mobile application will
  - 1. Minimise disruption to trade
  - Enable identification of the source of contaminated food products
  - 3. Use push notifications to enhance the outreach of Krishi Vigyan Kendras with farmers engaged in horticulture

Select the correct answer using the code given below:

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

Solution: a.

**Hortinet** is an INTEGRATED TRACEABILITY SYSTEM developed by APEDA for providing Internet based electronic services to the stakeholders for facilitating farm registration, testing and certification of Grape, Pomegranate and Vegetables for export from India to the European Union in compliance with standards.

#### What is "Traceability"?

 In the context of food products it means the ability to track any food, feed, food-producing animal or substance that will be used for consumption, through all stages of production, processing and distribution.

## Why is it needed?

- Traceability is a way of responding to potential risks that can arise in food and feed, to ensure that all food products in the EU are safe for European citizens to eat
- It is vital that when national authorities or food businesses identify a risk they can trace it back to its source in order to swiftly isolate the problem and prevent contaminated products from reaching consumers.
- In addition, traceability allows targeted withdrawals and the provision of accurate information to the public, thereby minimising disruption to trade.

http://www.thehindu.com/business/Industry/identify-farmers-labs-via-app-technology/article19604090.ece;

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170439;

https://ec.europa.eu/food/sites/food/files/safety/docs/gf I req factsheet traceability 2007

- 2. Members of EFTA or the European Free Trade
  Association include
  - 1. Switzerland
  - 2. Finland
  - 3. Norway
  - 4. Austria

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

Solution: b.

http://www.thehindu.com/business/Industry/switzerland-for-early-india-efta-pact/article19604210.ece

"The early conclusion of the proposed Free Trade Agreement (FTA) between India and European Free Trade Association (EFTA) as well as an investment protection framework would boost economic ties between the two sides, said the Switzerland President.." The EFTA Member States today are Iceland, Liechtenstein, Norway and Switzerland.



- **3.** Consider the following statements with reference to the Internet Government Forum (IGF):
  - 1. It is a forum for intergovernmental dialogue on policy issues related to internet governance
  - 2. It contributes to capacity building for internet governance
  - 3. India has been a host country of the IGF in the past

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: b.

The 2008 IGF was hosted by Hyderabad.

- The IGF is a forum for MULTI-STAKEHOLDER dialogue (and not just 'intergovernmental') on public policy issues related to key elements of Internet governance issues, such as the Internet's sustainability, robustness, security, stability and development.
- The purpose of the IGF is to maximize the opportunity for open and inclusive dialogue and the exchange of ideas on Internet governance (IG) related issues; create opportunities to share best practices and experiences; identify emerging issues and bring them to the attention of the relevant bodies and the general public; contribute to capacity building for Internet governance.

https://www.intgovforum.org/multilingual/content/about -igf-faqs

http://www.thehindu.com/business/Industry/switzerland-for-early-india-efta-pact/article19604210.ece;

- **4.** 'Early Childhood Care and Education (ECCE)', a term sometimes seen in the news, appears in the context of
  - (a) Pre-school education
  - (b) Primary school education
  - (c) Secondary school education
  - (d) a, b and c

- **5.** Consider the following statements:
  - 1. The Indian state can deprive the right to life and personal liberty of a person based on a law
  - 2. 'Dignity of an individual' forms a part of the basic structure of our Constitution

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: a.

- Smt Maneka Sanjay Gandhi released an important training module for anganwadi workers called Early Childhood Care and Education Training Module. The training module is designed to provide the anganwadi workers a basic understanding of the ECCE curriculum and pedagogical approaches to ensure optimal and holistic development of young children so that they are ready to start formal schooling at the age of six years.
- She said that ECCE training module is a landmark achievement since the government has for the first time ever prepared norms for anganwadi workers to impart pre-school education. Since pre-school education lays the foundation of a child for the future, it is very important to have norms under which anganwadi workers are able to plan and conduct appropriate ECE activities for 3-6 year old children.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170448;

Solution: c.

Both statements are correct.

- In the famous Gopalan case (1950), the Supreme Court has 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. Hence, the validity of a law that has prescribed a procedure cannot be questioned on the ground that the law is unreasonable, unfair or unjust.
- Secondly, the Supreme Court in the same case held that the 'personal liberty' means only liberty relating to the person or body of the individual.
- But, in Maneka 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'. In effect, the protection under Article 21 should be available not only against arbitrary executive action but also against arbitrary legislative action.
- Further, the court in the Maneka case held that the 'right to life' as embodied in Article 21 is not merely confined to animal existence or survival but it includes within its ambit the right to live with human

dignity and all those aspects of life which go to make a man's life meaningful, complete and worth living. It also ruled that the expression 'Personal Liberty' in Article 21 is of the widest amplitude and it covers a variety of rights that go to constitute the personal liberties of a man.

Chapters: 'Basic Structure of the Constitution' and 'Fundamental Rights', Indian Polity by M Laxmikanth;

## Improvisation:

http://www.thehindu.com/news/national/karti-invokesseven-judge-constitution-bench-verdict-againstloc/article19603803.ece;

## **SEPTEMBER 4, 2017**

- Members of the X-Ray Free Electron Laser (XFEL)hosted by Germany include:
  - 1. India
  - 2. Russia
  - 3. USA

Select the correct answer using the code given below:

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

Solution: b.

It is called the European X-ray Free Electron Laser. India is not a member, neither is the USA.

- Germany not only hosts the XFEL, it has provided most of the funding and the technology. The other members are Russia, Denmark, France, Hungary, Italy, Poland, Slovakia, Spain, Sweden and Switzerland (and soon, UK as well).
- The facility, which has cost more than a billion euros to build, will be used to study the detailed structure of matter, atom by atom. It is one of the most powerful X-ray machines ever built.
- Scientists say the way it shines light on targets will permit, for example, chemical bonds to be filmed in the instant that they are made or broken. The researchers anticipate discoveries that lead to new medical treatments and novel materials, just to name two possibilities.

http://www.bbc.com/news/science-environment-41117442;

- **2.** The Code on Wages, 2017 recently introduced in the Parliament, governs which of the following aspects?
  - 1. Fixing the minimum wage
  - 2. Fixing the number of hours that will constitute a working day
  - 3. Determination of bonus
  - 4. Penalties to be imposed for contravening any provision of the code

Select the correct answer using the code given below:

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

Solution: d.

Intended to bring relief to both employers and employees, the Code amalgamates, simplifies and rationalises the relevant provisions of the four Central labour enactments, namely

- the Payment of Wages Act, 1936;
- the Minimum Wages Act, 1948;
- the Payment of Bonus Act, 1965; and
- the Equal Remuneration Act, 1976.

The four Acts will stand repealed with the passage of the Bill. Facilitating easier compliance of the law, the Code will ultimately create conditions for setting up of more enterprises and fresh employment opportunities.

(d) 1, 2, 3 and 4

http://www.prsindia.org/uploads/media/Code%20on%20 Wages,%202017/The%20Code%20on%20Wages%20Bill% 20Summary.pdf;

http://pib.nic.in/newsite/printrelease.aspx?relid=170433;

http://www.thehindu.com/todays-paper/govt-dropsplan-to-protect-transgender-labourrights/article19617227.ece;

- **3.** With reference to a 'Sherpa' in international negotiations, consider the following statements:
  - He is the personal representative of a head of state or government at an international summit
  - 2. They generally lack the authority to independently make final decisions

Which of the above statements 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.

"Mr. Prabhu is no stranger to international trade-related issues as he was the Indian Sherpa to the G-20..."

- A Sherpa is a personal representative of the leader of a member country at an international Summit meeting such as the G8, G20 or the Nuclear Security Summit. The term is derived from the Nepalese Sherpa people, who serve as guides for mountaineers in the Himalayas.
- The Sherpa engages in planning, negotiation and implementation tasks through the Summit. They coordinate the agenda, seek consensus at the highest political levels, and participate in a series of pre-Summit consultations to help negotiate their leaders' positions. Sherpas are career diplomats or senior government officials appointed by the leaders of their countries. There is only one Sherpa per Summit for each member country; he/she is assisted by several sous Sherpas.

http://www.thehindu.com/todays-paper/tpbusiness/more-jobs-fdi-exports-to-be-infocus/article19617062.ece;

http://indianexpress.com/article/explained/g20-meet-what-role-does-the-sherpa-play-in-the-negotiations-3015461/;

- **4.** Earth Overshoot Day
  - Marks the date when humanity's annual demand on nature exceeds what earth can regenerate in that year
  - 2. Advances by at least a day, each successive year

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.

Both statements are correct. Earth Overshoot Day is hosted and calculated by Global Footprint Network, an international think tank that coordinates research, develops methodological standards and provides decision-makers with a menu of tools to help the human economy operate within Earth's ecological limits. It was earlier known as 'Ecological Debt Day'.

http://www.overshootday.org/about-earth-overshootday/;

http://www.thehindu.com/opinion/op-ed/investing-in-the-ecosystem/article19616004.ece;

http://www.thehindu.com/opinion/op-ed/today-is-earth-overshoot-day-and-thats-worrying/article7536031.ece;

- Which one of the following statements relate to Rule 12 of the recently proposed draft rules of the RTI (Right to Information) Act?
  - (a) The Central Information Commission (CIC) can order the disclosure of information to an applicant who has come under the complaint clause
  - (b) Complaints can be filed by applicants only within 90 days of filing the RTI application
  - (c) Proceedings before pending before the (CIC) Commission shall abate on the death of the appellant
  - (d) Each RTI petition must be limited to 500 words

Solution: c.

"In April, the government of India proposed amendments to the RTI Act, one of the most empowering pieces of legislation inherited from the UPA era. The most controversial amendment pertained to Rule 12. It would allow the withdrawal of an application in case of the applicant's death, making the job of those who file RTIs even more risky." .. Risky, because information seekers may be killed as the information against them (vested interests) cannot be ordered to be disclosed in such cases.

http://indianexpress.com/article/opinion/columns/its-lonely-on-the-ground-4827124/;

## **SEPTEMBER 5, 2017**

- **1.** The Democratic People's Republic of Korea has acceded to/ratified which of the following treaties?
  - 1. Comprehensive Nuclear-Test-Ban Treaty
  - 2. Treaty on the Non-Proliferation of Nuclear Weapons
  - 3. Treaty on Prohibition of Nuclear Weapons

Select the correct answer using the code given below:

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

Solution: b.

North Korea acceded to the NPT in 1985.

NPT: http://disarmament.un.org/treaties/t/npt;

CTBT: <a href="https://www.ctbto.org/the-treaty/status-of-signature-and-ratification/">https://www.ctbto.org/the-treaty/status-of-signature-and-ratification/</a>;

TPNW:

https://www.un.org/disarmament/ptnw/participants.htm

Improvisation:

http://www.thehindu.com/opinion/editorial/sabrerattling/article19621245.ece;

Glossary of terms relating to treaty actions:

https://treaties.un.org/Pages/Overview.aspx?path=overview/glossary/page1 en.xml

- **2.** Theoretically, which of the following can be regarded as contributing factors to income inequality?
  - Societies that are predominantly individualistic as opposed to ones that are collectivist
  - 2. Universal access to quality education at all levels
  - 3. Automation

Select the correct answers using the code given below:

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

Solution: c.

A common belief, even among economists, is that inequality is greater in individualistic societies than in collectivist ones. Individualistic societies are generally considered to be selfish and uncaring towards fellow human beings, which, it is believed, should cause them to suffer greater economic inequality. society. For the same reason, individualistic societies prefer a smaller government that imposes lower taxes and regulations on everyone, while collectivist societies prefer a larger government to impose a greater burden on the rich. The creation of a larger government in theory is supposed to redistribute wealth and uphold social justice. In reality however, it provides greater opportunities for special interest groups to capture it and forward their own agenda. This results in fewer economic opportunities for the wider population, which results in lower competition and greater economic inequality.

- In countries that provide higher-quality secondary education across the economic spectrum, there is much less income disparity.
- Family and social interactions impact earning potential. Social and emotional skills critical to leading a quality life are not sufficiently developed in economically distressed areas with a high percentage of unstable families.
- Increased demand for high-skilled workers adds to a
  widening wage gap. Companies are investing more
  heavily in developing a high-skilled workforce, driving
  wages up for high-skilled workers. This leads to deemphasising or automating low-skilled functions,
  pushing wages for low-skilled workers down.

http://www.thehindu.com/opinion/op-ed/the-selfish-way-to-combat-inequality/article19620891.ece;

http://www.investopedia.com/terms/i/incomeinequality.asp;

- **3.** The applications of NavIC include
  - 1. Providing fishermen with alerts related to bad weather
  - 2. Managing and facilitating better traffic management in cities
  - 3. Managing resources efficiently using Geotagging and Geo-fencing techniques

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.

IRNSS is an independent regional navigation satellite system being developed by India. It is designed to provide accurate position information service to users in India as well as the region extending up to 1500 km from its boundary, which is its primary service area. IRNSS will provide two types of services, namely, Standard Positioning Service (SPS) which is provided to all the users and Restricted Service (RS), which is an encrypted service provided only to the authorised users. Some important applications of NavIC (the IRNSS constellation) include:

- Fisheries (Using the messaging capabilities, fishermen can receive alerts related to bad weather and high waves)
- Shipping
- Transport (NavIC helps monitor the movement of school vans and facilitates better traffic management in cities, towns and highways)
- Railways
- Resource Management (The position information derived from NavIC helps Government agencies to manage resources efficiently using Geo-tagging and Geo-fencing techniques. The position of an object is linked with the virtual maps and alert messages are generated when there is a movement of object beyond permissible limits)
- Location-based Services
- Survey and Alignment
- Time-synchronised Services

Refer to pages 5 and 6 of the brochure for details regarding applications:

http://www.isro.gov.in/pslv-c39-irnss-1h-mission/pslv-c39-irnss-1h-brochure;

## Improvisation:

http://www.thehindu.com/opinion/editorial/down-but-not-out/article19621247.ece;

**4.** The "Trilateral Highway" and the "Kaladan Multimodal Transport and Transit Project" both are often in the news with reference to which one of the following countries?

Solution: c.

Though the trilateral highway includes Thailand, the KMTTP does not. KMTTP is restricted to Myanmar and India.

(a) Afghanistan

KMTTP:

(b) Iran

http://www.mdoner.gov.in/content/introduction-1;

http://www.mdoner.gov.in/node/1505;

(c) Myanmar

About Trilateral Highway:

(d) Thailand

http://www.thehindu.com/opinion/lead/making-up-for-lost-time/article19621257.ece;

5. North Korea recently claimed to have tested a Hydrogen bomb. Which of the following statements

Ans: c.

1. It is also known as a thermonuclear bomb

with regard to the Hydrogen bomb is/are correct?

A thermonuclear bomb – colloquially known as a hydrogen bomb – is essentially a two-stage explosion: one a nuclear fission reaction, the other a nuclear fusion reaction. The primary explosion is the fission reaction – think, a conventional nuclear bomb – that emits x-rays that cause the secondary explosion, triggered by the fusion of tritium and deuterium, two hydrogen isotopes. These two isotopes naturally repel each other, but the x-rays weaken this repellent force, causing the pair to fuse together. It is the fusion of these two isotopes that triggers the enormous energy release that makes thermonuclear explosions so destructive.

2. A nuclear fission reaction is followed by a fusion reaction

Indian Express Explained Page, 5th September;

Select the correct answer using codes given below:

https://www.nytimes.com/2017/09/03/world/asia/north-korea-hydrogen-bomb.html;

(a) 1 only

From 2016:

(c) Both 1 and 2

(b) 2 only

http://www.theguardian.com/world/2016/jan/06/north-korea-test-what-is-a-miniaturised-hydrogen-bomb;

(d) Neither 1 nor 2

**6.** Which of the following constitute Intellectual Property Rights or IPRs?

Solution: d.

1. Designs

3. Semi-Conductors Integrated Circuit Layout Design

ayout Ind

The Cell for IPR Promotions & Management (CIPAM) under the aegis of Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, has launched a social media campaign to promote Indian Geographical Indications (GIs) with #LetsTalkIP which is an ongoing movement initiated by CIPAM to make more people aware about the importance of Intellectual Property Rights. In the recent past, the government had launched similar initiatives such as #IWearHandloom and #CottonIsCool to promote and revive traditional handwoven textiles.

4. Trade Secrets

Plant Varieties

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

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170492;

Image;

#### **Clarification:**

## Q1, 5th September Quiz:

North Korea withdrew from the NPT in 2003 following which the six-party talks began. The answer does not change, but the question should instead have been, for the sake of clarity, "The Democratic People's Republic of Korea has acceded to/ratified which of the following treaties in the past?".

## SEPTEMBER 6, 2017

- **1.** Gandhiji's talisman, found in school textbooks, is most appropriately associated with which one of the following values?
  - (a) Discipline
  - (b) Integrity
  - (c) Empathy
  - (d) Humility

Solution: c.

A mains-oriented question.

There are some guiding principles that form the bedrock of the higher civil services in the country. These essential wellsprings must not be allowed to dry up.

- The first is 'empathy'. Mahatma Gandhi's advice to anyone who was in doubt if an action was good or not was to put oneself in the situation of the poorest of the poor in the country and see how a particular policy and programme will impact him or her. If the emphasis is on service to the country, the essential quality we may have to imbibe is to better understand whom we are serving- their needs, aspirations and their living conditions.
- The second principle is 'efficiency'. As administrators occupying the highest positions of power and authority, you will have an onerous responsibility to translate policies into programmes, to implement schemes on ground. You will be providing that most important link between legislation and implementation.
- The third principle is impartiality. The civil service was created to provide an impartial inclusive management culture in the country's governance. This was absolutely necessary in the multi-lingual, multi-religious, pluralistic society that India is. Being impartial and having a broad vision of national integration and inclusive development, the founding fathers thought of the higher civil services as the steel frame of the country.
- The fourth principle is incorruptibility. As a member of the civil services, one must not only be empathetic and efficient but must have an impeccable integrity.
   70 years ago, Sardar Patel said: "Unhappily India today cannot boast of an incorruptible service, but I hope that you who are now starting, as it were, a new

generation of Civil Servants, will not be misled by black sheep in the fold, but would render your service without fear or favour and without, any expectation of extraneous rewards. If you serve in the true spirit of service I am sure you will have your best reward."

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170524;

- **2.** Which of the following statements about the 'Barefoot College' is/are correct?
  - 1. It was established as a movement which campaigned to drive home the message that the poor should be able to walk safely
  - 2. It has a singular objective of spreading selfsufficiency and sustainability across rural areas especially in LDCs (Least Developed Countries)

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.
- Improvisation (PM's speech: <a href="http://pib.nic.in/newsite/PrintRelease.aspx?relid=17">http://pib.nic.in/newsite/PrintRelease.aspx?relid=17</a>
   <a href="https://osa.nic.in/newsite/PrintRelease.aspx?relid=17">o533</a>): "..The "Solar Mamas" of Africa, trained in India, are lighting up thousands of homes across the African continent..."
- (http://pib.nic.in/newsite/PrintRelease.aspx?relid=1 46949): These "solar mamas" come from across Africa (and now from other regions too – Latin America, West Asia) and are trained at the Barefoot College in Rajasthan's Tilonia village. In recent years, the Barefoot college has opened up branches in other countries (ex: Tanzania). The Barefoot College is an actual centre for learning, and can also be regarded as a movement supporting women empowerment with its impact felt across the world.
- About the Barefoot College (https://www.barefootcollege.org/about/): "For more than 40 years, The Barefoot College has designed new ways to nurture and support a journey to empowerment, one village at a time, one woman at a time. We demystify and decentralise technology and put new tools in the hands of the rural poor with a singular objective of spreading self-sufficiency and sustainability. With a geographic focus on the Least Developed Countries, we train women worldwide as solar engineers, innovators and educators, who then return to their villages to bring light and learning to their community.... The chain of colleges support various entrepreneurial skills such as bee-keeping and tailoring among others.... As the world shifts its attention to global poverty alleviation and combating climate change, the success of The Barefoot College's holistic approach built on empowering women from around the globe offers a clear plan for large-scale impact."
- Which of the following statements about the Indian Technical and Economic Cooperation Assistance Programme (ITEC) is/are correct?
  - 1. It is essentially a bilateral programme of assistance of the Government of India
  - Its activities are also associated with regional and multilateral organisations like ASEAN and AARDO

#### Solution: c.

The decision regarding setting up the ITEC programme in 1964 was predicated on the underlying belief that "it was necessary to establish relations of mutual concern and inter-dependence based not only on commonly held ideals and aspirations, but also on solid economic foundations. Technical and economic cooperation was considered to be one of the essential functions of an integrated and imaginative foreign policy."

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

- The ITEC Programme is essentially bilateral in nature. However, in recent years, ITEC resources have also been used for cooperation programmes conceived in regional and inter-regional context such as Commonwealth Secretariat, Group of 77 and G-15, among others. In more recent years, its activities have also been associated with regional and multilateral organizations and cooperation groupings like Association of South East Asian Nations (ASEAN), Mekong-Ganga Cooperation (MGC), Afro-Asian Rural Development Organization (AARDO) and Caribbean Community (CARICOM), among others.
- For over half a century, ITEC has offered training and skill development to 161 partner countries from Asia, Africa, Eastern Europe, Latin America, Caribbean and Pacific Island states.

#### Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170533;

For more information about ITEC, SCAAP and TCS of Colombo Plan ("The ITEC programme, along with SCAAP and TCS of Colombo Plan, is a visible symbol of India's role and contribution to South-South cooperation"), refer: https://www.itecgoi.in/about.php;

## **4.** Consider the following statements:

- 1. The pace of decline in overall levels of undernutrition between the National Family Health Survey (NFHS-3) and NFHS-4 is far below what numerous countries with similar growth trajectories have achieved
- 2. NITI Aayog's National Nutrition Strategy framework proposes the establishment of a National Nutrition Monitoring Bureau to generate reliable and comparable nutritional data from all parts of the country

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: a.

One of the concerns expressed is that there is a lack of REALTIME measurement of nutrition determinants, which reduces our capacity for targeted action among the most vulnerable mothers and children. The National Nutrition Monitoring Bureau was set up in 1972, to monitor the nutritional status of our population.

- With a benefit to cost ratio of 16:1 for 40 low and middle-income countries, there is a well recognized rationale, globally, for investing in Nutrition. The recently published NFHS-4 results reflect some progress, with a decline in the overall levels of under nutrition in both women and children. However, the pace of decline is far below what numerous countries with similar growth trajectories to India have achieved.
- From 2016

http://pib.nic.in/newsite/PrintRelease.aspx?relid=13 4608: Poor nutrition is less common than reported in NFHS-3. Fewer children under five years of age are now found to be stunted, showing intake of improved nutrition. In nine States/Union Territories, less than one-third of children are found too short for their age. While this reveals a distinct improvement since the previous survey, it is found that in Bihar, Madhya Pradesh and Meghalaya more than 40% of children are stunted. Wasting is still very high by international standards in all of the States/Union Territories.

Anaemia has also declined, but still remains widespread. More than half of women are anaemic in eleven States/Union Territories. Over-nutrition continues to be a health issue for adults. At least 3 in 10 women are overweight or obese in Andaman and Nicobar Islands, Andhra Pradesh, Goa, Puducherry, and Tamil Nadu.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170549;

- **5.** With Mission Parivar Vikas,
  - (a) The access to contraceptives and family planning services in high fertility districts will increase
  - (b) ASHAs will be for the first time at the forefront a the Government's family planning activities
  - (c) Private sector gynaecologists and vasectomy surgeons will for the first time conduct sterilisation operations under the Government's family planning initiatives
  - (d) The projected population of India is sought to be restricted to 1.5 billion by 2050

Solution: d.

According to the **UN World Population Prospects: 2017 Revision**, India will continue to grow until 2061 or so and only start to decline when its population has gone well past 1678.7 million people, when it will be the most populous country the world has ever seen.

- The key strategic focus of Mission Parivar Vikas, a central family planning initiative, is on improving access to contraceptives through delivering assured services, ensuring commodity security and accelerating access to high quality family planning services.
- The mission is being implemented in 146 high focus districts with the highest total fertility rates in the country (3 and above). These districts are in the seven high focus, high Total Fertility Rates (TFR) states of Uttar Pradesh, Bihar, Madhya Pradesh, Rajasthan, Jharkhand, Chhattisgarh and Assam, which constitute 44% of the country's population.
- The main objective of the Mission Parivar Vikas family planning initiative is to bring down the Total Fertility Rate to 2.1 by the year 2025.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170537;

## **Clarification:**

Clarification: 6th September Quiz

Answer to Q5 must be option 'a', as is apparent from the explanation.

## SEPTEMBER 7, 2017

- 1. Upholding the Constitutional mandate under Article 256 of the Indian Constitution can be most appropriately associated with which one of the following salient features of the Indian Constitution?
  - (a) A synthesis between the British principle of Parliamentary sovereignty and the American principle of judicial supremacy
  - (b) No religion is upheld as the official religion of the Indian State
  - (c) Principle of coordination between the legislative and executive organs of Government

Solution: d.

Article 256 in The Constitution Of India (Obligation of States and the Union): The executive power of every State shall be so exercised as to ensure compliance with the laws made by Parliament and any existing laws which apply in that State, and the executive power of the Union shall extend to the giving of such directions to a State as may appear to the Government of India to be necessary for that purpose.

## Improvisation:

http://www.thehindu.com/todays-paper/attacks-by-cowvigilantes-must-stop-sc-tells-states/article19633253.ece;

- (d) Federation with a centralising tendency
- **2.** Which of the following is/are (a) recommendation(s) made by the Tarun Ramadorai Committee on household finance?
  - 1. To link gold holdings with the Aadhaar number of the head of each household
  - 2. To create customised financial products based on the traditions of households

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

Solution: b.

The Household Finance Committee chaired by Tarun Ramadorai was constituted in September 2016 to examine various aspects of household finance, and compare India's position with other countries. Recommendations made by it include:

- Customised products: Indian households require customised financial products based on their unique economic conditions and traditions.
- Regulation: There is a need for a flexible framework which allows financial technology firms to test their financial products on a small scale, and in a controlled environment.
- Data privacy: Technological solutions to household finance rely on the households sharing their personal data with financial institutions. A data privacy framework for household finance should be considered.

http://www.prsindia.org/uploads/media/MPR/MPR-%20August%202017.pdf#page5;

- **3.** Key observations and recommendations of NITI Aayog's Ease of Doing Business Report include
  - 1. Faster growing states exhibited fewer delays in granting clearances and were more flexible in implementing environment laws
  - 2. Access to low cost capital is recognised by most businesses as unique to doing business in India in recent times
  - 3. Better dissemination of government information related procedures, to businesses, is needed

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: c.

The report is based on a survey of 3,500 manufacturing firms across the country.

- Half of the businesses do not borrow from financial institutions, and one-third consider access to finance as a major business obstacle. The report suggested that enhancing low cost access to capital may improve the business environment.
- The survey found that some businesses were unaware about the single window facilities created by the states to facilitate grant of clearances and permissions.

http://www.prsindia.org/uploads/media/MPR/MPR-%20August%202017.pdf#page5

- 4. As per the latest release of the annual publication 'Road Accidents in India', which one of the following is the main cause of road accidents?
  - (a) Over-speeding
  - (b) Design fault of speed-breakers
  - (c) Defect in road condition
  - (d) Driving under the influence of alcohol

Solution: a.

According to the Ministry of Road Transport and Highways' 'Road Accidents in India – 2016' Report, drivers' fault was identified as the main cause for Road Accidents – about 84.0% of total Road Accidents & 80.3% of Road Accident Deaths. Within drivers' fault, over-speeding accounts for the most number of accidents and related deaths.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170577;

## **5.** Consider the following statements:

- 1. The State of Melaka in Malaysia opens out to the Gulf of Thailand
- 2. India's UJALA scheme was recently launched in the State of Melaka
- 3. Eligible BPL families are provided with LPG connections under the UJALA scheme

Which of the statements given above is/are correct?

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

## http://pibphoto.nic.in/documents/rlink/2017/sep/i20179 601.pptx;

Solution: c.

UJALA scheme has already been launched in the United Kingdom (UJALA-UK), and will now also be implemented in the Malaysian state of Melaka (anglicised version: Malacca).

- The Malaysian State of Melaka opens out to the Malacca Strait.
- UJALA stands for 'Unnat Jyoti by Affordable Lighting for All', which is a zero-subsidy programme
- In this initiative, the nodal organisation, EESL or Energy Efficiency Services Limited (under the Ministry of Power), had undertaken the task of setting up phase-wise LED distribution centres across the nation to provide people with affordable LED bulbs and energy efficient appliances. Due to bulk LED bulb procurement by EESL, a healthy competition rose among the manufacturers and this brought down the prices of LED bulbs in India from a range of about Rs. 300 Rs.400 to about Rs. 70 per bulb. Through this journey, EESL began to majorly transform the market for energy efficient lighting in India in a mere span of only a year.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170569;

## **SEPTEMBER 8, 2017**

- Which of the following measures, if adopted, will ensure safety in train operations?
  - 1. Elimination of unmanned level crossings
  - 2. Manufacture and procurement of only Linke Hoffman Busch coaches
  - 3. Anti-fog LED lights installed on all locomotives

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.

Railway traffic signals are invisible with the naked eye in foggy conditions. Anti-fog lights can improve the visibility for the loco pilot who then can respond appropriately to traffic signals. This ensures safety of passengers. Regarding LHB coaches (statement 2) we have earlier asked questions specific to it.

- At the meeting held to comprehensively review Safety measures for train operations, two major causes leading to accidents were identified as: a) Unmanned Level Crossings and b) Derailments due to defects in tracks.
- The Minister of Railways gave the following directions to ensure Safety in train operations: a) All unmanned level crossings should be eliminated expeditiously on the entire Indian Railway network in a year's time from now, b) Track Replacement/renewal should be accorded Priority & the tracks (rails) earmarked for use for constructing new lines should be diverted to places/ stretches which are prone to accidents & where replacement is due, c) procurement of new rails should be expedited on a large scale with a view to complete construction of new lines in time and two

other measures are mentioned in the options to the question above.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170598;

- Which one of the following autonomous bodies/authorities or programmes can directly help achieve some targets under Sustainable Development Goal Four (4)?
  - (a) National Mission for Clean Ganga
  - (b) National Literacy Mission Authority
  - (c) National Vector Borne Disease Control Programme
  - (d) Smart Cities Mission

Solution: b.

The theme announced by UNESCO for International Literacy Day (ILD) 2017 is `Literacy in a digital world'. SDG 4 ("Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all") has targets that encompass many different aspects of education.

- The National Literacy Mission Authority (NLMA) is the nodal agency for overall planning, management and funding of adult education programmes and institutions. It is an autonomous wing of the Ministry of Human Resource Development.
- The NLMA started celebrating ILD every year from 1988 onwards. The occasion of ILD is used for raising public awareness to eradicate illiteracy and create environment in favour of adult education programmes.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170592;

**3.** Consider the following pairs:

## Fighter plane Co

Country of origin of manufacturer

1. F-18 : USA

2. F-16 : Sweden

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

: Germany

- (a) 1 only
- (b) 1 and 2 only

Gripen

- (c) 2 only
- (d) 1 and 3 only

Solution: a.

Why this is relevant – Fighter jets cost. A lot. Purchase of fighter jets in large numbers will naturally impact our relations with the countries involved. If we don't purchase the F-18s or F-16s (both made in USA), it may be a cause for some degree of discomfort in bilateral relations albeit, perhaps, temporarily. If we purchase, say, the Gripen (made in Sweden), our relations with Sweden will only get better. The country that manages to sell us their planes will be creating a lot of jobs for their people. Following is a list of aircrafts whose manufacturers are competing for being acquired by our armed forces:

Single Engine fighter acquisition for the IAF:

- F-16: Manufactured by Lockheed Martin, USA
- Gripen: Manufactured by Saab, Sweden

Twin Engine fighter acquisition for the Indian Navy:

- Rafale: Manufactured by Dassault Aviation, France
- F-18: Manufactured by Boeing, USA

http://www.thehindu.com/news/international/trumpregime-supports-sale-of-f-16-and-f-18/article19637853.ece;

- Why did India refuse to be a part of the 'Bali Declaration' at the recently concluded 'World Parliamentary Forum on Sustainable Development'?
  - (a) The forum refused to recognise the hitherto globally agreed principle of CBDR-RC as a sine qua non towards achieving SDGs
  - (b) The declaration included "adherence by all countries to TRIPS+ agenda on Intellectual Property Rights" as a means to achieving SDGs, which India has always steadfastly opposed
  - (c) The declaration carried an inappropriate reference to violence in the Rakhine State of Myanmar
  - (d) Developed countries at the forum managed to include a reference directed towards all developing countries to "make contributions for mobilising climate finance in order to bypass fossil fuelled development"
- The government and the judiciary have agreed that "this" would be the conceptual foundation for legislation protecting privacy in the form of the new Data Protection Bill. "This" in the above statement refers to
  - (a) Recommendations of the Group of Experts headed by Justice A.P. Shah
  - (b) Recommendations made by Kharak Singh Committee
  - (c) NITI Aayog's study of privacy laws promulgated by various countries
  - (d) The Universal Declaration of Human Rights

Solution: c.

- "The country-specific amendment to the draft declaration was proposed at the eleventh hour by selective countries which referred to the violence in Rakhine state of Myanmar. India argued that specifying a particular country is unjustified as this Forum is focussed on SDGs (Sustainable Development Goals) and inclusive development for all countries based on cooperative and collaborative approach to achieve the 2030 Agenda for the world," a press release said.
- India also said, "Never before 'country-specific' issues have been included in the declaration as these dilute the objective of these Forums which require unity and focussed efforts of all the countries,".

http://www.thehindu.com/todays-paper/tpnational/india-keeps-off-balideclaration/article19639837.ece;

http://indianexpress.com/article/india/india-refuses-to-join-declaration-of-international-meet-against-myanmar-4833551/;

Solution: a.

The government recently set up a five-member committee chaired by former Supreme Court judge, Justice (retd.) **B.N. Srikrishna**, to draw up a draft Data Protection Bill. The Bill, if made law, will be India's first exclusive statute providing protection to online users' personal data from breach by state AND non-state players.

One of the primary guiding factors for the committee would be the exhaustive report submitted in October 2012 by a group of experts on privacy led by former Delhi High Court Chief Justice A.P. Shah, which was constituted by the erstwhile Planning Commission. Both the government and the court have agreed that this would be the "conceptual foundation for legislation protecting privacy" in the form of the new Data Protection Bill.

**Additional Information**: One of the rights enshrined in the UN Declaration of Human Rights – "No one shall be subjected to arbitrary interference with his privacy, family, home, or correspondence."

http://www.thehindu.com/opinion/op-ed/for-a-robust-data-protection-regime/article19638172.ece;

## **SEPTEMBER 9, 2017**

- 1. Consider the following statements about the 'Global Alliance for Literacy (GAL) within the Framework of Lifelong Learning':
  - 1. It is a multi-stakeholder partnership
  - 2. India is a part of this initiative

Solution: c.

The theme announced by UNESCO for International Literacy Day (ILD) 2017 is `Literacy in a digital world'. SDG 4 ("Ensure inclusive and equitable quality education and

3. It is a UNESCO-led initiative

Which of the statements given above is/are correct?

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

promote lifelong learning opportunities for all") has targets that encompass many different aspects of education.

- The National Literacy Mission Authority (NLMA) is the nodal agency for overall planning, management and funding of adult education programmes and institutions. It is an autonomous wing of the Ministry of Human Resource Development.
- The NLMA started celebrating ILD every year from 1988 onwards. The occasion of ILD is used for raising public awareness to eradicate illiteracy and create environment in favour of adult education programmes.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170592;

As literacy will play a direct or indirect role in achieving many of the Sustainable Development Goals (SDGs), GAL aims to help Member States make accelerated progress towards the 2030 Agenda for Sustainable Development. The Alliance, which will be composed of experts and representatives of UN and government agencies, donors, national and international non-governmental organizations, and the private sector, will work towards improving literacy for sustainable development through concrete action and tangible outcomes.

http://www.uil.unesco.org/system/files/global-alliancefor-literacy-information-note.pdf

Improvisation and reference for Statement 2:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170618;

- **2.** Consider the following statements:
  - 1. Mosses are effective at trapping pollutants such as particulate matter
  - 2. Mosses lack a root system, so they rely on deposition from the atmosphere for their mineral nutrition

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

Mosses have been used for decades to monitor air quality.

- Mosses lack a root system, so they rely on deposition from the atmosphere for their mineral nutrition. They are especially well-suited for air-quality assessment as they are very effective at trapping pollutants, both particulate and gaseous.
- Traditional air-pollution measurement systems require a range of detectors to measure the presence of different pollutants. However, moss simply retains all the different pollutants within its structure, so it is easily processed to measure their presence. The absorption process itself is also a passive one – it needs no electricity supply or complex equipment to function.

Improvisation: <a href="http://www.bbc.com/news/av/magazine-40433931/unleashing-the-power-of-moss-to-clean-cities">http://www.bbc.com/news/av/magazine-40433931/unleashing-the-power-of-moss-to-clean-cities</a>;

https://ec.europa.eu/programmes/horizon2020/en/news/using-moss-measure-air-pollution;

- **3.** Which one of the following countries' experience would India preferably have to emulate in order to reduce its overall use of farm antibiotics?
  - (a) USA
  - (b) Netherlands
  - (c) China
  - (d) United Kingdom

- **4.** Consider the following statements:
  - The International Energy Agency Greenhouse Gas Research and Development Programme funds research into technologies that seek to mitigate global warming
  - 2. Construction of moveable storm surge barriers helps mitigate global warming

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

Solution: b.

A mains-oriented question. UK and USA have recently introduced measures to reduce the use of farm antibiotics, and so has China. Netherlands however has made rapid progress in this respect since 2009, and where farmers willingly adopted practices to reduce usage of farm antibiotics.

Over the past eight years or so, the Netherlands has made very large cuts in its overall use of farm antibiotics. A decade ago, the Netherlands was a high user of farm antibiotics, and an exceptionally low user of antibiotics in human medicine. However, following the emergence of new types of resistant bacteria in farm animals (in particular, MRSA and a highly resistant type of E. coli called ESBL E. coli) which appeared to be transferring to humans and causing infections, various initiatives were introduced to cut farm antibiotic use.

Improvisation: <a href="http://www.bbc.com/news/av/magazine-41132589/how-one-girl-s-illness-changed-what-a-nation-eats">http://www.bbc.com/news/av/magazine-41132589/how-one-girl-s-illness-changed-what-a-nation-eats</a>;

http://www.saveourantibiotics.org/media/1751/farm-antibiotic-use-in-the-netherlands.pdf;

Solution: a.

Construction of any kind of storm surge barrier to prevent flooding in a coastal area is an adaptation mechanism, not mitigation. Responding to climate change involves a two-pronged approach:

- Mitigation reducing climate change involves reducing the flow of heat-trapping greenhouse gases into the atmosphere, either by reducing sources of these gases (for example, the burning of fossil fuels for electricity, heat or transport) or enhancing the "sinks" that accumulate and store these gases (such as the oceans, forests and soil).
- Adaptation adapting to life in a changing climate –
  involves adjusting to actual or expected future
  climate. The goal is to reduce our vulnerability to the
  harmful effects of climate change (like sea-level
  encroachment, more intense extreme weather
  events or food insecurity). It also encompasses
  making the most of any potential beneficial
  opportunities associated with climate change (for
  example, longer growing seasons or increased yields
  in some regions).

Source and Improvisation:

http://www.thehindu.com/todays-paper/tpinternational/india-could-embrace-co2-capturetechnology/article19647581.ece;

http://ieaghg.org;

- **5.** The 'Saffir-Simpson Scale', sometimes in the news, is associated with which one of the following issues/phenomenon?
  - (a) Green House Gas emissions
  - (b) Antimicrobial Resistance
  - (c) Vulnerability of Central Banks to debilitating economic contingencies
  - (d) Western Hemispherical Tropical Cyclones

https://climate.nasa.gov/solutions/adaptationmitigation/;

Solution: d.

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage.

 Additional Information: The only difference between a hurricane, a cyclone, and a typhoon is the location where the storm occurs. In the Atlantic and Northeast Pacific, the term "hurricane" is used. The same type of disturbance in the Northwest Pacific is called a "typhoon" and "cyclones" occur in the South Pacific and Indian Ocean.

https://oceanservice.noaa.gov/facts/cyclone.html;

Indian Express Explained Page, 8th September 2017;

http://www.popsci.com/what-hurricane-categoriesmean;

In the news: Frequently occurring hurricanes in the Americas over the past few weeks.

## **SEPTEMBER 11, 2017**

- **1.** Which one of the following statements is *incorrect*?
  - (a) The GST (Compensation to States) Act, 2017 was recently amended to increase the maximum rate at which compensation cess can be levied on some motor vehicles
  - (b) Leapfrogging to Bharat Stage–VI vehicle emission norms from BS-IV
  - (c) Benefits under FAME scheme were recently discontinued for mild hybrid technology based vehicles
  - (d) Effective tax rate on hybrid vehicles remains the same today as it was prior to the roll-out of the GST regime

Solution: d.

A mains-oriented question.

After 18 months of sudden rule changes that left many carmakers scrambling, some of the industry's largest players are calling on the Indian Government to set clear, stable policies — or face the risk of delays to major investment.

- The latest setback came last week, when the cabinet approved a move to increase the maximum levy on luxury cars and sport utility vehicles (SUVs) to as much as 25%.
- Companies are waiting for clarity on the electric vehicles policy before it decides on any products and strategy.
- Other changes that have caught automakers by surprise include a temporary court ban on the sale of large diesel cars in New Delhi last year and a tax increase for hybrid cars from July. Hyundai, as a result, has dropped its plan to introduce hybrid cars in India and will now look at bringing in electric cars.

http://www.thehindu.com/business/Industry/carmakersseek-stable-policies/article19646068.ece;

http://economictimes.indiatimes.com/industry/auto/news/passenger-vehicle/cars/gst-cess-hike-in-cars-to-take-effect-from-tomorrow/articleshow/60450429.cms;

- **2.** Consider the following statements:
  - 1. Income inequality in India is at its highest level since the year the Income Tax Act was passed
  - 2. The 'World Inequality Report' is annual publication of the international confederation Oxfam

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: a.

A part-mains and part-prelims oriented question.

According to a research paper titled 'Indian income inequality, 1922-2014: From British Raj to Billionaire Raj?' by renowned economists *Thomas Piketty* and *Lucas Chancel*, income inequality in India is at its highest level since 1922, the year the Income Tax Act was passed.

- The top 1% of earners captured less than 21% of total income in the late 1930s, before dropping to 6% in the early 1980s and rising to 22% today.
- China also liberalised and opened up after 1978, and in doing so, experienced a sharp income growth as well as a sharp rise in inequality. This rise, however, stopped in the 2000s so that inequality is currently at a lower level there than in India (top 1% income share in China today is 14%).
- In December, they will release the first 'World Inequality Report' where they will compare India's inequality trajectory with other emerging, industrialised and low-income countries and suggest ways to tackle global and national inequality.

http://www.thehindu.com/opinion/interview/incomeinequality-in-india-at-its-highest-level-since-1922/article19645881.ece

- The expedition of the Indian Naval Sailing Vessel Tarini crew can help realise/promote which of the following Indian Constitutional provisions?
  - 1. For the state to foster respect for international law and treaty obligations
  - 2. For the state to protect and improve the environment
  - 3. For every citizen to renounce practices derogatory to the dignity of women

Select the correct answer using the code given below:

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

Solution: b.

Statement 2 is a DPSP and statement 3 is a Fundamental Duty. While Statement 1 is a DPSP, **Navika Sagar Parikrama** will not in anyway realise/promote it in as direct a manner as it would the provisions mentioned in statement 2 and 3.

Smt. Nirmala Sitharaman recently flagged-off Indian Naval Sailing Vessel Tarini (INSV Tarini). This is the first-ever Indian circumnavigation of the globe by an all-women crew and shall attempt to circumnavigate the globe on Indian Navy's sailing vessel INSV Tarini.

- During the voyage, the crew would monitor and report marine pollution on the high seas, as also interact extensively with local PIOs during various port halts to promote Ocean sailing.
- The expedition titled 'Navika Sagar Parikrama', is in consonance with the National policy to empower women to attain their full potential. It also aims to help discard the societal attitudes and mindset towards women in India by raising visibility of their participation in challenging environment.
- Sailing encourages the use of environment friendly non-conventional renewable energy resources and this expedition therefore aims at harnessing the renewable energy.

- **4.** With reference to 'Radio Frequency Identification Technology (RFID) Tag', which of the following statements is/are correct?
  - 1. It serves the same purpose as a barcode
  - 2. It can be read from up to a few metres away
  - 3. It does not need to be within direct line-of-sight of the reader to be read/tracked

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

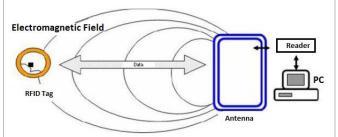
http://pib.nic.in/newsite/PrintRelease.aspx?relid=170645

Solution: d.

Imagine going to the grocery store, filling up your cart and walking right out the door. No longer will you have to wait as someone rings up each item in your cart one at a time. Instead, these RFID tags will communicate with an electronic reader that will detect every item in the cart and ring each up almost instantly.

- An RFID tag serves the same purpose as a barcode and the magnetic strip behind your credit card: it provides for unique identification ('fingerprint') of the object to which the tag is affixed to. But its advantages over barcodes (statements 2 and 3) enables it to be used for a wide variety of applications.
- Bar code is a read-only technology, meaning that it cannot send out any information. RFID tags are an improvement over bar codes because the tags have read and write capabilities. Data stored on RFID tags can be changed, updated and locked.
- RFID technology uses radio waves to read and capture information stored on an RFID tag attached to an object. A tag can be read from up to several feet away and does not need to be within direct line-of-sight of the reader to be tracked (unlike in the case of a barcode, wherein you may have noticed shopkeepers struggling at times to get their barcode scanners to read product barcodes). These tags generate radio waves.
- There are active RFID tags (battery-powered) and passive tags (these use electromagnetic energy from an RFID reader to generate the radio waves).

<u>Additional Information</u>: RFID tags are being used by the government for various purposes; these include, among others: **FASTags** (electronic toll collection), tagging at gates of all ports to enable seamless entry-exit of trucks, Logistics Data Bank project, where every container is attached to an RFID tag and then tracked through RFID readers — aiding importers and exporters in tracking their goods in transit, etc.



http://www.epc-rfid.info/rfid;

http://electronics.howstuffworks.com/gadgets/high-tech-gadgets/rfid.htm/printable;

**5.** Consider the following statements:

- 1. Catalonia has has its own language, 'Catalan'
- 2. Catalonia is located in the Iberian Peninsula 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

#### Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170634;

Solution: c.

A part-mains and part-prelims oriented question. Both statements are correct. Catalonia encompasses the **northeastern provinces** of Spain. It is an **autonomous region**, with **Barcelona** as its capital.

### Why many Catalans want independence:

- Catalonia, which makes up 16% of Spain's population, accounts for almost 19% of Spanish GDP but there is a widespread feeling that the central government takes much more than it gives back. This sense of injustice fuels the independence campaign. While some Catalans may accept their tax money being used to help ailing southern regions like Andalusia, there is a perception that their own public services are being underfunded at the same time.
- Catalan became the joint official language along with Spanish after the return to democracy (post-dictator Francisco Franco's death). But in recent years Spain has challenged its status as the first language of instruction in schools.
- With its **own language**, a recorded history of more than 1,000 years as a distinct region, and a population nearly as big as Switzerland's (7.5 million), Catalonia lays a strong claim to nationhood.
- It also happens to be a vital part of the Spanish state, locked in since the 15th Century, and subjected periodically to repressive campaigns to make it "more Spanish".



http://www.bbc.com/news/world-europe-29478415;

https://www.britannica.com/place/Iberian-Peninsula;

#### Improvisation:

http://www.thehindu.com/opinion/editorial/spanishsteps-on-the-catalan-secessionreferendum/article19656046.ece

## **SEPTEMBER 12, 2017**

- 1. The Phillips curve, an economic concept, shows that Inflation and unemployment have a/an
  - (a) Initially a proportional, but after a 'critical' level of inflation, an inverse relationship
  - (b) Unstable but always inverse relationship
  - (c) Unpredictable relationship
  - (d) Stable and inverse relationship

Solution: d.

The Phillips curve is an economic concept developed by A. W. Phillips showing that **inflation and unemployment** have a **stable and inverse relationship**. The theory states that with economic growth comes inflation, which in turn should lead to more jobs and less unemployment. However, the original concept has been somewhat disproven empirically due to the occurrence of stagflation in the 1970s, when there were high levels of both inflation and unemployment.

http://www.investopedia.com/terms/p/phillipscurve.asp;

http://www.thehindu.com/todays-paper/tp-opinion/why-the-phillips-curve-does-not-work/article19668153.ece;

- **2.** The "aid" model of development may
  - 1. Perpetuate resource dependency
  - 2. Trigger the "Dutch disease"

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.

The key word in the question is "may".

- Paradox of Aid refers to the paradoxical situation wherein countries that are blessed with good institutions to achieve economic growth have no need for foreign aid, while countries that possess poor institutions that inhibit their growth do not benefit from any amount of foreign aid.
- Research has found it difficult to identify a robust positive relationship between aid and growth. One hypothesis is that aid perpetuates resource dependency, in the sense that since revenues flow in from outside, recipient countries may fail to develop their own tax bases or their institutions more generally. Another potential downside of aid is that it could trigger "Dutch disease", named after the impact that discovery of natural gas in the North Sea had on the domestic economy in the Netherlands. This windfall cause the real exchange rate to appreciate as the extra income was spent domestically, pushing up the price of non-tradable such as services geared to the local economy.

 $\frac{\text{http://www.thehindu.com/opinion/op-ed/in-economics-}}{\text{what-is-paradox-of-aid/article19664327.ece}};$ 

Chapter 13, Economic Survey Volume 1 (2016-17);

- **3.** Legal regulations for commercial unmanned aerial vehicles in the United States of America are administered by
  - (a) Federal Aviation Administration (equivalent to India's Ministry of Civil Aviation)
  - (b) Department of Homeland Security (Ministry of Home Affairs)
  - (c) Department of State (Ministry of External Affairs)

Solution: a.

- The Ministry of Civil Aviation (MoCA) has raised a few objections over the Home Ministry's bid to frame a new law to regulate unmanned aircraft systems (UAS), loosely referred to as drones.
- The Director General of Civil Aviation (DGCA) has told the Home Ministry that licensing and safety of all aircraft — manned or unmanned — was their domain.
   As per International Civil Aviation Organisation

(d) Office of Urban Affairs (Ministry of Urban Affairs and Poverty Alleviation)

- guidelines, aircraft, whether manned or unmanned, does not affect its status as an aircraft and the safety oversight is the responsibility of DGCA.
- The need for a new law arose after it received representations from a couple of industrial houses who wanted to use UAVs to monitor oil pipelines and coalfields.

#### Improvisation:

http://www.thehindu.com/news/national/aviation-home-ministries-spar-over-regulating-drones/article19665327.ece?homepage=true;

https://www.faa.gov/uas/faqs/;

- **4.** The 'Tokyo Convention 1963', recently in the news, was seen in the context of
  - (a) No-Fly-List of unruly passengers
  - (b) Mumbai-Ahmedabad bullet train project
  - (c) Navika Sagar Parikrama
  - (d) Exodus of Rohingyas from Myanmar

Solution: a.

The DGCA has revised the relevant sections of the Civil Aviation Requirement (CAR Section 3, Series M, Part VI on "Handling of Unruly Passengers) to bring in a deterrent for passengers who engage in unruly behaviour on board aircrafts. The revision has been done in accordance with the provisions of Tokyo Convention 1963.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170619;

Improvisation:

http://www.thehindu.com/opinion/editorial/in-the-air/article19664192.ece;

- **5.** With reference to 'CARB-X', consider the following statements:
  - 1. It is a NewSpace enterprise
  - 2. It is focused on research and development projects to address the problem of "Gramnegative" bacteria

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.

A Bengaluru firm has become India's first to receive the international CARB-X grant to develop antibiotics to treat hospital-acquired infections.

- CARB-X, or <u>Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator</u>, is a public-private international partnership (US Dept. of Health and Human Services, and London-based biomedical research chairty Wellcome Trust), which was set up in 2016 to focus on innovations to improve diagnosis and treatment of drug-resistant infections. It grew out of President Barack Obama's 2015 Combating Antibiotic Resistant Bacteria (CARB) initiative.
- Bacteria are classified as Gram-positive and Gram-negative. Gram-negative bacteria are responsible for 20-25% of infections, and are multi drug resistant. All CARB-X funding so far is focused on projects to address the most resistant "Gram-negative" bacteria.

Additional Information: Technically, antibiotic resistance is a subset of antimicrobial resistance (AMR), which is a wider category that covers resistance in all microorganisms — bacteria, parasites, viruses and fungi — to drugs. But as antibiotics (drugs against bacteria) are the commonest antimicrobials, the two terms are often used interchangeably.

Read more (ESKAPE pathogens, Delhi Declaration etc.) at <a href="http://indianexpress.com/article/explained/why-infections-picked-up-in-hospitals-are-the-big-threat-today-how-world-is-trying-to-cope-4837567/">http://indianexpress.com/article/explained/why-infections-picked-up-in-hospitals-are-the-big-threat-today-how-world-is-trying-to-cope-4837567/</a>;

## **SEPTEMBER 13, 2017**

- **1.** Consider the following statements:
  - 1. The Pamir Knot is situated in the 'graveyard of empires'
  - 2. Iran does not share its borders with any Central Asian Republic

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: a.

Iran and Turkmenistan share borders.

Afghanistan is a notoriously difficult country to govern. Empire after empire, nation after nation have failed to pacify what is today the modern territory of Afghanistan, giving the region the nickname "Graveyard of Empires," even if sometimes those empires won some initial battles and made inroads into the region.

Afghanistan is particularly hard to conquer primarily due to the intersection of three factors. First, because Afghanistan is located on the main land route between Iran, Central Asia, and India, it has been invaded many times and settled by a plethora of tribes, many mutually hostile to each other and outsiders. Second, because of the frequency of invasion and the prevalence of tribalism in the area, its lawlessness lead to a situation where almost every village or house was built like a fortress, or galat. Third, the physical terrain of Afghanistan makes conquest and rule extremely difficult, exacerbating its tribal tendencies. Afghanistan is dominated by some of the highest and more jagged mountains in the world. These include the Hindu Kush mountain range and the Pamir Knot — where the Hindu Kush, Pamir, Tian Shan, Kunlun, and Himalayas all meet is situated in Badakhshan in northeast Afghanistan.

As both the British and Russians have learned, while it is possible to conquer territory in Afghanistan temporarily, and defeat Afghans militarily in open battle, it is virtually impossible to hold the region down for long, when it is filled with guerrillas, tribes, and castles that can constantly weigh down a foreign power. The people of Afghanistan have nowhere to go, and can fight their whole lives a luxury that outsiders do not have.



http://thediplomat.com/2017/06/why-is-afghanistan-the-graveyard-of-empires/

http://www.thehindu.com/todays-paper/tpinternational/a-battleground-not-a-graveyard-forempires/article19590678.ece

http://www.thehindu.com/opinion/op-ed/guardian-of-afghan-culture/article19672250.ece

- **2.** Which one of the following states of Myanmar does *not* share its border with any Indian state?
  - (a) Rakhine state
  - (b) Chin state
  - (c) Sagaing division
  - (d) Kachin state

Solution: a.

"Manipur Chief Minister N. Biren Singh had asked police and district administrations in Tengnoupal and Churachandpur to beef up security to check infiltration of Rohingya Muslims." ... Rakhine State is where most of the Rohingya Muslims have faced persecution.



## Improvisation:

http://www.thehindu.com/news/national/otherstates/security-beefed-up-on-manipurborder/article19672235.ece;

- **3.** Which of the following initiatives/policies can help achieve objectives similar to that of the Vishwajeet Scheme?
  - 1. Higher Education Finance Agency
  - 2. Strategic Partnership Model
  - 3. Uchchatar Avishkar Yojana

Solution: c.

The Strategic Partnership Model has been in the news in recent times related to the issue of indigenous manufacturing of defence equipment.

**Vishwajeet scheme**, which entailed the provision of Rs. 1,250 crore to each of the top seven IITs over a period of five years to upgrade infrastructure, hire foreign faculty,

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

and collaborate with foreign institutions to break into the top league in global rankings, has reportedly been shot down by the Finance Ministry. The MHRD Minister said that the Higher Education Finance Agency (HEFA), the Uchchatar Avishkar Yojana, and the Prime Minister's proposed scholarships of Rs. 75,000 a month are schemes that serve similar purpose as the Vishwajeet scheme.

- Higher Education Financing Agency (HEFA) to give a major push for creation of high quality infrastructure in premier educational institutions. All the Centrally Funded Higher Educational Institutions would be eligible for joining as members of the HEFA.
- The Uchhatar Avishkar Yojana (UAY) was launched to promote industry-specific need-based research projects so as to keep up the competitiveness of the Indian industry in the global market. All the IITs have been encouraged to work with the industry to identify areas where innovation is required and come up with solutions that could be brought up to the commercialization level. The projects should have collaboration between the academia and industry – within or outside India.

http://www.thehindu.com/todays-paper/tpnational/vishwajeet-scheme-a-nonstarter/article19673713.ece

- **4.** Consider the following statements about the annual 'Balzan Prizes':
  - 1. A special characteristic of this prize is that it ensures the recognition of new or emerging fields of study that may have been overlooked by other international awards
  - 2. For the first time, an Indian recently has won this award

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: a.

Wikipedia states that Bina Agarwal is an Indian citizen, and some media outlets are referring to her as an "Indian Economist". The Balzan Prize Foundation website itself refers to her nationality as "India/UK". This however is not very relevant for determining the correctness of Statement 2, as Mother Teresa was awarded this prize many decades ago as an Indian citizen.

 Economist Bina Agarwal is a professor at the University of Manchester, who was recognised in the gender studies category for her "heroic" work studying women's contributions to agriculture in India.

#### Few points about the Balzan Prize:

- The Balzan Prizes are chosen by the General Prize
  Committee in two general subject areas: Humanities

   Literature, Moral Sciences and the Arts; and
   Sciences: the Physical, Mathematical and Natural
   Sciences and Medicine.
- The four Balzan Prizes, two per category, are awarded to scholars, artists and scientists who have distinguished themselves in their fields on an international level
- The subject areas in which the awards are granted are rotated, and this special characteristic of the Balzan

- Prize ensures the promotion and recognition of new or emerging fields of study or research that may have been overlooked by other international awards.
- Since 2001, prizewinners must destine half of the prize to finance research projects that are preferably carried out by young scholars or scientists.

http://www.balzan.org/en/balzan-prize

http://www.thehindu.com/sci-tech/health/two-us-scientists-awarded-balzan-prize/article19672457.ece

- 5. In what is considered as an expansion of legal rights for nonhuman animals, it was decided that a share of future revenue of selfies clicked by a monkey in Indonesia in 2011 would be utilised to protect its species. In this context, which one of the following personalities from the 20th century authored the work, 'Animal Liberation'?
  - (a) Peter Singer
  - (b) Rukmini Devi Arundale
  - (c) Maulana Abul Kalam Azad
  - (d) Mary Wollstonecraft

Solution: a.

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This is a mains-oriented question. The link provided below contains a few excerpts from Peter Singer's work, 'Animal Liberation'. Here is one important statement of his: "The principle of the equality of human beings is not a description of an alleged actual equality among humans: It is a prescription of how we should treat human beings." Extending this argument, he goes on to propose that animals too deserve to be treated as equals.

Rukmini Devi Arundale

In 1952, when she was a Member of the Rajya Sabha, she introduced a private member's bill to replace the existing Prevention of Cruelty to Animals Act of 1890. Her impassioned speech in 1954 when the Bill was placed before the House led to Pandit Jawaharlal Nehru responding by saying: "Of course, it is as well for us, absolutely right for us, to consider the question of preventing any cruelty to animals, not only because of the animals themselves but much more so, as the Honourable member said, because of the human beings involved in it. It is a debasing thing for the person who indulges in this cruelty. If we go back to the history of civilization, it has been one of struggle and one of growth of the idea of compassion. I entirely agree with the Hon'ble member the Mover that one test of civilization - a very major test - is the growth of this feeling and practice of compassion." Pandit Nehru set up a Committee to go into the matter and also requested Rukmini Devi to withdraw her Bill stating that it would be the pleasure of his Government to take up such an important matter. Rukmini Devi graciously withdrew her Bill immediately and a similar Bill was later introduced by the Government.

It was thus that the Prevention of Cruelty to Animals Act, 1960, came into being. For the first time, subjects such as animals in research and performing animals were covered by the Act and a statutory body, the Animal Welfare Board of India (AWBI), came into existence to oversee the animal welfare work in the country and to recommend to the Government various measures to prevent cruelty to and promote the welfare of animals. India is the only country in the world to have such a Board.

Read the text provided in the image for Rukmini Devi Arundale's contribution to passage of the Prevention of Cruelty to Animals Act 1960.

From 2015:

https://www.peta.org/about-peta/learn-about-peta/ingrid-newkirk/animal-liberation/

#### Improvisation:

http://www.thehindu.com/sci-tech/energy-and-environment/no-more-monkeying-around-macaque-selfie-case-settled/article19672351.ece

## **SEPTEMBER 14, 2017**

- **1.** In which of the following regions of India can one find Neolithic remains?
  - 1. Northeast
  - 2. South
  - 3. Ganga Plain
  - 4. North

Select the correct answer using the code given below:

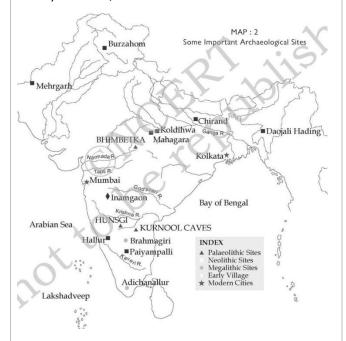
- (a) 1, 2 and 4 only
- (b) 1 and 3 only
- (c) 2, 3 and 4 only
- (d) 1, 2, 3 and 4

Solution: d.

Neolithic remains are found in various parts of India. These include the Kashmir valley, Chirand in Bihar, Belan valley in Uttar Pradesh and in several places of the Deccan. The important Neolithic sites excavated in south India are

Maski, Brahmagiri, Hallur and Kodekal in Karnataka, Paiyampalli in Tamil Nadu and Utnur in Andhra Pradesh.

Page 14, Class 6, NCERT; Page 10, Class 11 Tamil Nadu History Textbook;



#### Improvisation:

http://indianexpress.com/article/explained/neolithic-potof-joy-promises-to-shine-light-on-prehistory-in-kashmirbeyond-4842511/

- **2.** Consider the following statements:
  - Mature or specialised cells can be reprogrammed to become pluripotent (viz., stem cells)
  - 2. Induced pluripotent stem cells were first developed by the Japanese

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.

It's easier to remember that India and Japan are collaborating on stem cell research, when you know that the Japanese first developed induced pluripotent stem cells.

"...the two countries (India and Japan) have signed a host of agreements on to further cooperation in science and technology, including research into stem-cells for making bone-marrow transplants more accessible... The aim of the programme is to develop infrastructure and expertise for India to be a competitive force in regenerative medicine and induced pluripotent stem cell biology. The focus of the collaboration is on developing treatments for sickle-cell

anaemia, Beta thalassemia and brain disorders, and creating a haplobank relevant to Indian populations..."

There are different types of stem cells. One comes from the tissue of embryos, another from adult organs and the third refers to induced pluripotent stem cells – this method was developed in 2006 by Shinya Yamanaka from Japan for which he was awarded the Nobel Prize in Physiology or Medicine in 2012.

- Our lives begin when a fertilized egg divides and forms new cells that, in turn, also divide. These cells are identical in the beginning, but become increasingly varied over time. It was long thought that a mature or specialized cell could not return to an immature state, but this has now been proven incorrect. In 2006, Shinya Yamanaka succeeded in identifying a small number of genes within the genome of mice that proved decisive in this process. When activated, skin cells from mice could be reprogrammed to immature stem cells, which, in turn, can grow into different types of cells within the body.
- This method offers the benefits of embryonic stem cells without the ethical problems, but there may be a cancer risk as a result of the reprogramming.
- Additional Information: A 'haplobank' refers to a specially maintained collection of embryonic cells that can, in theory, be directed to become any kind of cell and thus progenitor of replacement organs.

http://www.bbc.com/news/health-11518539

https://www.nobelprize.org/nobel prizes/medicine/laure ates/2012/yamanaka-facts.html

## Improvisation:

http://www.thehindu.com/news/national/india-japan-sign-pact-on-stem-cell-research/article19678199.ece

- **3.** The 'Kaptai dam' is sometimes mentioned in the news with reference to
  - (a) Chakma tribals
  - (b) Rohingya Muslims
  - (c) Flooding in the state of Bihar
  - (d) Flooding in the state of Assam

Solution: a.

Whenever the issue associated with Chakma and Hajong people appears in the news, the cause for their migration to India is mentioned. They were originally residents of the Chittagong Hill Tracts in erstwhile East Pakistan who left their homeland when it was submerged by the Kaptai dam project in the 1960s. The Chakmas, who are Buddhists, and Hajongs, who are Hindus, also allegedly faced religious persecution. They entered India through the then Lushai Hills district of Assam (now Mizoram).

http://www.thehindu.com/todays-paper/tp-national/chakma-hajong-issue-still-open/article19679870.ece

http://www.thehindu.com/news/national/home-ministry-clears-granting-citizenship-to-chakma-hajong-refugees/article19675921.ece

- **4.** Which one of the following temples in Myanmar restored by the Archaeological Survey of India did our Prime Minister most recently visit?
  - (a) Thiruketeeswaram temple
  - (b) Ta Phrom temple
  - (c) Ananda temple
  - (d) Angkorwat temple

Solution: c.

India has deep cultural ties with southeast Asian nations, and from time to time carries out restoration work at temples overseas. Funds are released through the Ministry of External Affairs as part of India's diplomatic outreach to these nations. The ASI, under the Ministry of Culture, is the implementing agency. Work can go on for decades, and is often monitored by third-party agencies such as the UNESCO World Heritage Committee. Costs include that of deputing ASI staff and artisans, and the MEA releases funds, through the local Indian mission, based on utilisation on the ground. The countries where the ASI works sometimes pitch in with help on the board and lodging of the restoration team.

http://indianexpress.com/article/explained/anandatemple-ta-prohm-cham-monuments-thiruketeeswaramhow-india-is-restoring-cultural-symbols-beyond-itsshores-temples-4842494/

Also, refer to Class 11 TN History Textbook to read about 'Spread of Indian Culture to Other Asian Countries';

- **5.** Consider the following statements about the 'Smart Streets Lab' programme:
  - Its aim is to build networks of intelligent, "ondemand" lighting systems in public spaces that only light up in the presence of a person or bicycle
  - 2. It was recently launched in Telangana by the World Resources Institute in association with the state government

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 Government of Telangana and WRI India have jointly organized the Smart Streets Lab — Telangana to pilot innovative road-safety and women-safety solutions by leveraging new developments in technology and IT to transform Hyderabad's streets. The programme will largely be data-driven.

http://wricitieshub.org/smartstreetslab

http://www.livemint.com/Politics/we7J8xxjnJwEy39qkiRxkJ/Telangana-govt-launches-Smart-Streets-Lab-in-Hyderabad-to.html

Improvisation:

http://vikaspedia.in/education/current-affairs/August\_2017\_National\_Ca.pdf

## **SEPTEMBER 15, 2017**

- **1.** Consider the following statements in the context of exploration and production activities of hydrocarbons:
  - 1. India's sedimentary basins cover an area roughly equalling India's land surface area
  - 2. Most of India's sedimentary basins have established commercial production

Solution: a.

India has 26 sedimentary basins covering an area of 3.14 million square kilometres. The sedimentary basins of India, onshore and offshore up to the 200m isobath, have an areal extent of about 1.79 million sq. km. In the deepwater beyond the 200m isobath, the sedimentary area has been estimated to be about 1.35 million sq. km. Thus, the total works out to 3.14 million sq. km (India's land surface area is 3.24 million sq. km.). At the moment, only about 15%

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

production.

area of sedimentary basins have established commercial

http://petroleum.nic.in/sites/default/files/basins 0.pdf

Infograph

In the news:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170710

- 2. Consider the following statements:
  - 1. Wood is a major renewable energy resource
  - REDD+ (Reducing **Emissions** from Deforestation and forest Degradation) is a change mitigation programme developed by the US Agency for International Development and India's Environment Ministry

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: a.

http://www.un.org/en/events/forestsday/

Wood provides the world with more energy than solar, hydroelectric or wind power, accounting for roughly 45 percent of current global renewable energy supply.

http://www.unredd.net/about/what-is-redd-plus.html

**REDD+** is a mechanism developed by Parties to the United Nations Framework Convention on Climate Change (UNFCCC). It creates a financial value for the carbon stored in forests by offering incentives for developing countries to reduce emissions from forested lands and invest in lowcarbon paths to sustainable development. Developing countries would receive results-based payments for results-based actions. REDD+ goes beyond simply deforestation and forest degradation, and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

### Infograph

Improvisation and source -

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170685

The Partnership for Land Use Science (Forest-Plus) is a joint programme by USAID and MoEFCC to strengthen capacity for REDD+ implementation in India.

Additional Source:

http://www.moef.nic.in/sites/default/files/JFMC%20Conv ention%20Report.pdf

- 3. As per the National Civil Aviation Policy, 2016, with which of the following countries can India have an 'Open Sky' air services agreement on a reciprocal basis?
  - Sri Lanka
  - 2. Japan
  - United Kingdom

Select the correct answer using the code given below:

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

Solution: d.

As per the Policy, India can enter into 'Open Sky' ASA on a reciprocal basis only with SAARC countries and countries located beyond 5000 km from Delhi.

From 2016:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=146238

Improvisation:

http://www.thehindu.com/todays-paper/tpnational/indojapan-open-sky/article19687123.ece (d) 1, 2 and 3

- **4.** 'Inclusive India Initiative' is
  - (a) A mass awareness campaign of the National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities
  - (b) A programme of the National Literacy Mission Authority to promote digital literacy among adults
  - (c) A DIPP initiative to build a strong ecosystem for nurturing innovation and startups in rural India that are at the forefront of sustainable economic growth
  - (d) None of the above
- 5. India has three distinct and genetically connected tiger populations. These are in which of the following regions?
  - 1. South India
  - 2. Central India
  - 3. Ranthambore Tiger Reserve

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: a.

Inclusive India Initiative is a mass awareness campaign of the National Trust aimed at reducing the barriers for persons with intellectual and developmental disabilities, by making the workplaces, public zones and educational institutes more inclusive and accessible. Aligned with the goals of the United Nations Convention for the Rights of People with Disabilities (UNCRPD), this initiative aims at full participation by persons with intellectual and developmental disabilities (PwIDDs) in their schools, colleges, communities and workplaces.

From June:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=164434 http://pib.nic.in/newsite/PrintRelease.aspx?relid=170686

Solution: d.

A mains-oriented question.

Based on a study of samples from tiger post-mortems and collection from live tigers, a new study has found that India has three distinct and genetically connected tiger populations. These are in: south India; central India, the Terai and north-east India; and in Ranthambore. The Ranthambore population has the least genetic diversity and may suffer from isolation. There are two issues here: populations require genetic flow to remain robust; securing healthy tiger numbers are not enough for tiger health. Second, we are in an age of active management. When tigers go extinct in an area, they are flown in or carried in from other areas — as was done in the case of Panna (Madhya Pradesh) and Sariska (Rajasthan). It appears, prima facie, that the problem is solved. But are these management devices a suitable proxy for genetic flow through actual habitat corridors?

Genetically isolated or stranded populations can suffer from genetic depression, and subsequently, mutations and ailments. This has already happened to species which have had stranded populations such as the Florida panther and possibly the Great Indian Bustard. Wildness and wildlife conservation also include preserving ecological processes which hold their own evolutionary potential. A robust forest or habitat corridor between tiger reserves is an important means of maintaining these ecological processes and may hold the key to the survival and adaptation of the species.

http://www.thehindu.com/opinion/op-ed/creating-corridors-of-certainty/article19685786.ece

## **SEPTEMBER 16, 2017**

- 1. Consider the following statements with reference to India's external debt:
  - 1. Its maturity pattern shows the predominance of long-term borrowings
  - 2. Its absolute stock has decreased every successive year since 2008
  - 3. Government's (sovereign) share of the total external debt constitutes around 20 per cent

Which of the statements given above is/are correct?

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

Solution: d.

An inter-country comparison based on 'International Debt Statistics 2017' of the World Bank, which presents the debt data for 2015, shows that India continues to be among the less vulnerable countries with its external debt indicators comparing well with other indebted developing countries.

India's Key External Debt Indicators (per cent)							
Year	2012- 13	2013-14	2014-15	2015-16 R	2016-17 P		
External Debt (US\$ billion)	409.4	446.2	474.7	485.0	471.9		
Growth in External Debt (%)	13.5	9.0	6.4	2.2	-(2.7)		
Total External Debt to GDP	22.4	23.9	23.9	23.5	20.2		

- Regarding Statement 1: The composition of external debt reflects a well-maintained longer maturity profile (long-term external debt accounted for 81.4 per cent of total external debt at end-March 2017).
- External Commercial Borrowings have been a crucial determinant of the magnitude of India's external debt and its single largest component.
- **Regarding Statement 2**: See first row of data in the table. Statement 2 is clearly incorrect.
- The decline in external debt at end-March 2017 over end-March 2016 was due to the decrease in longterm debt particularly NRI deposits and commercial borrowings.
- Regarding Statement 3: Government (sovereign)
   external debt increased constituted 20.3 per cent of
   the total external debt at end-March 2017.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170828

http://www.thehindu.com/business/external-debt-at-4719-bn-in-fy17-falls-27-from-lastyear/article19694124.ece

- **2.** The indigenously developed 'Trawl System' by the DRDO can be employed for
  - 1. Creating vehicle-safe lanes through minefields
  - 2. Trawling in a non-destructive form of bottom by fishermen in the Palk Bay
  - 3. Placing naval mines in water to damage and prevent the entry of unauthorised vessels into Indian waters

Select the correct answer using the code given below:

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

Solution: a.

The indigenous developed Trawl System is employed for breaching of land mines and creating a vehicle safe lane, through a minefield for the advancing columns of mechanized forces in combat zone. It caters to the need of all types of mines usually encountered by the battle tank in such a scenario. The Trawl System developed by DRDO is capable of breaching a variety of land mines including passive and active influence mines.



http://pib.nic.in/newsite/PrintRelease.aspx?relid=170812

- **3.** Consider the following statements:
  - Under no circumstance can a central law on a subject enumerated in the Concurrent List be superseded by a state law
  - 2. 'Welfare of Labour', 'Trade Unions' and 'Labour disputes' are concurrent subjects in the Seventh Schedule of India's Constitution

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.

- Central trade unions continued to oppose the government's plans to ease retrenchment norms and to restrict trade union membership under the Industrial Disputes Act.
- Certain contentious proposals in the Code on Industrial Relations Bill include allowing bigger companies to retrench workers without the government's permission, increasing the severance pay by three times, restricting outsiders' role in trade union leadership, changing the definition of 'workers' and procedure for recognition of trade unions.
- With the Centre's plans to amend the Industrial
  Disputes Act 1947 taking time, States are going ahead
  with their own labour law changes to ease
  retrenchment norms in a bid to attract business
  locally with Assam joining the race recently.
- The Assam Assembly passed amendments to the Industrial Disputes Act to allow companies with a staff of up to 300 to retrench workers without government permission, up from the present requirement of up to 100 workers – giving industries with large workforce more flexibility in retrenchment. Since labour is a concurrent subject, however, the Assam government's approved Bill will need the Centre's nod to become a law.

Entry #22, #24; List 3, Seventh Schedule:

http://lawmin.nic.in/olwing/coi/coienglish/Const.Pock%202Pg.Rom8Fsss(35).pdf

http://www.thehindu.com/business/unions-toughenstand-on-reforms/article19693992.ece

- **4.** 'Operation Insaniyat', recently in the news, involves/involved
  - (a) Creating shelters for refugees in Indian states that border Myanmar
  - (b) Extending assistance under the Rakhine State Development Programme in conjunction with the Government of Myanmar

Solution: d.

<u>Operation Insaniyat</u>: 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

- (c) Providing Maldives with fresh water supply
- (d) None of the above

rice, pulses, sugar, salt, cooking oil, tea, ready to eat noodles, biscuits, mosquito nets etc.

http://mea.gov.in/press-

releases.htm?dtl/28944/Operation Insaniyat Humanitar ian assistance to Bangladesh on account of influx of refugees

http://www.thehindu.com/news/national/will-push-myanmar-on-refugees-india-tells-dhaka/article19693743.ece

- **5.** 'Recurving' tropical cyclones in Western Pacific
  - 1. Can result in drying up of monsoon rains across India
  - Is a phenomenon that happens frequently in El Niño years
  - 3. Move toward the east with a poleward component

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.

All statements are correct.

- Re-curving Western Pacific tropical cyclones may have played a role in reducing the August rainfall across India (Statement 1).
- During the monsoon months, cyclones in the Western Pacific move westwards towards India and aid rainbearing systems over the sub-continent. But in some years they 'recurve', or start to swing north-east (statement 3), and do not give as much of a push to the rains as they do in the good monsoon years.
- This re-curving frequently happens during the El Nino years (statement 2) but this time it inexplicably occurred when an El Nino hasn't yet taken shape.

http://www.thehindu.com/news/national/recurving-cyclones-dried-august-rains/article19694070.ece

## **SEPTEMBER 18, 2017**

- 1. 'Rajesh Sharma &. Ors. Vs State of UP' is a case in which the Supreme Court
  - (a) Recognised that the failure of the executive to place an ordinance before the legislature constitutes abuse of power and fraud on the Constitution
  - (b) Mandated a 9-point checklist before any arrests could be made under the dowry harassment law
  - (c) Ordered that a 'Family Welfare Committee' shall be constituted in each district by the District Legal Services authority, which shall look into complaints under Section 498A of the Indian Penal Code (IPC)
  - (d) Recognised the inherent injustice in Section 377 of the IPC, that its operation was patently opposed to the Constitution's essential promise of right to equality

Solution: c.

- The apex court had in July 2014 directed that the police must satisfy itself of the necessity of an arrest and the magistrate to record its satisfaction before authorising detention. The SC, in the case titled Arnesh Kumar vs. State of Bihar, had expressed serious concern over its abuse and hence laid down the conditions under which the accused could be arrested with checklist they extended to other cases with punishment less than seven years.
- Option 'c' refers to the recent case Rajesh Sharma &. Ors. Vs State of UP – in which the court mandated that a 'Family Welfare Committee' shall be constituted in each district by the District Legal Services authority, which shall look into complaints under Section 498A of the Indian Penal Code (IPC).

http://indianexpress.com/article/opinion/columns/rajesh-sharma-v-state-of-up-case-taking-a-narrow-view-sc-ruling-on-misuse-of-the-dowry-law-raises-questions-4848312/

From earlier: <a href="http://www.thehindu.com/todays-paper/tp-opinion/punishing-the-victims/article19430994.ece">http://www.thehindu.com/todays-paper/tp-opinion/punishing-the-victims/article19430994.ece</a>

- **2.** The 'Gaza Strip' opens out to the
  - (a) Mediterranean Sea
  - (b) Dead Sea
  - (c) Red Sea
  - (d) It is a landlocked region

Solution: a.

According to Britannica Encyclopedia, it is a territory occupying 363 square km along the Mediterranean Sea just northeast of the Sinai Peninsula. The Gaza Strip is unusual in being a densely settled area not recognized as a de jure part of any extant country.

- Palestinian Islamist Hamas group said on September 17 it has dissolved its administration that runs Gaza and agrees to hold general elections in order to end a long-running feud with President Mahmoud Abbas's Fatah movement.
- The last Palestinian legislative election was held in 2006 when Hamas scored a surprise victory, which laid the ground for a political rupture. Hamas and Fatah fought a short civil war in Gaza in 2007 and since then Hamas has governed the small coastal enclave.

https://www.britannica.com/place/Gaza-Strip



In the news:

http://www.thehindu.com/news/international/hamas-dissolves-gaza-administration-in-palestinian-unity-bid/article19703176.ece

- **3.** Consider the following statements about gravity dams:
  - 1. A cross-section/slice through it will usually look roughly triangular, with an increasing width of the section towards the base
  - 2. The recently inaugurated Sardar Sarovar Dam is a gravity dam

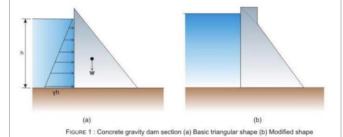
Which of the statements given above is/are correct?

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

- **4.** The 'two guides' policy involving 'shaping of the new world order' and safeguarding 'international security' was recently announced by which one of the following countries?
  - (a) China
  - (b) USA
  - (c) Russia
  - (d) Japan

Solution: c.

- A gravity dam is made from concrete or masonry, or sometimes both. It is called a gravity dam because gravity holds it down to the ground stopping the water in the reservoir pushing it over.
- The basic shape of a concrete gravity dam is triangular in section (Figure 1a), with the top crest often widened to provide a roadway (Figure 1b). The increasing width of the section towards the base is logical since the water pressure also increases linearly with depth as shown in Figure 1a.



http://britishdams.org/about\_dams/gravity.htm

No need to refer to this document; we are only providing the source:

http://nptel.ac.in/courses/105105110/pdf/m4l06.pdf

Source and Improvisation:

http://www.thehindu.com/news/national/no-other-project-in-the-world-has-faced-so-many-hurdles-modi/article19703191.ece

Solution: a.

China's rise is reflected in a more assertive China. According to President Xi Jinping's 'two guides' policy announced in February, China should guide 'the shaping of the new world order' and safeguarding 'international security'. Much has changed during the last quarter century when Deng Xiaoping advised China 'to observe calmly, secure its position, hide its capability, bide its time and not claim leadership'.

Today's China is not just willing but eager to assume leadership and expects other countries to yield space. China has suggested 'a new type of great power relations' to the U.S. Its assertiveness in the East China Sea with Japan and in the South China Sea with its Association of Southeast Asian Nations (ASEAN) neighbours sends a signal that while multipolarity may be desirable in a global order, in Asia, China is the predominant power and must be treated as such.

http://www.thehindu.com/todays-paper/tpopinion/reading-the-tea-leaves/article19705842.ece

- **5.** Which of the following income sources is/are components of non-tax revenues of the central government?
  - 1. Telecom spectrum auctions
  - 2. Interest receipts on loans granted
  - 3. Reserve Bank of India's annual dividend payout

Select the correct answer using codes given below:

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

Solution: d.

Non-tax revenue (receipts) of the central government mainly consists of interest receipts on account of loans by the central government, dividends (this will include RBI's annual dividend payout) and profits on investments made by the government, fees (this will include spectrum charges) and other receipts for services rendered by the government. Cash grants-in-aid from foreign countries and international organisations are also included.

Page 61-61, 12th Macroeconomics, NCERT

Source and Improvisation:

http://vikaspedia.in/education/current-affairs/August 2017 National Ca.pdf

## **SEPTEMBER 19, 2017**

- Consider the following statements about the 'Bakshali manuscript', recently in the news:
  - 1. Made of leaves of birch bark, the manuscript records the earliest instance of the use of a symbol to denote zero as a placeholder
  - It has been identified as the earliest available copy of Brahmagupta's work "Brahmasputasiddhanta"

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.

Last week, the University of Oxford's Bodleian Libraries announced that the oldest Indian reference to the digit zero has been identified, in a manuscript dating back to the third or fourth century. The 'Bakshali manuscript' consists of 70 leaves of birch bark and contains hundreds of zeros in the form of dots. The manuscript cannot claim to contain the earliest use of zero — other ancient civilisations too used symbols to denote zero as a placeholder, including the Babylonians 5,000 years ago, millennia before the Bakhshali Manuscript. But the manuscript does lay claim to being the oldest surviving document that expresses zero, the placeholder, in a form that would later evolve into the modern symbol for zero, the number.

- Additional Information: ZerOrigIndia Foundation, or the Zero Project, based in Netherlands, is a crowdsourced project with the aim of determining the origin of the zero digit as the numeral we know today. They are of the view that in ancient India are found numerous so-called 'cultural antecedents' that make it plausible that the mathematical zero digit was invented here. It hypothesizes that mathematical zero ('shunya', in Sanskrit) may have arisen from the contemporaneous philosophy of emptiness or Shunyata. If philosophical and cultural factors found in India were important to the development of zero as a mathematical concept, it would explain why other civilizations did not develop zero as a mathematical concept.
- The first text to discuss zero in the numerical sense is the Indian astronomer Brahmagupta's work "Brahmasphutasiddhanta," which was written in A.D. 628.

http://www.thehindu.com/sci-tech/science/1800-yearold-black-dot-is-first-zeroresearchers/article19698886.ece

http://indianexpress.com/article/explained/in-page-from-indian-history-zeros-oldest-living-ancestor-reveals-its-age-4850053/

https://www.livescience.com/60425-oldest-zero-indian-manuscipt.html

https://www.livescience.com/27853-who-invented-zero.html

- **2.** The Korean peninsula does *not* project out into which one of the following water bodies?
  - (a) East Sea
  - (b) East China Sea
  - (c) Sea of Okhotsk
  - (d) Yellow Sea

Solution: c

Sea of Japan is also known as East Sea.



- 3. In which of the following circumstances does the Constitution permit the Presiding Officer of a House to disqualify a legislator?
  - 1. A legislator withdrawing support to his/her own party's government
  - A legislator voting or abstaining from voting in the House contrary to any direction given by his/her political party

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.

Whether the interpretation that legislators withdrawing support to their own party's government amounts to them voluntarily giving up their membership (and thus being subject to provisions of the tenth schedule) is acceptable, will have to be decided by the courts if the decision of the Speaker of the TN Assembly is challenged.

A member incurs disqualification under the defection law (tenth schedule):

- 1. if he voluntary gives up the membership of the political party on whose ticket he is elected to
- 2. if he votes or abstains from voting in the House contrary to any direction given by his political
- 3. if any independently elected member joins any political party; and
- 4. if any nominated member joins any political party after the expiry of six months.

Chapter 'Parliament'; Indian Polity by M Laxmikanth;

#### Source/Improvisation:

http://www.thehindu.com/opinion/editorial/a-partisanruling/article19710531.ece

#### 4. Consider the following statements:

- The Parliament imposing a 'surcharge' on the Goods and Services Tax can be regarded as an unconstitutional step
- 2. As per Article 270 of the Constitution, cesses imposed by the Parliament for earmarked must be shared with purposes state governments

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: a.

The guintessential feature of a cess is that it is a tax levied for a specific purpose. As per Article 270 of the Constitution, cesses imposed by the Parliament for earmarked purposes need not be shared with state governments. The proceeds are retained exclusively with the Union government, which should ideally be used for their stated purpose, as is evident from the Fourth Finance Commission Report. Additionally, the contributor to the cess and beneficiaries of the earmarked purpose must be relatable.

If compensating State governments is considered to be a specific purpose, any general revenue raising measure can be considered to be backed by an earmarked purpose. Once the money is transferred to State governments, it can be used to fund just about any scheme and may even be used merely to adjust the respective State government's fiscal deficit. Further, there is no relation between the persons contributing to the cess and the recipients, the State governments. All these factors make the cess look more like an additional tax or surcharge which becomes problematic as surcharge on the GST is prohibited under Article 271 (by the 101st Constitution Amendment Act, 2016).

http://www.thehindu.com/opinion/op-ed/questionsabout-the-gst-cess/article19710552.ece

#### 5. Consider the following pairs:

#### Sustainable **Targets Development** Goals

1. SDG 2 Combat communicable diseases

2. SDG 3 End all forms of

malnutrition

3. SDG 4 : Ensure that all girls and boys complete free, equitable and quality primary and secondary education

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

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

Solution: c.

Targets mentioned in options 1 and 2 must be interchanged.

- SDG 2 ('Zero Hunger'): End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- SDG 3 ('Good health and well-being'): Ensure healthy lives and promote well-being for all at all ages
- SDG 4 ('Quality Education'): Ensure inclusive and quality education for all and promote lifelong learning

### Improvisation:

http://www.thehindu.com/todays-paper/tpopinion/reimagining-the-obc-quota/article19712086.ece

http://www.thehindu.com/todays-paper/tp-opinion/theencephalitis-challenge/article19712084.ece

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170894

http://www.un.org/sustainabledevelopment/sustainabledevelopment-goals/

## **SEPTEMBER 20, 2017**

- **1.** Myanmar's national flag
  - (a) Is solid red with a gold star at the centre
  - (b) Has three horizontal stripes of yellow, green and red with a five-pointed white star in the middle
  - (c) Has three vertical bands of black, red and green with the National Emblem in white centred on the red band
  - (d) is divided diagonally from the lower hoist-side corner, with the upper triangle yellow and the lower triangle orange with a black and white dragon centred along the dividing line

Solution: b.



A GK question. Statement 'a', 'c' and 'd' respectively refer to Vietnam's, Afghanistan's and Bhutan's national flags.

http://www.thehindu.com/todays-paper/suu-kyipromises-to-resettle-verified-rohingyarefugees/article19717776.ece

- **2.** Consider the following statements:
  - India has not ratified The Hague Convention on the Civil Aspects of International Child Abduction, as the worst affected in cases under the convention will be women who often flee abusive marriages
  - The Central Government has argued in court that criminalising marital rape may destabilise the institution of marriage and be an easy tool for harassing husbands

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.

A mains-oriented question.

## **Regarding Statement 1:**

- From 2016:
  - (http://indianexpress.com/article/india/india-news-india/india-will-not-ink-hague-treaty-on-civil-aspects-of-child-abduction-4397236/): "We found that there are more cases of Indian women who return to the safety of their homes in India after escaping a bad marriage. Cases of women who are foreign citizens, married to Indian men, going away with their children are far fewer. Hence signing the Hague Convention would be to the disadvantage of Indian women. Also, a majority of such cases pertain to women instead of men running away," said a WCD official.
- The Ministry of Women and Child Development, wary of Indian women being charged or prosecuted in foreign countries, declined to back the draft bill prepared by the Law Commission.

#### **Regarding Statement 2:**

(http://indianexpress.com/article/explained/marital-rape-a-crime-in-many-countries-an-exception-in-many-more-4821403/): The central government recently filed an affidavit in response to pleas seeking criminalising marital rape, arguing that marital rape should not be criminalised, on the ground that it may "destabilise the institution of marriage" and that it would be "and an easy tool for harassing the husbands". The Centre also cited the Supreme Court and various High Courts' observations of the growing misuse of section 498A (harassment caused to a

married woman by her husband and in-laws) of the IPC.

#### Source and Improvisation:

http://www.thehindu.com/news/national/centrerethinks-joining-hague-child-custodypact/article19716400.ece

- **3.** Consider the following statements:
  - 1. M.S. Subbulakshmi acted in several films
  - Abhijnana Shakuntalam, a play in Sanskrit, was authored by Saint Thyagaraja

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: a.

<u>About Thyagaraja</u>: Thyagraja's bhajans, though most popular in Tamil Nadu, are actually in Telugu and some Sanskrit. He is one of the principal composers of the Carnatic trinity.

 Keeping with the Carnatic tradition, an artiste and a listener experience the finer side of music only when they align themselves with the quality of Bhakti. And it is this quality of devotion that many were drawn to Thyagaraja and his music. Subbulakshmi was deeply immersed in the devotional music of Saint Thyagaraja.

#### About Subbulakshmi's acting career:

- Subbulakshmi also (apart from her fame for her work in music) acted in several memorable films in 1930s and 40s. Her first movie 'Seva Sadhanam' (1938) was on social reform.
- She was married to Thaigaraja Sadasivam (1902-1997), a freedom fighter and journalist. Their association was destined to last for 57 years, and become most fruitful in terms of service to music, arts and literature. In 1940 they together produced a movie Sakuntalai based on Kalidasa's play (from early first millennium Common Era) Abhijyanam Shakuntalam.
- She also played the leading role in 'Meera', based on the life of Mirabai, the 16th century devotee of Lord Krishna from Rajasthan. The Hindi version of Meera was released in New Delhi on December 5, 1947. Sarojini Naidu, after watching the film, said she was happily surrendering to Subbulakshmi the title 'Nightingale of India', which she as a poetess had held for decades.

From last year:

http://pib.nic.in/newsite/printrelease.aspx?relid=149779

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170906

- **4.** Which of the following statements about India's Strategic Partnership model/policy is/are correct?
  - 1. It will apply only to building combat jets
  - 2. As per the model, foreign Original Equipment
    Manufacturers must transfer sensitive and

Solution: d.

 The strategic partnership model is expected to help build a domestic defence manufacturing base. It will give a boost to the 'Make in India' policy in the defence sector and set Indian industry on the path to proprietary technology if they want to engage with local partners in manufacturing

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

- acquiring cutting-edge capabilities which will contribute to building of self-reliance in the vital sector.
- The new model has four segments —submarines, single-engine fighter aircraft, helicopters and armoured carriers/main battle tanks. Additional segments may be added in the future.
- The model was proposed by the Dhirendra Singh Committee in July, 2015.
- Under it, foreign original equipment manufacturers (OEMs) can hold up to a 49% stake in a joint venture with an Indian private firm which will hold the majority of shares.

#### Some issues with the SP Model:

- "To allow foreign OEMs to provide the most advanced technologies, the partnership arrangement between an Indian owned 'strategic partner' company and a foreign OEM needs to provide an opportunity for the foreign OEM to retain control over its proprietary technology," the USIBC said, noting this wasn't explicit in the policy document.
- The USIBC also opposed a clause in the new rules that held foreign firms jointly responsible for the quality of the platforms provided to the military, saying legal liability is a significant factor in business decisions. This is because there are concerns about Indian private firms' lack of experience in the aerospace sector. Only state-run Hindustan Aeronautics Ltd. had made planes under license, while some private players were starting from scratch, having never built even an aircraft component.

http://www.thehindu.com/business/Industry/us-defence-firms-want-grip-on-technology-in-make-in-india-plan/article19715826.ece

## **5.** India's National Steel Policy 2017 envisages

- Our total crude steel production capacity surpassing China's by 2025
- 2. Reducing substantially the steel sector's dependency on coking coal as a raw material over the next ten years

Select the correct answer using the code given below:

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

### Solution: b.

The same question was posted here earlier.

Coking coal is an essential raw material for steel production. The policy envisages

- increasing per capita steel consumption to 160 kg by 2030, from the present levels of 61 kg
- Reduction on the dependence of imported coking coal
- A crude steel production capacity of 300 million tonnes per year (far lesser than what China's capacity today is) by 2030. This would translate into additional investment of Rs. 10 lakh Crore by 2030-31.
- adoption of energy efficient technologies in the MSME steel sector to improve the overall productivity & reduce energy intensity

- R&D in the sector through the establishment of Steel
   Research and Technology Mission of India
- Housing, automobiles and infrastructure to be the major segments that will consume steel.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=161491

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170911

## **SEPTEMBER 21, 2017**

- The Nodal Ministry in India responsible for working towards achieving UN Sustainable Development Goal Eight (SDG 8) is the
  - (a) Ministry of Environment, Forests and Climate Change
  - (b) Ministry of Agriculture and Farmers Welfare
  - (c) Ministry of Social Justice and Empowerment
  - (d) Ministry of Labour and Employment

Solution: d.

SDG 8 seeks to "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all".

On the same day that the International Labour Organisation (ILO) released new global estimates of modern slavery, a group of over 40 activists and academics from different parts of the world have released a 25-point signed statement urging India to ensure a more effective implementation of labour law protections to eliminate modern slavery and forced labour in line with the SDGs. According to the statement, the current targets and indicators proposed by the Labour Ministry are wholly inadequate.

http://niti.gov.in/writereaddata/files/Mapping-SDGs%20V19-Ministries%20Feedback%20060416 0.pdf

#### Improvisation:

http://www.thehindu.com/news/national/scholars-activists-urge-india-to-act-against-forced-labour/article19722160.ece

- **2.** Consider the following statements:
  - The 'Special Strategic and Global Partnership' is often mentioned in the news in the context of India's relations with USA
  - 2. India has a strategic partnership with China

Which of the statements mentioned above is/are correct?

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

Solution: b.

"The India-Japan 'Special Strategic and Global Partnership'
— a designation and status New Delhi accords to no other
partner — has reached new heights under the stewardship
of the two leaders."

"Occasionally, as between India and China, a 'strategic partnership' is a way of opening a channel of communication and minimal cooperation intended to stabilise and develop the potential for a détente and conceivably something warmer."

 On paper, India and China have had a strategic partnership—specifically, a strategic and cooperative partnership for peace and prosperity—since 2005.

http://www.thehindu.com/opinion/op-ed/a-time-of-strategic-partnerships/article19722970.ece

- **3.** With reference to the "two-plus-two" dialogue mechanism between India and Japan, consider the following statements:
  - It comprises the respective foreign affairs and commerce ministries

#### Solution: d.

 The two-plus-two dialogue comprising India's defence and foreign secretaries and their Japanese counterparts takes place annually before the interaction of the two prime ministers. 2. It is a form of Track 3 diplomacy

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

- The two-plus-two dialogue mechanism is between countries which have institutionalised annual dialogue or at least a regular dialogue between the political heads of the two states. For instance, the US has institutionalised a regular bilateral dialogue with Japan and Australia. Both Japan and Australia also have similar summit level interaction between them on a regular basis.
- The two-plus-two dialogue comprising ministries of defence and foreign affairs discusses issues of bilateral cooperation threadbare and identifies new areas of cooperation, which are generally finalised later at the summit level interactions between the political leadership of the two states.
- It is a form of Track 1 diplomacy. These are official discussions typically involving high-level political and military leaders and focusing on cease-fires, peace talks, and treaties and other agreements.
- Additional Information: India and USA recently decided to establish a new dialogue between the defence and foreign ministers of the two countries. It is likely to be called "2 by 2", which is similar to the India-Japan 2+2 dialogue.

About different tracks of diplomacy:

https://www.usip.org/glossary/tracks-diplomacy

Source and Improvisation:

http://www.thehindu.com/opinion/op-ed/a-time-ofstrategic-partnerships/article19722970.ece

 $\underline{\text{http://www.idsa.in/askanexpert/Indiarestrictedthetwoplu}}\\ \underline{\text{s-twodialogue}}$ 

- **4.** Consider the following statements:
  - 1. There is neither any representation from states nor from civil society organisations in the Genetic Engineering Appraisal Committee
  - According to a recent Parliamentary Standing Committee report on GM crops, there is increasing evidence about the lack of safety of GM crops

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 Committee noted that 17 of the 20 most developed countries, including Europe, Japan, Russia, Israel, etc., do not grow GM crops. This is due to the increasing evidence about the lack of safety of GM crops and little or no benefits to justify the risks. In India, Bt cotton is the only GM crop that is cultivated. In its assessment on the success of Bt cotton, the Committee noted that government data talks about production and not the average yield in an area. A better assessment would be to see the increase in yield of cotton since the introduction of Bt cotton in 2005.

The Committee noted deficiencies in the functioning of Genetic Engineering Appraisal Committee (GEAC), which grants approval for release of genetically engineered organisms and products in the environment. It stated that most members of GEAC were from government and government aided institutions, and there was no representation from states or from civil society

organisations. It also observed ad hocism in the constitution of the Committee and the criteria adopted by the Ministry of Environment for selection of the members and their qualifications.

It said that there is evidence on adverse impacts of GM mustard (with reference to DMH-11) since it is an herbicide tolerant GM crop. It also noted that many state governments were opposed to its entry, even in the form of field trials. The Committee recommended that no GM crop should be introduced in the country unless its effect on the environment and human health is scientifically assessed.

 $\frac{http://www.prsindia.org/uploads/media/Report\%20Sum}{mary/Report\%20Summary\%20-}$ 

%20Genetically%20Modified%20crops%20and%20its%20i mpact%20on%20environment.pdf

## Improvisation:

http://www.thehindu.com/sci-tech/agriculture/nod-forgm-mustard-unlikely-soon/article19722585.ece

- **5.** Consider the following statements with reference to Geographical Indication tags ("GI Tags"):
  - 1. No handmade and manufactured products in the informal sector can be granted a GI tag
  - 2. In the context of quality control of registered GIs, there is no single reference to an inspection or monitoring structure in India's GI Act.
  - 3. "Attar" making art evolved, developed in and is confined to, Jaipur

Which of the statements given above is/are correct?

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

Solution: b.

GIs are an area of strength and optimism for India as the "GI tag" has accorded protection to several handmade and manufactured products, especially in the informal sector.

A GI is supposed to convey to a consumer the assurance of a certain quality, reputation or other characteristics of the goods on which it is applied, which are essentially attributable to its geographical origin. Does the GI Act ensure that all the GIs registered thereunder meet such expectations?

- "Quality control" is the sine qua non of any GI protection. In fact, a European Community Regulation for the protection of GIs is titled as a regulation "on quality schemes for agricultural products and foodstuffs". This regulation states that the added value of GIs is based on consumer trust and that it is only credible if accompanied by effective verification and controls. Further, the quality schemes should be subject to a monitoring system of official controls to ensure verification of compliance with the law and rules relating thereto, and should include a system of checks at all stages of production, processing and distribution.
- Unlike the European Regulation, the GI Act does not provide for monitoring mechanisms at multiple levels.
   In fact, there is no single reference to an inspection or monitoring structure in the Act.
- Currently, there is a proliferation of GI registrations in India without any legal provisions stipulating postregistration quality control measures that are to be employed in the production of goods branded as GIs.

This is detrimental not only to the protection process of GIs in India but also to the very existence of these GIs, because prolonged failure to meet consumer expectations would dilute the premium and credibility of GI-branded goods

#### Kannauj Attar:

https://twitter.com/CIPAM India/status/9105664592055 00928

Blue pottery of Jaipur:

https://twitter.com/CIPAM\_India/status/9101903373850 41920

List of GIs:

http://www.ipindia.nic.in/writereaddata/Portal/Images/pdf/Registered-GIs-of-India.pdf

Source and improvisation:

http://www.thehindu.com/opinion/op-ed/beyond-social-media/article19723042.ece

## **SEPTEMBER 22, 2017**

- Which one of the following regional organisations is regarded as a bridge between South and South East Asia?
  - (a) Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)
  - (b) South Asian Association for Regional Cooperation (SAARC)
  - (c) Mekong-Ganga Cooperation (MGC)
  - (d) Association for South East Asian Association (ASEAN)

Solution: a.

South Asia as a geographical region comprises Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.Myanmar too is included sometimes.

- The sub-regional organization BIMSTEC came into being in 1997 through the Bangkok Declaration. It constitutes seven Member States: five deriving from South Asia, including Bangladesh, Bhutan, India, Nepal, Sri Lanka, and two from Southeast Asia, including Myanmar and Thailand. The regional group constitutes a bridge between South and South East Asia and represents a reinforcement of relations among these countries. BIMSTEC has also established a platform for intra-regional cooperation between SAARC and ASEAN members. BIMSTEC is a sector-driven cooperative organization (at the moment, it focuses on 9 sectors).
- MGC is an initiative by six countries India and five ASEAN countries (CLMVT) for cooperation in tourism, culture, education, as well as transport and communications.

http://bimstec.org/overview/

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170930;

- **2.** The revamped Khelo India Programme will
  - Promote gender equity
  - 2. Promote social inclusiveness
  - 3. Help maintain unity and integrity of the nation

Solution: d.

Impacts of the revamped Khelo India Programme include:

**Regarding Statement 1**: The power of sport in promoting gender equity and social inclusiveness is

Select the correct answer using the code given below:

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

- also fully recognized and special measures are provided for to achieve these objectives.
- Regarding Statement 2: The programme also aims at engaging youth living in disturbed and deprived areas, in sporting activities, to wean them away from unproductive and disruptive activities and mainstream them in the nation-building process.

Salient features of the revamped Khelo India Programme include:

- It will cover 1,000 most talented young athletes each year across select sports disciplines.
- Each athlete selected under the scheme shall receive an annual scholarship worth Rs. 5 lakh for 8 consecutive years. This is the first time ever that a long-term athlete development pathway would be made available to gifted and talented youngsters to excel in competitive sports.
- The Programme aims to promote 20 universities across the country as hubs of sporting excellence, which would enable talented sports persons to pursue the dual pathway of education and competitive sports.
- The Programme would cover about 200 million children in the age group of 10-18 under a massive national physical fitness drive, which will not only measure the physical fitness of all children in the age group, but also support their fitness related activities.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170948

- **3.** India was/will be the 'first' to
  - 1. Conduct the BIMSTEC Disaster Management Exercise (BIMSTEC DMEx)
  - 2. Host the South Asian Annual Disaster Management Exercise (SAADMEx)
  - 3. Organise the Asia Ministerial Conference on Disaster Risk Reduction (AMCDRR)

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: a.

#### Why statement 3 is incorrect?

The 1st Asian Ministerial Conference for Disaster Risk Reduction AFTER the introduction of the Sendai Framework for Disaster Risk Reduction (2015-2030) was hosted by the Government of India. Beijing hosted the first AMCDRR conference in 2005, followed by India in 2007. We have posted here a few questions on AMCDRR in the past.

The First 'BIMSTEC Disaster Management Exercise- 2017' (BIMSTEC DMEx-2017) will be conducted by the National Disaster Response Force as the lead agency in October, 2017 in the National Capital Region.

## Why was this question relevant?

India has been at the forefront of DRR efforts by hosting the South Asian Annual Disaster Management Exercise (SAADMEx-2015) and the Asian Ministerial Conference for Disaster Risk Reduction (AMCDRR). India has also offered its expertise and capabilities in DRR such as the South Asia satellite, GSAT-9, and the Tsunami Early Warning Centre to other countries. Disaster Management was one of the important Agenda items the BIMSTEC leaders deliberated

upon during the Goa BRICS Summit in October 2016 where BIMSTEC leaders were the Special Invitees.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170930

#### AMCDRR:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=128812

#### SAADMEx:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=131769

**4.** Consider the following statements:

 In association with Mahatma Gandhi, Lakshman Rao Inamdar established "Sahakar Bharati"

2. To form a cooperative society is a fundamental right

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.

Sahakar Bharati has been established (1978) "for spreading, purifying and strengthening the Co-operative movement. Any individual as well as Co-operative society can become its member, who have faith in its concepts. It works as a Non-Political and Non-Government organization."

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170967

Image: 97th CAA;

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170986

- 5. The 'Phyto-Pharma Plant Mission', 'B4', and 'Frugal Microscopy through the Foldscope' are programmes/initiatives recently launched by the Department of Biotechnology in which one of the following regions?
  - (a) Western Himalayan states
  - (b) North East Region
  - (c) Western Ghats
  - (d) The states of Jharkhand, Orissa and Chattisgarh

Solution: b.

- The **Phyto-Pharma Plant Mission** is aimed at
  - a) conservation and cultivation of endangered and threatened endemic medicinal plants, and
  - b) discovery of new botanical drugs for unmet medical needs using the rich traditional ethnobotanical knowledge and biodiversity of these states.
- Brahmaputra Biodiversity and Biology Boat (B4): On the Brahmaputra River, a major ecology hotspot, in NER, in collaboration with DoNER. B4 will establish a large barge on the river with a well-equipped laboratory for analysis of all components of the entire ecosystem of the river and surroundings. B4 will be linkEd with all the local research institutions along the river, as well as national and international laboratories.
- Frugal Microscopy through the Foldscope: a frugal microscope assembled from simple components, including a sheet of paper and a lens, is acting as a tool connecting students and science from the region, with the rest of the country.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170969

## **SEPTEMBER 23, 2017**

- 1. Aerosols can
  - 1. Scatter sunlight directly back into space
  - 2. Modify the size of cloud particles, thereby changing how clouds reflect and absorb sunlight

Solution: d.

 Aerosols interact both directly and indirectly with the Earth's radiation budget and climate. As a direct effect, the aerosols scatter sunlight directly back into space. As an indirect effect, aerosols in the lower 3. Be found in the Stratosphere

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

- **2.** Around 20% of crop residue in India is burnt annually. Which of the following is/are some of the
  - 1. Shortage of agricultural labour
  - 2. Short interval between crops
  - 3. Mechanisation of farming

Select the correct answer using the code given below:

reasons for this, despite the practice being banned?

- (a) 1 and 2 only
- (b) 2 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- **3.** Which one of the following is *not* a greenhouse gas generated from rice paddy fields?
  - (a) Nitrous Oxide
  - (b) Hydrofluorocarbons
  - (c) Methane
  - (d) Carbon Dioxide

- atmosphere can modify the size of cloud particles, changing how the clouds reflect and absorb sunlight, thereby affecting the Earth's energy budget.
- Aerosols also can act as sites for chemical reactions to take place (heterogeneous chemistry). The most significant of these reactions are those that lead to the destruction of stratospheric ozone.
- Three types of aerosols significantly affect the Earth's climate – Volcanic aerosol layer which forms in the stratosphere after major volcanic eruptions, desert dust and human-made aerosols.

For a basic, yet comprehensive, understanding of Atmospheric Aerosols, refer to:

https://www.nasa.gov/centers/langley/news/factsheets/ Aerosols.html

Improvisation (passing reference):

http://www.thehindu.com/opinion/op-ed/from-ocean-to-ozone-the-limits-of-our-planet/article19737717.ece

Solution: d.

**Justification for statements 3**: Farm mechanisation has killed the practice of using wheat stalk and straw as fodder, and burning is the only way out. "The cuttings left by the machines are too sharp. Not only do they injure us, even animals find it difficult to graze on," says a farmer.

**Primary Source:** 

http://www.prsindia.org/uploads/media/MPR/MPR-%20August%202017.pdf#page17

Summary of report on "Comprehensive Agriculture Research based on Geographical Conditions and Impact of Climate Change to ensure Food Security in the Country":

http://www.prsindia.org/uploads/media/Report%20Summary/SCR%20Summary-%20Agriculture%20Research.pdf

For detailed reading:

http://www.downtoearth.org.in/coverage/river-of-fire-57924

Solution: b.

There may be slight confusion regarding whether or not HFCs are emitted from paddy fields after you read this: "The Standing Committee on Agriculture in its report noted that paddy fields are a major source of greenhouse gases in the farm sector. These gases include methane, nitrous oxide, hydrofluorocarbons and carbon dioxide. The Committee noted that the reduction of emissions of these greenhouse gases would help India meet obligations under the International Accord on Climate Change."

The second sentence under quotes probably only refers to some of the important greenhouse gases. But in context, it

is made to appear that HFCs too are emitted from paddy fields. We came across no research documents that list HFC as an emission from paddy fields. Importantly, HFCs have no natural sources, and are known to be emitted through industrial processes.

Summary of report on "Comprehensive Agriculture Research based on Geographical Conditions and Impact of Climate Change to ensure Food Security in the Country":

http://www.prsindia.org/uploads/media/Report%20Summary/SCR%20Summary-%20Agriculture%20Research.pdf

http://ec.europa.eu/environment/integration/research/newsalert/pdf/management\_rice\_paddy\_fields\_affects\_ghg\_emissions\_454na3\_en.pdf

## **4.** The Supreme Court in the

- 1. 'Balachandra & Ors. vs. Yedyurappa' case declared that any action taken by the Governor, based on the proceedings being carried on under the Tenth Schedule, would be a constitutional impropriety
- 2. 'Nabam Rebia and Bamang Felix vs Deputy Speaker & Ors.' case declared that legislators of a ruling party approaching the governor to set in motion a constitutional process to replace a Chief Minister could not attract provisions of the tenth schedule

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 descriptions must be interchanged.

# The Balchandra L. Jarkiholi & Others v. B.S. Yeddyurappa (2011) case:

- The Supreme Court (in 2011) quashed the disqualification of 11 MLAs by the Speaker ahead of a no confidence motion which had ensured survival of the Yeddyurappa government in Karnataka.
- had made a categorical statement in their replies to the show-cause notice issued by the speaker before their suspension that they had no intention at all to leave BJP or the membership of its legislature party and that their letter to the governor was aimed at "cleansing the image of the party by getting rid of Yeddyurappa as chief minister." According to the petition, democratic dissent, without any intention of leaving the party but in the hope of saving its image and reputation by getting rid of a "corrupt" chief minister, cannot be regarded as voluntarily giving up the party membership as such.

# The Nabam Rebia and Bamang Felix vs Deputy Speaker & Ors. Case (2016):

• Legally, the main significance of the Arunachal Pradesh verdict lies in the clarity it provides on the Governor's role. The Governor has no authority to resolve disputes within a political party; nor is he the conscience-keeper of the legislature. He has no discretionary power to advance an Assembly session without the aid and advice of the Council of Ministers; nor can he fix its agenda. On the state's Governor's defence that he was acting to prevent constitutional improprieties such as a Speaker, for whose removal a motion was pending, adjudicating on the disqualification of some MLAs, the Court has made three points about the Governor's intervention: he

had no role in the removal of the Speaker, he had no authority to interfere in the Speaker's powers under the anti-defection law, and he had no basis to act on the views of a group of 21 breakaway Congress MLAs, who clearly did not constitute a two-third fraction of the 47-member Congress Legislature Party to be lawfully recognisable.

#### Source and Improvisation:

http://www.thehindu.com/opinion/lead/questions-of-numbers/article19737714.ece

#### From 2016:

http://www.thehindu.com/opinion/editorial/Turning-back-the-clock/article14486822.ece

#### From 2011:

http://www.livemint.com/Politics/kpf9jHpluoxThDRvCEVSgM/SC-quashes-Karnataka-speaker8217s-decision-to-disqualify.html

- **5.** Consider the following statements:
  - The share of area sown using certified seeds out of the total area sown is called the seed replacement ratio
  - 2. The seed replacement ratio in India is around sixty-five per cent

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: a.

The Standing Committee on Agriculture in its report stated that availability of good quality of seeds ensures high productivity of agriculture. Share of area sown using certified or quality seeds out of the total area sown is called the seed replacement ratio. The Committee stated that this ratio is skewed as 65% of the seed requirement is met by farmers' own seeds or seeds distributed among themselves. It also noted that the private sector contributes to 50-57% of the seed production in India. The Committee stated that high yielding varieties of improved seeds need to be developed. Further, it recommended that the process of production, procurement and distribution of these improved seeds should be centralised.

#### **Primary Source:**

http://www.prsindia.org/uploads/media/MPR/MPR-%20August%202017.pdf#page17

Summary of report on "Comprehensive Agriculture Research based on Geographical Conditions and Impact of Climate Change to ensure Food Security in the Country":

http://www.prsindia.org/uploads/media/Report%20Summary/SCR%20Summary-%20Agriculture%20Research.pdf

## **SEPTEMBER 25, 2017**

- 1. The framework, 'Graded Surveillance Measure', was recently introduced by which one of the following Indian regulatory authorities?
  - (a) Food Safety and Standards Authority of India
  - (b) National Highways Authority of India
  - (c) Reserve Bank of India

#### Solution: d.

 SEBI introduced the measure to keep a tab on securities that witness an abnormal price rise that is not commensurate with financial health and fundamentals of the company such as earnings, book value, price to earnings ratio among others. (d) Securities and Exchange Board of India

 The underlying principle behind the graded surveillance framework is to alert and protect investors trading in a security, which is seeing abnormal price movements. SEBI may put shares of companies under the measure for suspected price rigging or under the ambit of 'shell companies'. The measure would provide a heads up to market participants that they need to be extra cautious and diligent while dealing in such securities put under surveillance.

http://www.thehindu.com/business/Industry/all-youneed-to-know-about-graded-surveillancemeasure/article19747350.ece

- 2. From the local communities' knowledge and practices, a high biodiversity has been conserved through an in-situ conservation preserving endemic species. This region is one of the primary centres of origin of rice, and has historically been among the among the world's leading areas for rice diversification. Yet, local communities here are some of the poorest of the country. Which region do these statements refer to?
  - (a) Kuttanad, Kerala
  - (b) Koraput, Odisha
  - (c) Upper Brahmaputra Valley, Assam
  - (d) Nalanda district, Bihar

Solution: b.

- Traditional systems in the Koraput Region are strongly linked to the local traditional communities.
   From their knowledge and practices, a high biodiversity has been conserved through an in-situ conservation preserving endemic species. In spite of their invaluable ecological services, the local communities are part of the poorest of the country and the world. The food production is not always enough to satisfy all of their needs during the whole year.
- This region is endowed with impressive biodiversity and is one of the primary centres of origin of rice. It is also regarded as one among the world's leading areas for rice diversification.
- Due to the current threats toward forest and agrobiodiversity such as mining and deforestation, the recognition of this GIAHS would aim to enable rural families to derive economic benefit from their past and present contributions to conservation of genetic resources.

### Improvisation:

http://www.thehindu.com/scitech/agriculture/guardians-of-thegrain/article19735976.ece

http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/asia-and-the-pacific/koraput-traditional-agriculture/detailed-information/en/

- **3.** Consider the following statements about 'Hyperspectral Imaging':
  - 1. It can be used to analyse soil health without requiring physical collection of soil samples
  - 2. Currently no Indian satellite has the capability to shoot hyper-spectral images

Which of the statements given above is/are correct?

(a) 1 only

Solution: c.

Hyperspectral imaging involves analysing extremely detailed images of an object — frequently to the scale of nanometres — and then reconstructing its constituent elements. Using custom-developed algorithms, satellite-images, or those taken from low flying planes or drones, can be used to calculate the proportion of nitrogen, potassium and phosphorous

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

- the three most vital nutrients as well as other minerals in the soil and be used to gauge its health.
- From August: The Indian Space Research
  Organisation (ISRO) says it plans to launch a fullfledged niche Earth observation (EO) satellite —
  called the Hyperspectral Imaging Satellite or HySIS —
  using a critical chip it has developed.
- Hyperspectral or hyspex imaging is said to be an EO trend that is being experimented globally. Adding a new dimension to plain-vanilla optical imagers, it can be used for a range of activities from monitoring the environment, crops, looking for oil and minerals all the way up to military surveillance all of which need images that show a high level of differentiation of the object or scene.

http://www.thehindu.com/news/national/tech-boost-for-soil-quality-scheme/article19748267.ece

#### From August:

http://www.thehindu.com/sci-tech/science/isro-to-develop-full-fledged-earth-observation-satellite/article19458651.ece

- **4.** The 'North East Connectivity Summit'
  - Was conceived and designed by the Ministry of Development of North Eastern Region
  - 2. Theme for the 2017 edition is 'Act East from Nagaland'
  - 3. Permits participation only of Indian public and private sector entities/institutions/representatives

Which of the statements given above is/are correct?

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

Solution: c.

The North East Connectivity Summit (NECS) was conceived and designed by FICCI in 2014. The summit was designed as a cross sectoral initiative with the objective of highlighting the connectivity gaps and proposing a comprehensive connectivity agenda for the Northeast Region. Encouraging private sector investment in connectivity infrastructure was further built into the program.

- The theme for this year is 'Act East from Nagaland'.
   This is particularly apt because of its shared boundary with Myanmar which has now emerged as a democratic country. It is envisaged that Nagaland, due to its unique location, may become the connecting link between Northeast India and Myanmar.
- At the 4th Northeast Connectivity Summit in Kohima from September 22 to 23, a representative of the Embassy of Japan said Tokyo would invest in the region's infrastructure, education and people-topeople sectors. Japan has already undertaken works on road connectivity, energy projects, water supply and sanitation, forest resources management, Japanese language education and post-war reconciliation, which aimed to build a deeper understanding of the actions of Japanese forces in the region during the Second World War.
- The 2018 North East Connectivity Summit will be in Tawang.

http://northeastconnectivity.in/wpcontent/uploads/2017/06/Connect-North-East-Agenda-Summary.pdf

Source and Improvisation:

http://www.thehindu.com/news/international/japankeen-on-friendship-with-northeast/article19747834.ece

- 5. The issue of incorporating caste discrimination into this nation's legislation has been a matter of public debate for a number of years now. The government recently concluded a public consultation on the same issue. The country in question is
  - (a) United Kingdom
  - (b) South Africa
  - (c) United States of America
  - (d) Canada

Solution: a.

The same question was posted here earlier.

Last week the British government concluded a consultation on whether measures against caste discrimination should be included in equality law, to ensure there is "appropriate and proportionate legal protection" against unlawful discrimination because of a person's origins. The consultation has been inviting submissions from late March and attracted substantial interest from Britain's sizeable South Asian diaspora within which the debate on this issue has been raging for years.

In June 2009, the first World Conference on Untouchability took place in London, to explore versions of untouchability in all its forms, bringing together experts and activists from across the globe — from India to Japan and Nigeria. At the conclusion of the conference, delegates issued what has come to be known as the Conway Hall Declaration on Untouchability, calling on all states where such practices were prevalent to introduce legislation to outlaw the practice and undertake programmes of education.

Source: <a href="http://www.thehindu.com/opinion/op-ed/a-fight-against-prejudice/article19747724.ece">http://www.thehindu.com/opinion/op-ed/a-fight-against-prejudice/article19747724.ece</a>

## **Clarification: Q3**

There is **NO** satellite from India that is **CURRENTLY** active which provides us with hyper-spectral images. IMS-1 and Chandrayaan-1 had a mission life of around 2 years. They're "dead" long ago. Besides, the hyper-spectral imager on the Chandrayaan was for images of the moon.

## **SEPTEMBER 26, 2017**

- Which one of the following rivers does the Wular Lake India's largest freshwater lake control the flow of?
  - (a) Indus
  - (b) Jhelum
  - (c) Chenab
  - (d) Gilgit

Solution: b.

Wular lake controls the flow of the Jhelum River, which traverses it. It lies at the north end of the Vale of Kashmir, 32 km north-northwest of Srīnagar. Its area varies from 30 to 260 square km according to the season.

- It is the largest freshwater lake in India with extensive marshes of emergent and floating vegetation, particularly water chestnut, that provide an important source of revenue for the State Government and fodder for domestic livestock.
- The lake supports an important fishing industry and is a valuable source of water for irrigation and domestic use
- The area is important for wintering, staging and breeding birds.

Human activities include rice cultivation and tree farming.



About Bilal Ahmad Dar (5-minute video):

https://youtu.be/B3lOg3oZidc

The Ramsar site, Wular Lake:

https://rsis.ramsar.org/ris/461

https://www.britannica.com/place/Wular-Lake

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=171064

- Which one of the following statements with reference to the recently launched Pradhan Mantri Sahaj Bijli Har Ghar Yojana "Saubhagya" is *incorrect*?
  - (a) Its objective is to ensure electrification of all villages
  - (b) Un-electrified households whether covered or not under the Socio Economic and Caste Census – would be eligible for electricity connections under the scheme
  - (c) Households located in remote and inaccessible areas too will be provided with electricity
  - (d) The Rural Electrification Corporation Limited (REC) will be the nodal agency for the operationalisation of the scheme throughout the country

Solution: a.

Why statement a is incorrect: The scheme Saubhagya's objective is to ensure electrification of all willing households in the country in rural as well as urban areas. The Deendayal Upadhyaya Gram Jyoti Yojana, a different scheme, has the objective of ensuring electrification of all villages. A village would be declared as electrified, if:

- Basic infrastructure such as Distribution Transformer and Distribution lines are provided in the inhabited locality as well as the Dalit Basti hamlet where it exists.
- Electricity is provided to public places like Schools,
   Panchayat Office, Health Centers, Dispensaries,
   Community centres etc.
- The number of households electrified should be at least 10% of the total number of households in the village.

Other features of Saubhagya include:

 The beneficiaries for free electricity connections would be identified using Socio Economic and Caste Census (SECC) 2011 data. However, un-electrified households not covered under the SECC data would also be provided electricity connections under the scheme on payment of Rs. 500 which shall be recovered by DISCOMs in 10 instalments through electricity bill.

- Solar power packs of 200 to 300 Wp with battery bank will be provided for un-electrified households located in remote and inaccessible areas, comprising of Five LED lights, One DC fan, One DC power plug. It also includes a Repair and Maintenance (R&M) component for 5 years.
- States and Union Territories are required to complete the works of household electrification by the 31st of December 2018.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=171101

- 3. She was the first female scientist to earn a doctorate in science from an Indian University and to be elected as the General President of the Indian Science Congress. Her research in organic chemistry had a profound impact on how plants, especially those native to India, are used for medicinal purposes. Google recently honoured her with a Doodle. She is
  - (a) Geetha Bali
  - (b) Archana Sharma
  - (c) Janaki Ammal
  - (d) Asima Chatterjee

Solution: d.

- Dr. Chatterjee primarily studied the medicinal properties of plants native to India. Throughout her career, her research contributed to the development of drugs that treated epilepsy (Ayush-56) and malaria.
- Dr. Chatterjee's most noted contribution to the field, however, was her work on vinca alkaloids. Alkaloids are compounds made from plants, often to treat medical ailments. Vinca alkaloids, which come from the Madagascar periwinkle plant, are used today in chemotherapy treatment because they help slow down or stall the multiplying of cancer cells. (NOTE: A simple and straightforward question could also be asked by UPSC on Vinca Alkaloids or Ayush-56).
- Dr. Chatterjee's groundbreaking contributions to medicine were recognized by universities all over the world. She received numerous accolades from the Indian government, including some of the highest awards (like the Padma Bhushan) and an appointment to the upper house of Parliament.

https://www.theverge.com/2017/9/23/16352868/who-is-asima-chatterjee-google-doodle

http://www.ias.ac.in/public/Resources/Initiatives/Women \_in Science/Contributors/Chatterjee.pdf

Improvisation:

https://www.google.com/doodles/asima-chatterjees-100th-birthday

- **4.** The 'Great Green Wall' project seeks to restore native plant life to a landscape found in which one of the following regions?
  - (a) Across Africa in the Sahel-Sahara region
  - (b) Across North America through the USA-Mexico border region
  - (c) Along the length of west of the Aravalli range
  - (d) Amazon rainforest

Solution: a.

Eleven countries joined hands in 2007 to combat land degradation and restore native plant life to the landscape – the Sahel-Sahara region. The project has since expanded to include countries in both northern and western Africa. The green wall, when completed, will stretch across the entire width of the continent (approximately 8,000kms).

In recent years, northern Africa has seen the quality of arable land decline significantly due to climate change and poor land management. Desertification is aggravating the problem. Uniting under the banner of the "Great Green

Wall" initiative, national and regional leaders hope to reverse this trend.

The World Bank, UN, and the African Union, among others, have pledged funds for this project. So far, Senegal has made the best progress under this project.

- The project focuses on planting Acacia trees which are drought resistant and the roots help retain water in the soil. Wells that were devoid of any water now have enough of it to help cultivate crops.
- Fallen leaves are used as compost, and presence of trees has increased the humidity in this dry region. The shade provided by the trees reduces loss of water, thereby further reducing the requirement of water for crops.
- Women are increasingly finding work, children are attending and staying back in school for longer than before. The "wall" has helped generate a new economy.
- It is also preventing people from migrating.

http://www.bbc.com/news/av/magazine-41391844/why-is-africa-building-a-great-green-wall

http://www.greatgreenwall.org/great-green-wall/#great-green-wall-internal

- **5.** Which (one) of the following UN conventions has India ratified/acceded to?
  - 1. Convention Against Torture
  - 2. Convention on the Elimination of All Forms of Racial Discrimination
  - 3. Convention on the Rights of Persons with Disabilities

Select the correct answer using the code given below:

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

Solution: b.

India signed the treaty (Convention Against Torture) 20 years ago, but never ratified it. In 2010, the Bill was sent to a Parliamentary Committee whose recommendations were never accepted, and the Bill lapsed in 2014. At Geneva, 30 countries, including Germany, Australia, Japan, Israel and Russia, called on India to ratify the convention. Rohatgi argued that "the concept of torture is completely alien to our culture and it has no place in the governance of the nation", but promised to ratify the Convention on September 21. India had made a similar promise in 2012, when it faced the second Universal Periodic Review (under the UN Human Rights Council) cycle.

List of some UN human rights-related treaties and India's ratification status:

http://tbinternet.ohchr.org/ layouts/TreatyBodyExternal/ Treaty.aspx?CountryID=79&Lang=EN

## Improvisation:

http://indianexpress.com/article/explained/un-human-rights-review-what-india-accepted-what-it-merely-noted-4861150/

Glossary of terms relating to treaty actions:

https://treaties.un.org/pages/overview.aspx?path=overview/glossary/page1\_en.xml

## **SEPTEMBER 27, 2017**

- **1.** The recently launched portal, "PENCIL", is an initiative of the
  - (a) Ministry of Home Affairs
  - (b) Ministry of Women and Child Development
  - (c) Ministry of Human Resource Development
  - (d) Ministry of Labour and Employment

Solution: d.

The Platform for Effective Enforcement for No Child Labour (PENCIL) Portal was recently launched at the National Conference on Child Labour organised by the Ministry of Labour and Employment, Government of India. PENCIL is an electronic platform that aims at involving Centre, State, District, Governments, civil society and the general public in achieving the target of child labour free society. Standing Operating Procedures (SOPs) for the enforcement of legal framework against child labour was also launched.

Expressing happiness over the release of PENCIL portal, Shri Kailash Satyarthi said that today is a historic day for India. "India is telling the world that it will give PENCIL in the hands of children and not tools to work", he added. He emphasised that the top leadership should be involved in these campaigns. He said that PENCIL and SOPs are important not only for India but also for the world in showing a new direction to them. He said this proves that fact that technology can be converted into instruments of social upliftment and power.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=171124

- **2.** "RE-Invest" expos will enable the Indian state to fulfil which one of the following directive principles?
  - (a) Promotion of cottage industries on an individual or co-operation basis in rural areas
  - (b) Protection and improvement of the environment and safeguarding forests
  - (c) Raising the level of nutrition of people to improve public health
  - (d) Providing early childhood care and education for all children until they complete the age of six years

Solution: b.

**Global RE-Invest 2017** is being organised in partnership with the **International Solar Alliance (ISA)**. It will deliberate upon and evolve strategies for financing renewable energy and also showcase the Government of India's commitment to the development and scaling up of **renewable energy** to meet the national energy requirement in a socially, economically and ecologically sustainable manner.

Global Renewable Energy Investors' Meet & Expo is organised by the Ministry of New and Renewable Energy in partnership with the Indian Renewable Energy Development Agency (IREDA), the Confederation of Indian Industry (CII) and the Federation of Indian Chambers of Commerce (FICCI), with YES Bank as the knowledge partner.

Improvisation:

https://re-invest.in/about-re-investment/the-events/

- **3.** The Ministry of Agriculture's 'Seven-point Strategy' to double farmers' income by 2022 does *not* include which one of the following?
  - (a) Promotion of value addition through food processing

Solution: c.

The Seven-point Strategy includes:

- Increasing production (by improving irrigation efficiency)
- Effective use of input cost (through initiatives such as the Soil Health Card Scheme and Neem-coated Urea)

- (b) Giving impetus to allied agricultural activities such as dairy processing and inland fisheries
- (c) Replacing the Minimum Support Price framework with a Deficiency Payments framework
- (d) Reducing risks faced by farmers by way of providing insurance coverage
- Reduction of post-harvest losses (by providing loans against negotiable warehouse receipts with interest subvention benefits, building storage facilities and integrated cold chains in rural areas)
- Value addition (through food processing)
- Reforms in agriculture marketing (through initiatives such as e-NAM, circulating a model APMC act)
- Risk, Security and Assistance (PM Fasal Bima Yojana)
- Promotion of Allied Activities (such as horticulture, integrated farming, white and blue revolution, agroforestry, Beekeeping and rural backyard poultry development)

Seven-point Strategy:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=170628

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=171123

- 4. The secretary of which one of the following ministries/departments is **not** included in the 'High Level Forum on 5G India 2020' constituted recently?
  - (a) Department of Telecom
  - (b) Department of Industrial Policy and Promotion
  - (c) Ministry of Electronics and Information Technology
  - (d) Department of Science and Technology

Solution: b.

"We missed the opportunity to participate when the standards were being set for 3G and 4G, and don't want to miss the 5G opportunity. Now, when the standards are being set for 5G across the world, India will also participate in the process," **Minister of State for Communications** Manoj Sinha told reporters.

The Government has constituted **High Level 5G India 2020 Forum** with **three Secretaries** of key Ministries/Departments namely **Telecom**, **Meity** and **DST**, and also comprising of renowned experts.

As per the OECD (Organization for Economic Cooperation and Development) Committee on Digital Economic Policy, 5G technologies rollout will help in

- a) Increasing GDP
- b) Creating Employment
- c) Digitizing the economy.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=171113

http://www.thehindu.com/business/Industry/govt-eyes-5g-roll-out-by-2020/article19756589.ece?homepage=true

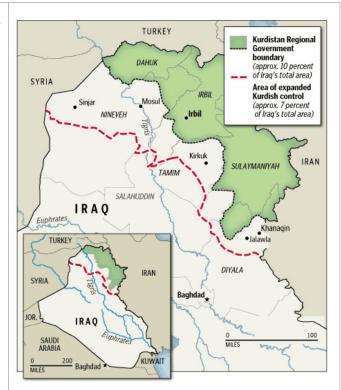
- 5. The jurisdiction of the 'Kurdistan Regional Government (KRG)' extends to regions within which of the following list of countries?
  - 1. Turkey
  - 2. Iran
  - 3. Iraq
  - 4. Syria

Solution: c.

- With reference to the KRG-administered territory: It borders Syria to the west, Iran to the east, and Turkey to the north, lying where fertile plains meet the Zagros mountains.
- Iraq's Constitution recognises the Kurdistan Regional Government and the Kurdistan Parliament as the region's formal institutions and the Peshmerga forces as the Region's legitimate security guard.

http://cabinet.gov.krd/p/page.aspx?l=12&s=050000&r=30 0&p=210 Select the correct answer using the code given below:

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



#### Improvisation:

http://www.thehindu.com/news/international/iraqskurds-to-vote-in-historic-referendum-onindependence/article19741199.ece

http://www.thehindu.com/news/international/kurds-signal-desire-for-independence/article19758060.ece

## **SEPTEMBER 28, 2017**

- **1.** With reference to 'Quality Council of India (QCI)', consider the following statements:
  - QCI was set up jointly by the Government of India and the Indian Industry.
  - 2. Chairman of QCI is appointed by the Prime Minister on the recommendations of the industry to the Government.

Which of the above statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **2.** With reference to Gravitational Waves (GW), consider the following statements:
  - Massive GW, such as those caused by black hole mergers, momentarily cause the Earth to stretch and squeeze

## Solution: c.

- The Quality Council of India (QCI) is a pioneering experiment of the Government of India in setting up organizations in partnership with the Indian industry.
- QCI is governed by a Council comprising of 38 members including the Chairman and Secretary General where the Chairman is nominated by Prime Minister of India.

### Q39, CS(P) 2017:

http://www.insightsonindia.com/2017/06/19/answerkey-upsc-civil-services-prelims-exam-2017-generalstudies-paper-1/

#### Source and improvisation:

http://indianexpress.com/article/opinion/columns/swachh-bharat-campaign-open-defacation-pm-narendra-modi-4864496/

#### Solution: c.

 Gravitational waves are ripples in space and time caused by cataclysmic events in the Universe such as the collision of two black holes or the explosion of a giant star. 2. More the distance between facilities that can sense GW, greater is the accuracy with which the source area of waves can be identified

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

- They can be thought of as ripples in a pond caused by a pebble. But the pebble is the cataclysmic event and the fabric of the Universe, including everything and everyone on Earth is the water. Just as the water ripples, all matter is momentarily distorted as the gravitational wave passes through. But the distortions are minute the entire Earth is stretched and squeezed by less than the width of an atom.
- Gravitational detectors in the US and more recently in Italy have been able to detect this tiny warping effect – which was predicted by Albert Einstein 102 years ago.
- Two labs in the US operated by the LIGO scientific collaboration made the initial discoveries in September and December 2015 and in January this year. These facilities were built a long way apart one in Livingston, Louisiana, and the other in Hanford, Washington State so that there would be a slight difference in the time when each sensed the passing waves. This delay enabled researchers to calculate very approximately where on the sky the collisions had occurred.
- But the area of uncertainty was huge a region that 3,000 full moons would occupy. This has now changed with the addition of a third detection system based near Pisa in Italy run by the VIRGO scientific collaboration. Having all three labs sense the waves narrows down the source to an area of just 300 full moons.
- Although that still seems very uncertain, it makes all the difference to astronomers who want to try to see if there is any electromagnetic radiation (light at all wavelengths) also emanating from a collision – information that could yield further insights on the event.

http://www.bbc.com/news/world-australia-41420188

GW explained: https://youtu.be/4GbWfNHtHRg

- 3. 'BNDES', 'CDS', 'VEB' are foreign institutions, each belonging to different members of the BRICS grouping. Which one of the following Indian institutions is their counterpart?
  - (a) Export-Import Bank of India
  - (b) Reserve Bank of India
  - (c) Securities and Exchange Board of India
  - (d) Defence Research and Development Organisation

Solution: a.

A GK question; meant to make you aware of the existence of an interbank cooperation mechanism between BRICS countries.

- The Union Cabinet recently gave its approval to the signing of the (i) Interbank Local Currency Credit Line Agreement and (ii) Cooperation Memorandum Relating to Credit Ratings by Exim Bank with participating member banks under BRICS Interbank Cooperation Mechanism.
- Signing of the Agreement will position Exim Bank in the international platform along with large development finance institutions, like CDS, VEB and BNDES. At an appropriate time, Exim Bank, leveraging

this umbrella agreement, could enter into bilateral agreement with any of these member institutions to raise resources for its business. As and when an opportunity arises for co-financing in commercial terms, by any two member institutions (say India and South Africa), lending in single currency by both the institutions would also be possible.

http://pib.nic.in/newsite/PrintRelease.aspx?relid=171175

- **4.** Which of the following fundamental rights enshrined in our constitution is/are available to both citizens and foreigners?
  - Prohibition of discrimination on grounds of religion
  - 2. Protection of life and personal liberty
  - 3. Protection of the freedom of movement and residence

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3
- **5.** Consider the following statements:
  - The Solid Waste Management Rules, 2016 make it mandatory for fertiliser companies to co-market compost
  - 2. Compost usage in farms enhances water holding capacity of the soil

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.

## Table 7.2 Fundamental Rights (FR) of Foreigners

FR available only to citizens and not to foreigners

- Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth (Article 15).
- 2. Equality of opportunity in matters of public employment (Article 16).
- Protection of six rights regarding freedom of: (i) speech and expression, (ii)
  assembly, (iii) association, (iv) movement, (v) residence, and (vi) profession
  (Article 19).
- 4. Protection of language, script and culture of minorities (Article 29).
- 5. Right of minorities to establish and administer educational institutions (Article

30).

## Table 7.2, Indian Polity by M Laxmikanth;

#### Improvisation:

http://indianexpress.com/article/opinion/columns/the-rohingya-threat-rohingya-crisis-muslims-myanmar-rakhine-bangladeh-kg-suresh-4862759/

Solution: c.

Both statements are correct.

**Organic manure** or **compost** plays a very important role as a supplement to chemical fertilisers in replenishing the nutrient-depleted soils.

- The water holding capacity of the soil which uses compost helps with drought-proofing, and the requirement of less water per crop is a welcome feature for a water-stressed future.
- By making soil porous, use of compost also makes roots stronger and resistant to pests and decay.
   Farmers using compost therefore need less quantity of pesticides.
- There is also evidence to suggest that horticulture crops grown with compost have better flavour, size, colour and shelf-life.
- City compost has the additional advantage of being weed-free unlike farmyard manure which brings with it the seeds of undigested grasses and requires a substantial additional labour cost for weeding as the crops grow.
- Compost in Integrated Plant Nutrient Management:

- City compost is also rich in organic carbon, and our soils are short in this. Fortification of soil with organic carbon increases the productivity of other fertilisers.
- Chemical fertilisers when used by themselves pollute surface water with nitrogen runoff because only 20 per cent to 50 per cent of the nitrogen in urea is absorbed by plants. The rest runs off into streams and lakes. The addition of compost or organic manure reduces nitrogen wastage, as its humus absorbs the nitrogen and acts like a slow release sponge.

http://indianexpress.com/article/opinion/columns/swach h-bharat-mission-solid-waste-management-from-wasteto-health-4862741/

## **SEPTEMBER 29, 2017**

- In a world's first, Chinese researchers performed a precise "chemical surgery" on human embryos to remove the disease beta-thalassemia. Which one of the following techniques of gene-editing was used for this purpose?
  - (a) Base editing
  - (b) CRISPR
  - (c) Talen
  - (d) Zinc Fingers

Solution: a.

Base editing is an advance on a form of gene-editing known as Crispr, that is already revolutionising science.

- Crispr breaks DNA. When the body tries to repair the break, it deactivates a set of instructions called a gene. This presents an opportunity to insert new genetic information.
- Base editing works on the DNA bases themselves to convert one into another.
- Base editing technique is more efficient and has fewer unwanted side-effects than Crispr. About two-thirds of known human genetic variants associated with disease are point mutations. So base editing has the potential to directly correct, or reproduce for research purposes, many pathogenic [mutations].
- Some scientists questioned as to why they (Chinese researchers) did not do more animal research before jumping to human embryos and said the rules on embryo research in other countries would have been "more exacting".

http://www.bbc.com/news/health-41386849

- **2.** Consider the following statements:
  - The Defence Technology and Trade Initiative between India and USA aims at exploring possibilities of co-development and coproduction of defence projects
  - 2. The recent Xiamen BRICS declaration listed Pakistan-based terror organisations for the first time

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 Xiamen BRICS declaration earlier this month listed Pakistan-based terror organisations for the first time. It is not surprising, therefore, that Pakistan's Foreign Minister has had to admit that terrorist Hafiz Saeed and terror group Lashkar-e-Taiba (LeT) are a "liability" for his country and for the South Asian region.
- India and the United States have launched a Defence Technology and Trade Initiative (DTTI) aimed at simplifying technology transfer policies and exploring possibilities of co-development and co-production to invest the defence relationship with strategic value.

Source and Improvisation:

http://www.thehindu.com/opinion/op-ed/expanding-the-common-ground/article19771645.ece

http://www.mea.gov.in/Portal/ForeignRelation/India US brief.pdf

- **3.** Consider the following statements:
  - 1. The financial allocation for the rural and urban components of the Swachh Bharat Mission is proportional to the respective populations
  - 2. The growth rate of our population in urban areas is lower than in rural areas

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.

A mains-oriented question.

For 2017-18, the government has allocated ₹13,948 crore for the Swachh Bharat Mission-Gramin (SBM-G) project; for the Swachh Bharat Mission-Urban (SBM-U) project, the allocation was merely ₹2,300 crore. This has to be seen in the light of the 2011 Census, according to which 31.16% of the total population lives in urban areas. Also, the growth of population in urban areas is 32% over a decade and rural is 12%. The fact that the urban population is growing at a much more rapid rate has been ignored by the government.

#### Growth Rate of Population (in %)

	1991-2001	2001-2011	Difference
India	21.5	17.6	-3.9
Rural	18.1	12.2	-5.9
Urban	31.5	31.8	+0.3

http://www.thehindu.com/opinion/op-ed/will-swachh-bharat-abhiyan-be-a-success/article19771542.ece

- **4.** The Private Detective Agencies (Regulation) Bill, 2007
  - 1. Requires every agent of private detective agencies to acquire a license
  - 2. Prescribes punishments for any agent of the private detection agency violating a person's right to privacy and freedom
  - 3. Specifies that a private detective must be an Indian citizen

Which of the statements given above is/are correct?

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

Solution: b.

- Every private detective agency will require a licence to operate. Licences shall be granted by regulation boards established at the central and state level. In a number of other countries that regulate private detectives, it is the agent that is licensed rather than the agency.
- Any agent violating a person's right to privacy and freedom shall be punishable with imprisonment and a fine.
- The Bill specifies that a private detective must be an Indian citizen. Such a requirement does not exist in similar legislation in several other countries.

http://www.prsindia.org/uploads/media/Private%20Detective/legis1223890689 The Private Detective Agencies\_Regulation Bill 2007.pdf

Improvisation:

http://www.thehindu.com/opinion/op-ed/an-eye-on-the-private-eye/article19771623.ece

- **5.** Which one of the following sections of the RTI Act permits bodies that come within the ambit of the act to refuse disclosure of information?
  - (a) 24
  - (b) 12
  - (c) 8
  - (d) 4

Solution: c.

The same question was posted here earlier.

Section 4 deals with voluntary disclosure by public authorities.

Section 8 of the RTI Act lists the matters relating to which information can be exempted from being disclosed.

RTI Act:

https://www.iitg.ernet.in/rti/links/rti-act-updated-on-2011.pdf

In the news: See image.

# CIC: Right to privacy not an excuse to deny info

CHENNAI

The Central Information
Commission (CIC) has upheld
the right to information over
the right to privacy in a case
concerning the National
Commission for Protection of
Child Rights denying
information on cases pending
with it. It said the request for
information on the four-yearold complaints was in
public interest.

## **SEPTEMBER 30, 2017**

- **1.** The Global Wildlife Programme aims to promote wildlife conservation and sustainable development by
  - (a) Protecting keystone species
  - (b) Accelerating national afforestation projects in Asia, Africa and South America
  - (c) Combating illicit trafficking in wildlife
  - (d) Studying what wildlife species need, to thrive

Solution: c.

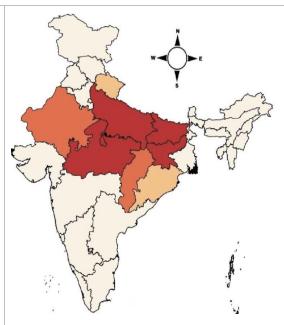
In an attempt to address illegal wildlife trade across 19 countries of Asia and Africa, India is hosting the Global Wildlife Programme (GWP) jointly with World Bank and United Nations Development Programme.

- The Global Environment Facility (GEF) in June 2015 launched the "Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development" program also known as the Global Wildlife Program (GWP).
- The GWP is a World-Bank led global partnership that promotes wildlife conservation and sustainable development by combatting illicit trafficking in wildlife. By approaching the poaching crisis holistically through various country projects and a larger global project, it seeks to reduce both the supply and demand that drives the illegal wildlife trade, and protect species and habitats through integrated landscape planning.
- The program also focuses on improving wildlife management, providing livelihood opportunities through tourism, and improving governance throughout the supply chain for illegal wildlife

products. In addition, the program will support integrated landscape management, land use zoning and natural resource management best practices. http://www.worldbank.org/en/topic/environment/brief/g lobal-wildlife-program http://pib.nic.in/newsite/PrintRelease.aspx?relid=171254 2. The Global Wildlife Programme Solution: a. Is a World-Bank led global partnership In addition to the explanation provided for the first question, some additional points: Is being implemented in some countries across Africa and Asia Currently, the GWP has programmes in 19 countries Was initiated in the 1990s across Africa and Asia. The implementing agencies channeling the funds to Which of the statements given above is/are correct? the governments or other partners for the national (a) 1 and 2 only projects are the (b) 3 only World Bank Group, **Programme** (c) 1, 2 and 3 United Nations Development (UNDP), (d) None of the above United Nations Environment **Programme** (UNEP), and Asian Development Bank (ADB). GWP also collaborates with the International Consortium to Combat Wildlife Crime (ICCWC) and other donors and conservation partners such as: Wildlife Conservation Society, CITES, WWF, IUCN, TRAFFIC etc. http://www.worldbank.org/en/topic/environment/brief/g lobal-wildlife-program http://pib.nic.in/newsite/PrintRelease.aspx?relid=171254 3. The 'Empowered Action Group' States of India does Solution: d. not include which one of the following states? There are Eight Empowered Action Group States: Bihar, (a) Madhya Pradesh Jharkhand, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Orissa and Rajasthan; often, the mention of (b) Bihar "EAG States" is followed by a mention of Assam. These nine

- (c) Rajasthan
- (d) West Bengal

States, which account for about 48 percent of the total population in the country, are the high focus States in view of their relatively higher fertility and mortality indicators.



Additional Information: India has registered a significant decline in Infant Mortality Rate (IMR). According to the just released Sample Registration Survey bulletin, IMR of India has declined by three points, from 37 per 1000 live births in 2015 to 34 per 1000 live births in 2016, compared to two points decline last year. Further, the gender gap in India for child survival is reducing steadily. The gender difference between female and male IMR has now reduced to <10%, giving a major boost to the 'Beti Bachao Beti Padhao' scheme of the Government.

Source for

http://censusindia.gov.in/vital\_statistics/AHSBulletins/file\_s/AHSpr.pdf

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=171251

- **4.** "Deep Ocean Mission" is a programme to be initiated by
  - (a) Ministry of Defence
  - (b) Ministry of Earth Sciences
  - (c) Ministry of Petroleum and Natural Gas
  - (d) Department of Space

Solution: b.

The same question was posted here earlier.

The Ministry of Earth Sciences, Government of India is all set to launch 'Deep Ocean Mission' by January 2018. Making the announcement, M Rajeevan, Secretary of Ministry of Earth Sciences, confirmed the participation of seven premier science agencies including NIO, ISRO and DRDO in the venture. Deep Ocean Research will include, for instance, exploration and exploitation of polymetallic nodules in the Central Indian Ocean Basin, upto depths of around 5,000-6,000 metres.

From May 2017:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=163263

Improvisation:

http://pib.nic.in/newsite/PrintRelease.aspx?relid=171266

- **5.** Consider the following statements:
  - 1. According to Census 2011, roughly ten percent of urban Indians own a car
  - 2. Currently, production of mild hybrid vehicles are not incentivised under the Faster Adoption and Manufacturing of Hybrid and Electric Vehicle Programme

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.

- We have unique reasons for faster adoption of electric vehicles. Our vehicle ownership is still minuscule, particularly if you count cars. The 2011 Census found that roughly 10 per cent of urban Indians owned a car. All in all, a large section is yet to move to vehicle ownership, so it can motorise differently.
- Earlier this year, the Centre for Science and Environment had put out a detailed analysis of the first phase of the *Faster Adoption and Manufacturing of Hybrid and Electric Vehicle (FAME) programme*. They found that the incentive scheme had willy-nilly pushed mild diesel hybrid cars in the name of notching up numbers in electro-mobility. Since then much has changed. The revised FAME programme will not incentivise mild hybrids (this technology only assists normal engines by using recovered energy, for instance, during braking). It also puts the thrust on electric buses, which have the big potential to change not just vehicles, but mobility.
- E-vehicles, if they use fossil energy—that is, coal or even natural gas used in power plants—will displace carbon dioxide generation but not replace it. In other words, there will still be pollution, but it will no longer come from the tail-pipe of a car, but the smokestack of a power plant. But e-vehicles provide solutions to local air pollution, which we desperately need. They will also reduce the fuel import bill.

http://www.downtoearth.org.in/blog/e-vehicles-or-e-mobility-58751

http://www.insightsonindia.com/2017/09/30/6-india-plan-e-mobility-not-e-vehicles-comment/

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