

Q.1) Consider the following statements about 'Council of Ministers'

1. The total number of ministers in the Council of Ministers must not exceed 15% of the total number of members of the House of the People
2. Ministers must be members of parliament

Select the correct statements

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

Q.1) Solution (c)

Per Article 75(3), the Council of Ministers is responsible collectively to the lower house of the Indian Parliament, called the Lok Sabha (House of People). When a bill introduced by a minister in the Lok Sabha is not approved by it, entire council of ministers is responsible and not the minister. The council of ministers upon losing confidence of Lok Sabha shall resign to facilitate new government formation.

A minister shall not take any decision without being considered by the council of ministers per Article 78(c). All union cabinet members shall submit in writing to the President to propose proclamation of emergency by the president per Article 352.

According to the Constitution of India, the total number of ministers in the Council of Ministers must not exceed 15% of the total number of members of the House of the People. Ministers must be members of parliament. Any minister who is not a member of either the lower or upper houses of parliament for six consecutive months is automatically stripped off his or her ministerial post.

Per Article 75, a minister who works at the pleasure of President is appointed by the President on the advice of the Prime Minister.

Removal

- Upon self-resignation
- Upon dismissal by the President for minister's unconstitutional acts per Article 75(2).
- Upon direction from the Judiciary for committing violation of law.
- Upon ceasing eligibility to be a Member of Parliament.

It is nowhere stated in the constitution, a minister can be removed by the Prime Minister at his will.

Source: <http://timesofindia.indiatimes.com/india/modi-cabinet-reshuffle-full-list-of-pm-modis-council-of-ministers/articleshow/60348346.cms>

Q.2) H5N1 was in news recently. It is concerned with which of the following diseases?

- a) Avian Influenza
- b) Swine Flu
- c) Tuberculosis
- d) Pneumonia

Q.2) Solution (a)

The Department of Animal Husbandry, Dairying and Fisheries in the Ministry of Agriculture and Farmers welfare has declared India free from Avian Influenza (H5N1)

Source: <http://www.hindustantimes.com/india-news/india-declares-itself-free-from-h5n1-and-h5n8-bird-flu/story-XC2H6cZzD9B50GUp0JLbfP.html>

Q.3) Consider the following statements about 'Institute De Droit International'

1. It was awarded the Nobel Peace Prize in 1904 for its efforts to promote settlement of disputes among States through peaceful means.
2. India hosted the Session of Institute of International Law for the first time in 2017

Select the correct statements

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

Q.3) Solution (c)

It's the first time that India is hosting this global legal meeting. The International Institute of Law or Institute De Droit International was founded in 1873 in the Ghent Town Hall in Belgium by 11 international lawyers. It was awarded the Nobel Peace Prize in 1904 for its efforts to promote settlement of disputes among States through peaceful means.

The institute selects 132 lawyers from different countries to act independently towards international legal measures.

Source: <http://www.thehindu.com/news/national/telangana/india-a-major-stakeholder-in-global-peace-says-vice-president/article19616169.ece>

Q.4) Consider the following statements about 'India's tiger population'

1. The northwest cluster consist tigers only from Ranthambore
2. The tigers from the central cluster have the least genetic diversity

Select the correct statements

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

Q.4) Solution (a)

India's tigers comprise three distinct populations: the northwest cluster (consisting only of tigers from Ranthambore), southern (south India) and central (comprising tigers from the Terai, northeast and central India). While the isolated Ranthambore population had the least genetic diversity, the central cluster — which is also the most connected — harboured the highest. Large seemingly more connected populations have more diversity than smaller isolated ones.

Ranthambore population, being cut off from other tiger populations, could be at risk in future due to inbreeding, which could decrease genetic variation in the population already at risk.

Source: <http://www.thehindu.com/sci-tech/science/habitat-connectivity-crucial-for-tigers/article19610328.ece>

Q.5) Which part of the sun is visible during a total solar eclipse?

- a) Photosphere
- b) Corona
- c) Heliosphere
- d) Chromosphere

Q.5) Solution (b)

The corona is the outermost layer of the Sun, starting at about 1300 miles (2100 km) above the solar surface (the photosphere). The temperature in the corona is 500,000 K (900,000 degrees F, 500,000 degrees C) or more, up to a few million K. The corona cannot be seen with the naked eye except during a total solar eclipse, or with the use of a coronagraph. The corona does not have an upper limit.

During a total solar eclipse, the disk of the moon blocks out the last sliver of light from the sun, and the sun's outer atmosphere, the corona, becomes visible

Source: <http://www.thehindu.com/sci-tech/science/great-american-solar-eclipse-studying-the-suns-corona/article19529746.ece>

Q.6) Consider the following statements about

1. International Tribunal for the Law of the Sea (ITLOS) established by the United Nations Convention on the Law of the Sea
2. International Seabed Authority was established by the United Nations Convention on the Law of the Sea
3. ITLOS is based in Montego Bay, Jamaica

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.6) Solution (a)

The International Tribunal for the Law of the Sea is an independent judicial body established by the United Nations Convention on the Law of the Sea to adjudicate disputes arising out of the interpretation and application of the Convention. The Tribunal is composed of 21 independent members, elected from among persons enjoying the highest reputation for fairness and integrity and of recognized competence in the field of the law of the sea.

The Tribunal has jurisdiction over any dispute concerning the interpretation or application of the Convention, and over all matters specifically provided for in any other agreement which confers jurisdiction on the Tribunal (Statute, article 21). The Tribunal is open to States Parties to the Convention (i.e. States and international organisations which are parties to the Convention). It is also open to entities other than States Parties, i.e., States or intergovernmental organisations which are not parties to the Convention, and to state

enterprises and private entities "in any case expressly provided for in Part XI or in any case submitted pursuant to any other agreement conferring jurisdiction on the Tribunal which is accepted by all the parties to that case" (Statute, article 20).

The United Nations Convention on the Law of the Sea was opened for signature at Montego Bay, Jamaica, on 10 December 1982. It entered into force 12 years later, on 16 November 1994. A subsequent Agreement relating to the implementation of Part XI of the Convention was adopted on 28 July 1994 and entered into force on 28 July 1996. This Agreement and Part XI of the Convention are to be interpreted and applied together as a single instrument.

The origins of the Convention date from 1 November 1967 when Ambassador Arvid Pardo of Malta addressed the General Assembly of the United Nations and called for "an effective international regime over the seabed and the ocean floor beyond a clearly defined national jurisdiction". This led to the convening, in 1973, of the Third United Nations Conference on the Law of the Sea, which after nine years of negotiations adopted the Convention.

The Convention establishes a comprehensive legal framework to regulate all ocean space, its uses and resources. It contains, among other things, provisions relating to the territorial sea, the contiguous zone, the continental shelf, the exclusive economic zone and the high seas. It also provides for the protection and preservation of the marine environment, for marine scientific research and for the development and transfer of marine technology. One of the most important parts of the Convention concerns the exploration for and exploitation of the resources of the seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction (the Area). The Convention declares the Area and its resources to be "the common heritage of mankind". The International Seabed Authority, established by the Convention, administers the resources of the Area.

Part XV of the Convention lays down a comprehensive system for the settlement of disputes that might arise with respect to the interpretation and application of the Convention. It requires States Parties to settle their disputes concerning the interpretation or application of the Convention by peaceful means indicated in the Charter of the United Nations. However, if parties to a dispute fail to reach a settlement by peaceful means of their own choice, they are obliged to resort to the compulsory dispute settlement procedures entailing binding decisions, subject to limitations and exceptions contained in the Convention.

The mechanism established by the Convention provides for four alternative means for the settlement of disputes: the International Tribunal for the Law of the Sea, the International Court of Justice, an arbitral tribunal constituted in accordance with Annex VII to the Convention, and a special arbitral tribunal constituted in accordance with Annex VIII to the Convention.

A State Party is free to choose one or more of these means by a written declaration to be made under article 287 of the Convention and deposited with the Secretary-General of the United Nations (declarations made by States Parties under article 287).

If the parties to a dispute have not accepted the same settlement procedure, the dispute may be submitted only to arbitration in accordance with Annex VII, unless the parties otherwise agree.

Pursuant to the provisions of its Statute, the Tribunal has formed the following Chambers: the Chamber of Summary Procedure, the Chamber for Fisheries Disputes, the Chamber for Marine Environment Disputes and the Chamber for Maritime Delimitation Disputes.

At the request of the parties, the Tribunal has also formed special chambers to deal with the Case concerning the Conservation and Sustainable Exploitation of Swordfish Stocks in the South-Eastern Pacific Ocean (Chile/European Community) and the Dispute Concerning Delimitation of the Maritime Boundary between Ghana and Côte d'Ivoire in the Atlantic Ocean (Ghana/Côte d'Ivoire).

Disputes relating to activities in the International Seabed Area are submitted to the Seabed Disputes Chamber of the Tribunal, consisting of 11 judges. Any party to a dispute over which the Seabed Disputes Chamber has jurisdiction may request the Seabed Disputes Chamber to form an ad hoc chamber composed of three members of the Seabed Disputes Chamber.

The Tribunal is open to States Parties to the Convention and, in certain cases, to entities other than States Parties (such as international organizations and natural or legal persons) (Access to the Tribunal).

The jurisdiction of the Tribunal comprises all disputes submitted to it in accordance with the Convention. It also extends to all matters specifically provided for in any other agreement which confers jurisdiction on the Tribunal. To date, twelve multilateral agreements have been concluded which confer jurisdiction on the Tribunal (relevant provisions of these agreements).

Unless the parties otherwise agree, the jurisdiction of the Tribunal is mandatory in cases relating to the prompt release of vessels and crews under article 292 of the Convention and to provisional measures pending the constitution of an arbitral tribunal under article 290, paragraph 5, of the Convention.

The Seabed Disputes Chamber is competent to give advisory opinions on legal questions arising within the scope of the activities of the International Seabed Authority. The Tribunal may also give advisory opinions in certain cases under international agreements related to the purposes of the Convention.

The International Tribunal for the Law of the Sea (ITLOS) is an intergovernmental organization created by the mandate of the Third United Nations Conference on the Law of the Sea. It was established by the United Nations Convention on the Law of the Sea, signed at Montego Bay, Jamaica, on December 10, 1982. The Convention entered into force on November 16, 1994, and established an international framework for law over "all ocean space, its uses and resources". The tribunal is based in Hamburg, Germany. The Convention also established the International Seabed Authority, with responsibility for the regulation of seabed mining beyond the limits of national jurisdiction, that is beyond the limits of the territorial sea, the contiguous zone and the continental shelf. There are currently 167 signatories, 166 states plus the European Union.

The Tribunal is composed of 21 independent members elected by secret ballot by the States Parties to the Convention. Each State Party may nominate up to two candidates from among persons enjoying the highest reputation for fairness and integrity and of recognized competence in the field of the law of the sea.

No two members may be nationals of the same State and in the Tribunal as a whole it is necessary to assure the representation of the principal legal systems of the world and equitable geographical distribution; there shall be no fewer than three members from each geographical group as established by the General Assembly of the United Nations (African States, Asian States, Eastern European States, Latin American and Caribbean States and Western European and Other States). Members are elected for nine years and may be re-elected; the terms of one third of the members expire every three years.

Source: <http://www.thehindubusinessline.com/economy/logistics/women-are-no-more-at-sea-in-the-shipping-industry/article9840742.ece>

Q.7) Consider the following statements about Responsibility to Protect (R2P)

1. It is a global political commitment which was endorsed by all member states of the United Nations at the 2000 Millennium Summit
2. R2P principle reinforces sovereignty by helping states to meet their existing responsibilities

Select the correct statements

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

Q.7) Solution (b)

The Responsibility to Protect (R2P or RtoP) is a global political commitment which was endorsed by all member states of the United Nations at the 2005 World Summit to prevent genocide, war crimes, ethnic cleansing and crimes against humanity.

The principle of the Responsibility to Protect is based upon the underlying premise that sovereignty entails a responsibility to protect all populations from mass atrocity crimes and human rights violations. The principle is based on a respect for the norms and principles of international law, especially the underlying principles of law relating to sovereignty, peace and security, human rights, and armed conflict.

The Responsibility to Protect provides a framework for employing measures that already exist (i.e., mediation, early warning mechanisms, economic sanctions, and chapter VII powers) to prevent atrocity crimes and to protect civilians from their occurrence. The authority to employ the use of force under the framework of the Responsibility to Protect rests solely with United Nations Security Council and is considered a measure of last resort. The United Nations Secretary-General has published annual reports on the Responsibility to Protect since 2009 that expand on the measures available to governments, intergovernmental organizations, and civil society, as well as the private sector, to prevent atrocity crimes.

The Responsibility to Protect has been the subject of considerable debate, particularly regarding the implementation of the principle by various actors in the context of country-specific situations, such as Libya, Syria, Sudan and Kenya, among other cases and for example. It has also been argued[by whom?] that commensurate to the responsibility to protect, international law ought also recognize a right for populations to offer militarily organized resistance to protect themselves against genocide, crimes against humanity and war crimes on a massive scale.

Source: <http://www.dailyo.in/politics/rohingya-muslims-india-myanmar-aung-san-su-kyi/story/1/19289.html>

Q.8) Which of the following countries are members of Uniting for Consensus (UfC)

1. Italy
2. Pakistan
3. Argentina
4. Colombia

Select the correct code

- a) 1, 3 and 4

- b) 1, 2 and 4
- c) 1 and 2
- d) All of the above

Q.8) Solution (d)

Uniting for Consensus (UfC) is a movement, nicknamed the Coffee Club, that developed in the 1990s in opposition to the possible expansion of permanent seats in the United Nations Security Council. Under the leadership of Italy, it aims to counter the bids for permanent seats proposed by G4 nations (Brazil, Germany, India, and Japan) and is calling for a consensus before any decision is reached on the form and size of the Security Council.

Read More - <https://www.un.org/press/en/2005/ga10371.doc.htm>

Source: <http://www.asianage.com/opinion/columnists/050917/2nd-class-unsc-seat-is-that-what-we-want.html>

Q.9) Which of the following banks are included in D-SIB or domestic systemically important bank by RBI?

- 1. State Bank of India
- 2. HDFC
- 3. Yes Bank
- 4. ICICI

Select the correct code

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

Q.9) Solution (b)

The RBI had issued the framework for dealing with Domestic Systemically Important Banks (D-SIBs) on July 22, 2014. The D-SIB framework requires the RBI to disclose the names of banks designated as D-SIBs every year in August starting from August 2015.

The framework also requires that D-SIBs may be placed in four buckets depending upon their Systemic Importance Scores (SISs). Based on the bucket in which a D-SIB is placed, an

additional common equity requirement has to be applied to it, as mentioned in the D-SIB framework.

The D-SIB framework specifies a two-step process of identification of D-SIBs. In the first step, the sample of banks to be assessed for systemic importance has to be decided. The additional Common Equity Tier-1 (CET1) requirements applicable to D-SIBs will be applicable from April 1, 2016 in a phased manner and would become fully effective from April 1, 2019. The additional CET1 requirement will be in addition to the capital conservation buffer.

RBI also said that in case a foreign bank having branch presence in India is a Global Systemically Important Bank (G-SIB), it has to maintain additional CET1 capital surcharge in India as applicable to it as a G-SIB, proportionate to its risk weighted assets (RWAs) in India.

India's largest lender SBI and private sector major ICICI Bank was classified as D-SIBs in 2015.

HDFC Bank is added to the list, there will now be three 'too big to fail' financial entities.

Source: <http://www.thehindubusinessline.com/money-and-banking/hdfc-bank-in-too-big-to-fail-list/article9844631.ece>

Q.10) Which of the following is/are correctly matched?

1. Saurashtra – Maharashtra
2. Bundelkhand – Madhya Pradesh
3. Vidarbha – Gujarat

Select the correct code:

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

Q.10) Solution (a)

Vidarbha is the eastern region of the Indian state of Maharashtra, comprising Nagpur Division and Amravati Division.

Saurashtra is a peninsular region of western India, located on the Arabian Sea coast. It covers about a third of Gujarat state, notably 11 districts of Gujarat, including Rajkot District.

Bundelkhand is a geographical and cultural region and also a mountain range in central India. The hilly region is now divided between the states of Uttar Pradesh and Madhya Pradesh, with the larger portion lying in the latter state.

Q.11) Consider the following statements about The Medical Termination of Pregnancy (MTP) Act

1. It does not allow abortions above the gestational age of 24 weeks.
2. It provides that “the length of pregnancy shall not apply” in a decision to abort a foetus diagnosed with “substantial foetal abnormalities” or if it is “alleged by the pregnant woman to have been caused by rape”.

Select the correct statements

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

Q.11) Solution (d)

The above statements hold true for Medical Termination of Pregnancy (Amendment) Bill of 2014

The Act

- The Medical Termination of Pregnancy (MTP) Act in India was amended in 2003 to facilitate better implementation and increase access for women especially in the private health sector. However, unsafe abortions are widely prevalent even 40 years after the Act came into force.
- The current Act does not allow abortions above the gestational age of 20 weeks. However, legal experts have argued that medical science and technology have made the 20-week ceiling redundant and that conclusive determination of foetal abnormality is possible in most cases after the 20th week of gestational age.
- Under the 1971 Act, even pregnant rape victims cannot abort after 20 weeks, compelling them to move court.

2014 draft Amendment bill

- The draft Medical Termination of Pregnancy (Amendment) Bill of 2014 seeks to amend Section 3 of the principle The Medical Termination of Pregnancy Act of 1971 to provide that “the length of pregnancy shall not apply” in a decision to abort a foetus diagnosed with “substantial foetal abnormalities as may be prescribed”.

- Besides increasing the legal limit for abortion from 20 weeks to 24 weeks, the draft Bill allows a woman to take an independent decision in consultation with a registered health-care provider.

Source: <http://www.thehindu.com/news/national/supreme-court-allows-13-year-old-rape-survivor-to-abort-her-31-week-old-foetus/article19629701.ece>

Q.12) Consider the following committees

1. Mudaliar Committee, 1962
2. Shrivastav Committee, 1975
3. Bajaj Committee, 1986

The Committees are concerned with which of the following?

- a) Health
- b) Border Security
- c) Agriculture
- d) Industrial Policy

Q.12) Solution (a)

Mudaliar Committee, 1962

This committee known as the "Health Survey and Planning Committee", headed by Dr. A.L. Mudaliar, was appointed to assess the performance in health sector since the submission of Bhore Committee report. This committee found the conditions in PHCs to be unsatisfactory and suggested that the PHC, already established should be strengthened before new ones are opened. Strengthening of sub divisional and district hospitals was also advised. It was emphasised that a PHC should not be made to cater to more than 40,000 population and that the curative, preventive and promotive services should be all provided at the PHC. The Mudaliar Committee also recommended that an All India Health service should be created to replace the erstwhile Indian Medical service.

Shrivastav Committee, 1975

This committee was set up in 1974 as "Group on Medical Education and Support Manpower" to determine steps needed to

- reorient medical education in accordance with national needs & priorities and
- develop a curriculum for health assistants who were to function as a link between medical officers and MPWs.

It recommended immediate action for:

- Creation of bonds of paraprofessional and semiprofessional health workers from within the community itself.
- Establishment of 3 cadres of health workers namely – multipurpose health workers and health assistants between the community level workers and doctors at PHC.
- Development of a “Refferal Services Complex”
- Establishment of a Medical and Health Education Commission for planning and implementing the reforms needed in health and medical education on the lines of University Grants Commission.

Acceptance of the recommendations of the Shrivastava Committee in 1977 led to the launching of the Rural Health Service.

Bajaj Committee, 1986

An "Expert Committee for Health Manpower Planning, Production and Management" was constituted in 1985 under Dr. J.S. Bajaj, the then professor at AIIMS. Major recommendations are:

- Formulation of National Medical & Health Education Policy.
- Formulation of National Health Manpower Policy.
- Establishment of an Educational Commission for Health Sciences (ECHS) on the lines of UGC.
- Establishment of Health Science Universities in various states and union territories.
- Establishment of health manpower cells at centre and in the states.
- Vocationalisation of education at 10+2 levels as regards health related fields with appropriate incentives, so that good quality paramedical personnel may be available in adequate numbers.
- Carrying out a realistic health manpower survey.

Source: <http://www.thehindu.com/opinion/op-ed/a-case-for-universal-medical-care/article19631736.ece>

Q.13) EEPC India is under the Ministry of

- a) Commerce & Industry
- b) Corporate Affairs
- c) Finance
- d) Home Affairs

Q.13) Solution (a)

EEPC India is the premier trade and investment promotion organization in India. It is sponsored by the Ministry of Commerce & Industry, Government of India and caters to the Indian engineering sector. As an advisory body it actively contributes to the policies of Government of India and acts as an interface between the engineering industry and the Government. Set up in 1955, EEPC India now has a membership base of over 13,000 out of whom 60% are SMEs. EEPC India organizes a large number of promotional activities such as buyer-seller meets (BSM) – both in India and abroad, overseas trade fairs/exhibitions, and India pavilion/information booths in selected overseas exhibitions to demonstrate the capabilities of Indian engineering industry and to provide the overseas buyers with true value as propagated by Brand India. India Engineering Exhibition (INDEE) is EEPC India's own brand and is one of the largest expositions of engineering in the world. This has been happening for the last few decades and is established as the largest and most important showcase for Indian engineering. EEPC India facilitates sourcing from India and boosts the SMEs to raise their standard at par with the international best practices. It also encourages the SMEs to integrate their business to the global value chain. To encourage building global partnerships with India, EEPC India organizes International Engineering Sourcing Show (IESS), the largest display of engineering products and services every year. This is recognized as the only sourcing event in India – showcasing the latest technologies and a preferred meeting place for global buyers & sellers. This show is also important to encourage foreign investments in line with the newly initiated "Make in India" campaign, by Government of India. Extending its regular agenda, EEPC India publishes several reports/studies to make the members aware about the international trends and opportunities in order to enhance their global footprints. Keeping 'Engineering the Future' as the motto, EEPC India serves as the reference point for the Indian engineering industry and the international business community in its efforts towards establishing India as a major engineering hub in the future.

Key Objectives of EEPC India

- To support, protect, maintain, increase and promote the exports of engineering goods;
- To keep in constant communication with Chambers of Commerce and other mercantile and public bodies throughout the world with a view to taking appropriate and necessary measures for maintaining or increasing the exports of engineering goods;
- To advise or represent to government, Local Authorities and public bodies on the policies and other measures;
- Upgradation of technology in order to boost India's engineering exports and establishing synergy between industry and academia;

- To prepare, edit, print, publish, issue, acquire and circulate books, papers, periodicals, gazettes, circulars and other literatures treating or bearing upon industry, trade or commerce, pertaining to engineering goods.

Source: <http://www.thehindu.com/business/eepc-seeks-90-gst-refund-for-exporters/article19631589.ece>

Q.14) Consider the following statements about 'Tibetan Antelope'

1. It is listed in Schedule I of the India's Wildlife (Protection) Act
2. Shahtoosh is woven from the underfur of a Tibetan Antelope
3. It is classified as "near threatened" under the IUCN's red list

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.14) Solution (d)

It is a medium-sized bovid native to the Tibetan plateau. Fewer than 75,000 individuals are left in the wild. In recent years, they have become endangered due to poaching. They are hunted for their soft and warm wool which is usually obtained after death. This wool is known as shahtoosh and is used to weave shawls. At present, international trade in their products is strictly prohibited.

The shahtoosh trade was banned globally in 1975 under the Convention on International Trade in Endangered Species (CITES) to which India is a signatory.

The antelope is listed in Schedule I of the India's Wildlife (Protection) Act, granting it the highest level of protection.

The animal is classified as "near threatened" under the IUCN's red list as its population has dwindled to about 75,000 in recent years.

Q.15) Which of the following statements is/are correct?

1. The torrid zone refers to the area of the earth between the Tropic of Cancer and the Tropic of Capricorn.
2. Norway's Svalbard Islands lie entirely within North Frigid Zone

Select the correct statements

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

Q.15) Solution (c)

Eight modern nations have at least some territory within the North Frigid Zone, while only Antarctica—an unclaimed continent and thus not a nation—lies within the Southern Frigid Zone.

Three nations on the North American continent touch the North Frigid Zone. Canada's northernmost part of the Northwest Territories lies within this region located at 66 degrees, 33 minutes north of the Equator, including Victoria Island, Ellesmere, a large portion of Baffin Island and several other smaller islands. The United States' northernmost area of Alaska, including the Brooks Range of mountains, lies above the Arctic Circle. The coastal city of Barrow, located here, is the northernmost community in the United States. Most of Greenland, a territory of Denmark, lies above the Arctic Circle. (Greenland is covered almost entirely by an ice cap, except for the surrounding rocky coastline.)

The island nation of Iceland in the North Atlantic Ocean has just a tip of its territory, Grimsey Island, situated 41 km north of the main island, touching the line of the Arctic Circle.

Three European nations that make up Scandinavia span partly into the Frigid Zone. Norway's Svalbard Islands lie entirely within this region, as does the northernmost tip of its mainland. Sweden's northernmost region—part of Lapland, an area that includes northern Finland and part of Russia's Kola Peninsula of—extends into the Arctic Circle.

In this area above the Arctic Circle, the sun never sets on some summer nights and never rises on some winter days. The landscape of the Frigid Zone has a general covering of snow, ice and tundra (bare ground permanently frozen at least 10 inches to 3 feet down.) Trees cannot grow here. "Tundra" comes from the Finnish word "tunturia," meaning a barren land.

Russia, the largest nation on Earth, has a long top section within the Arctic Circle that extends from European Russia to Siberia—more Arctic territory than that of any of the other Frigid Zone nations.

The Torrid is also known as the Tropics. The zone is bounded on the north by the Tropic of Cancer and on the south by the Tropic of Capricorn; these latitudes mark the northern and southern extremes in which the sun seasonally passes directly overhead. This happens annually, but in the region between, the sun passes overhead twice a year.

In the Northern Hemisphere, in the sun's apparent northward migration after the March equinox, it passes overhead once, then after the June solstice, at which time it reaches the Tropic of Cancer, it passes over again on its apparent southward journey. After the September equinox the sun passes into the Southern Hemisphere. It then passes similarly over the southern tropical regions until it reaches the Tropic of Capricorn at the December solstice, and back again as it returns northwards to the Equator.

Q.16) Consider the following statements about Bahadur Shah Zafar

1. He presided over a Mughal Empire that only ruled the city Delhi
2. He was the first writer to use Urdu as the medium of poetic expression

Select the correct statements

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

Q.6) Solution (a)

Mirza Abu Zafar Sirajuddin Muhammad Bahadur Shah Zafar (24 October 1775 – 7 November 1862) was the last Mughal emperor. He was the second son of and became the successor to his father, Akbar II, upon his death on 28 September 1837. He was a nominal Emperor, as the Mughal Empire existed in name only and his authority was limited only to the city of Delhi (Shahjahanbad). Following his involvement in the Indian Rebellion of 1857, the British exiled him to Rangoon in British-controlled Burma, after convicting him on conspiracy charges in a kangaroo court.

Amir Khusrow was the first writer to use Urdu as the medium of poetic expression.

Source: <http://timesofindia.indiatimes.com/india/pm-modi-visits-mughal-ruler-bahadur-shah-zafars-grave-in-yangon/articleshow/60405523.cms>

Q.17) Tapan Ray panel was appointed for which of the following?

- a) Black Money
- b) Company Law
- c) Intellectual Property
- d) Agricultural Research

Q.17) Solution (b)

To make it easier for companies to do business, a panel constituted to suggest amendments in the Companies Act, 2013. The panel, headed by Tapan Ray.

MAJOR CHANGES SUGGESTED IN COMPANIES ACT

- A firm to be called associate company only when the parent firm owns 20 per cent of voting power in it
- Insider trading and forward dealing provisions to be removed from the Act as Sebi regulations already exist
- Institute of Chartered Accountants of India's regulatory powers to be taken away; National Financial Reporting Authority would be formed
- Independent directors should not have any pecuniary relationship - where it is getting material benefits - with the company
- Small frauds of less than Rs 10 lakh not to be considered under harsh provisions
- Private placement process to be simplified, doing away with separate offer letter, making valuation details public
- Incorporation process to be made easier, allowing greater flexibility to companies
- Self-declarations to replace affidavits from subscribers to memorandum and first directors
- Managerial remuneration to need only shareholders' approval. No need for government approval

Q.18) Gatka, a traditional martial art associated with

- a) Lingayatism
- b) Bahá'í
- c) Sanamahism
- d) None of the above

Q.18) Solution (d)

'Gatka', a traditional martial art form, that is historically associated with the Sikh gurus and is popular among the masses, is now being recognised as a sport nationwide. The form which was earlier confined to gurudwaras, nagar kirtans and akharas, finds presence in the sports category after the formation of Gatka Federation of India (GFI) in 2008 and is now played by trained Gatka players at the national level.

In actuality, the art is not unique to any particular ethno-cultural group or religion but has been the traditional form of combat throughout north India and Pakistan for centuries. Attacks and counterattacks vary from one community to another but the basic techniques are the same. This article will primarily use the extended definition of gatka, making it synonymous with shastara-vidiya.

Source: <http://www.thehindu.com/entertainment/dance/kalaripayattu-meets-gatka/article19174450.ece>

Q.19) Which of these countries take part in the Military exercise Malabar?

1. India
2. United States of America
3. Japan

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.19) Solution (d)

The Malabar drills, which began in 1992 as a bilateral naval exercise between India and the U.S., has since grown in scope and complexity, acquiring considerable heft in recent times. In 2015, it was expanded into a trilateral format with the inclusion of Japan.

Australia is keen on joining the Malabar trilateral naval exercises among India, Japan and the U.S., and has requested observer status at the upcoming edition.

Japan and the U.S. are keen on expanding the games to include Australia with officials from both countries specifically stating so on various occasions. However, India has been reluctant to antagonise China.

Australia had been a part of the exercises in 2007. But a sharp response from China, which saw the joint exercises as a coalition against it, put an end to the quadrilateral format.

Source: <http://www.livemint.com/Politics/7RJdW3Yxt93lqcSMpJhulM/India-Japan-to-step-up-defence-ties-deepen-Malabar-exercis.html>

Q.20) Kimberly Process Certificate Scheme (KPCS) is concerned with

- a) Diamonds
- b) Intellectual Property
- c) Renewable Energy
- d) Immigration

Q.20) Solution (a)

The Kimberley Process Certification Scheme (KPCS) is the process established in 2003 to prevent "conflict diamonds" from entering the mainstream rough diamond market by United Nations General Assembly Resolution 55/56 following recommendations in the Fowler Report. The process was set up "to ensure that diamond purchases were not financing violence by rebel movements and their allies seeking to undermine legitimate governments.

Source: <http://www.businesstoday.in/opinion/interviews/can-diamond-change-the-future-of-icex/story/259377.html>

Q.21) Consider the following statements about Labeo genus of fishes

1. The fishes in the Labeo genus are widely distributed in the inland waterbodies of India, Pakistan, Nepal, and Bangladesh
2. Rohu, one of the species of Labeo genus is one of the major carps of India

Select the correct statements

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

Q.21) Solution (c)

The fishes in the Labeo genus are widely distributed in the inland waterbodies of India, Pakistan, Nepal, Bangladesh, Sri Lanka, Burma, Malaysia, tropical Africa and Syria. They are medium- sized elongate fishes with rounded abdomen, swollen snout, finged lips and a straight lateral line.

As many as 31 species of Labeo are reported to be present in India, with L.rohita, commonly known as Rohu, extensively used in aquaculture.

News:

New species of edible fish found in Pampa river. The new species that belongs to the Labeo genus is only the second one to be reported from Kerala. Named Labeo filiferus, it has been collected from the stretch of the Pampa running through Edakadathy in Pathanamthitta. The only other Labeo species reported from Kerala is L.dussumieri.

L.filiferus was found to be distinct from the other species of the genus in its features including black coloured body and fins, prominent barbels, smaller eyes, longer snout and elongated dorsal and anal fins. The eyes are brilliantly coloured with orange tinge. The specimens were 20 to 40 cm long and weighed four to five kg.

The name filiferus was taken from Latin (filum in latin means 'thread' and fero means 'to bear') and refers to the very long dorsal fin of the species.

Rohu - <http://www.iucnredlist.org/details/full/166619/0>

Source: <http://www.thehindu.com/news/national/kerala/new-species-of-edible-fish-found-in-pampa-river/article19637488.ece>

Q.22) Which of the following is/are types of 'Internet Fraud'

1. Catfishing
2. Cramming
3. Click Farm

Select the correct code:

- a) 1 and 2
- b) Only 1
- c) 2 and 3
- d) All of the above

Q.22) Solution (d)

A click farm is a form of click fraud, where a large group of low-paid workers are hired to click on paid advertising links for the click fraudster (click farm master or click farmer). The workers click the links, surf the target website for a period of time, and possibly sign up for newsletters prior to clicking another link. For many of these workers, clicking on enough ads per day may increase their revenue substantially and may also be an alternative to other types of work. It is extremely difficult for an automated filter to detect this simulated traffic as fake because the visitor behavior appears exactly the same as that of an actual legitimate visitor.

Cramming is a form of fraud in which small charges are added to a bill by a third party without the subscriber's consent or disclosure. These may be disguised as a tax, some other common fee or a bogus service, and may be several dollars or even just a few cents. The crammer's intent is that the subscriber will overlook and ultimately pay these small charges.

Catfishing is a type of deceptive activity involving a person creating a sock puppet social networking presence for nefarious purposes.

The term was originated from a TV show called "Catfish" telecasted on Vh1.

Source: <http://www.livemint.com/Technology/GS8qtvZPnk9qKlFctv6TeJ/New-malware-steals-users-money-through-mobile-phones-Kaspe.html>

Q.23) Which of the following had published "Systematic Criticism of Moderate Politics?"

- a) Aurobindo Ghosh
- b) R.C. Dutt
- c) Syed Ahmad Khan
- d) Bipin Chandra Pal

Q.23) Solution (a)

Aurobindo Ghosh launched a systematic criticism of moderate politics through a series of articles entitled. 'New Lamps for the old' published in Indu Prakash of Bombay.

Aurobindo Ghosh (1872-1950) was an ardent nationalist who later became a saint, was educated in England. His views were readily accepted by Lala Lajpat Rai of Punjab and Bal Gangadhar Tilak of Maharashtra and led to the formation within the ambit of Congress, on an extremist school. He propagated his ideas through journals like the Bande Mataram and Karmayogin. He passed away in 1950.

Source: <http://www.dnaindia.com/india/video-the-unsung-heroes-leaders-who-played-an-important-role-in-india-s-freedom-struggle-2530464>

Q.24) Which of the following statements is/are correct?

1. Blue carbon is the carbon stored in coastal and marine ecosystems.
2. Blue Carbon Initiative is started by United Nations Environment Programme (UNEP)

Select the correct code:

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

Q.24) Solution (a)

Blue carbon is the carbon stored in coastal and marine ecosystems. The Blue Carbon Initiative currently focuses on carbon in coastal ecosystems - mangroves, tidal marshes and seagrasses. These ecosystems sequester and store large quantities of blue carbon in both the plants and the sediment below. For example, over 95% of the carbon in seagrass meadows is stored in the soils*.

Global Distribution of Blue Carbon Ecosystems



The Blue Carbon Initiative is a global program working to mitigate climate change through the restoration and sustainable use of coastal and marine ecosystems. The Initiative currently focuses on mangroves, tidal marshes and seagrasses. The Blue Carbon Initiative brings together governments, research institutions, non-governmental organizations and communities from around the world. The Initiative is coordinated by Conservation International (CI), the International Union for Conservation of Nature (IUCN), and the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific, and Cultural Organization (IOC-UNESCO).

The Blue Carbon Initiative works to

- Develop management approaches, financial incentives and policy mechanisms for ensuring the conservation, restoration and sustainable use of coastal blue carbon ecosystems;
- Engage local, national, and international governments in order to promote policies that support coastal blue carbon conservation, management and financing;
- Develop comprehensive methods for assessing blue carbon stocks and emissions;
- Implement projects around the world that demonstrate the feasibility of blue carbon accounting, management and incentive agreements; and
- Support scientific research into the role of coastal blue carbon ecosystems for climate change mitigation.

To achieve these goals, the Blue Carbon Initiative has formed Science and Policy working groups. The International Blue Carbon Scientific Working Group identifies priority research areas, synthesizes current and emerging blue carbon research and provides the robust scientific basis for coastal carbon conservation, management and assessment. The International Blue Carbon Policy Working Group supports efforts to integrate blue carbon in existing international policy frameworks such as the United Nations Framework Convention on Climate Change (UNFCCC), and the Convention on Biological Diversity (CBD) among others. Members of both working groups routinely collaborate to ensure that qualified science forms the basis of sound policy.

Each Working Group convenes several times a year. At each Working Group meeting, the Initiative brings together international blue carbon science and policy experts to exchange knowledge and build local capacity.

The Blue Carbon Initiative focuses on mangroves, salt marshes and seagrasses, which are found on every continent except Antarctica. These coastal ecosystems cover between 13.8 and 15.2 million hectares (Mha), 2.2 and 40 Mha, and 17.7 and 60 Mha, respectively. Combined, these ecosystems cover approximately 49 Mha.

WHY IS IT IMPORTANT?

- When protected or restored, blue carbon ecosystems sequester and store carbon.
- When degraded or destroyed, these ecosystems emit the carbon they have stored for centuries into the atmosphere and oceans and become sources of greenhouse gases. Experts estimate that as much as 1.02 billion tons of carbon dioxide are being released annually from degraded coastal ecosystems, which is equivalent to 19% of emissions from tropical deforestation globally.
- Mangroves, tidal marshes and seagrasses are critical along the world's coasts, supporting coastal water quality, healthy fisheries, and coastal protection against floods and storms. For example, mangroves are estimated to be worth at least US\$1.6 billion each year in ecosystem services that support coastal livelihoods and human populations around the world.

Q.25) Ethanethiol is intentionally added to butane and propane to impart an easily noticed smell to these normally odourless fuels that pose the threat of fire, explosion, and asphyxiation. It is a compound of

- a) Sulphur
- b) Chlorine
- c) Bromine
- d) Phosphorus

Q.25) Solution (a)

Ethanethiol, commonly known as ethyl mercaptan, is a clear liquid with a distinct odor. It is an organosulfur compound with the formula $\text{CH}_3\text{CH}_2\text{SH}$.

Abbreviated EtSH, it consists of an ethyl group (Et), CH_3CH_2 , attached to a thiol group, SH. Its structure parallels that of ethanol, but with sulfur in place of oxygen. The odor of EtSH is infamous. Ethanethiol is more volatile than ethanol due to a diminished ability to engage in hydrogen bonding. Ethanethiol is toxic. It occurs naturally as a minor component of petroleum, and may be added to otherwise odorless gaseous products such as liquefied petroleum gas (LPG) to help warn of gas leaks. At these concentrations, ethanethiol is not harmful.

Q.26) Which of the following are examples of Endorheic basin?

1. Aral Sea
2. Caspian Sea

3. Pangong Tso
4. Lake Urmia

Select the correct code:

- a) 1, 2 and 3
- b) 2, 3 and 4
- c) 1, 2 and 3
- d) All of the above

Q.26) Solution (d)

An endorheic basin is a closed drainage that retains water and does not allow for overflow to other external bodies such as the rivers and or oceans. The endorheic basin may form either permanent or seasonal lakes or swamps that equilibrate only through evaporation. The basin is also commonly referred to as internal drainage system or a closed basin. However, under normal circumstances, the water that accumulates in the drainage basin flows out through rivers or streams or by underground diffusion through permeable rocks and finally ends up in the ocean. This scenario is not common in the endorheic Basin since water that flows into the basin cannot flow out and may only leave the drainage through evaporation or seep into the ground.

The word endorheic is an Ancient Greek word which translates to "to flow within." An Endorheic Basin can either be small or massive depending on the effect of climate and the rate of water removal. Endorheic Basin does not have enough inflow and depends mainly on rainfall. It also has no overflow. Thus any loss of water either by evaporation or seeping leads to immediate shrinking of the lake. Most of the Endorheic lakes such as Lake Chad and Lake Urmia have been reduced to smaller remnants of their former sizes while other lakes such as Tulare and Fucine are completely gone. The basins which have disappeared have left behind salt pans and remnant saline lakes.

Endorheic lakes do not flow into an ocean or a sea like most of the lakes whose waters find their ways to the ocean or sea through a network of rivers or streams. Endorheic lakes are located in a watershed where the topography does not allow their drainage into the oceans. These watersheds are often referred to as terminal lakes or sink lakes. Endorheic lakes are located in the interior of the land mass far from oceans or seas and also in areas that experience low rainfall. When the waters from Endorheic lakes evaporate a large concentration of minerals and other inflow erosion products are left behind. The mineral deposits and erosion material left behind may cause the lake to become saline over time. Because of lack of an outlet, Endorheic lakes are more sensitive to environmental pollutants

than lakes which have access to the oceans or sea. Endorheic lakes can either be permanent or seasonal and can form in endorheic basin.

Endorheic basins can occur in any climate but are most common in deserts with low rainfall or stream flow. In areas of high rainfall, erosion is likely to curve the drainage channel or cause water in the terminal basin to rise thereby finding an outlet into the sea or ocean. Endorheic regions are far inland places whose boundaries are defined by mountains and other geographical features which block their access to other water bodies. Australia has the highest concentration of endorheic regions followed by North America at 21% and 5% concentration respectively. About 18% of the earth drains into Endorheic lakes. Some of the notable Endorheic basins and lakes include Lake Vanda, Lake Bonney, and Lake Hoare in Antarctica, the Caspian Sea, Lake Urmia, Lop Lake, and Sistan Basin in Asia, Lake Eyre Basin, and Lake George in Australia, and Chad Basin, Lake Turkana, Lake Chilwa, and Lake Rukwa in Africa.

Read More - http://www.unep.or.jp/ietc/publications/short_series/lakereservoirs-2/10.asp

Q.27) 'AngioChip' which was in news recently is related to

- a) Increasing shelf life of fruits exported to western countries
- b) Predictive Maintenance for Metal Casting Furnace
- c) IoT Solutions for Manufacturing Sector in India
- d) None of the above

Q.27) Solution (d)

The AngioChip is a tiny patch of heart tissue with its own blood vessels and heart cells beating with a regular rhythm.

Scientists have developed an injectable tissue bandage smaller than a postage stamp that can repair damaged hearts.

Repairing heart tissue destroyed by a heart attack or medical condition with regenerative cells usually requires invasive open-heart surgery.

Source: <http://www.thehindu.com/todays-paper/tp-national/an-injectable-patch-to-repair-hearts/article19499786.ece>

Q.28) Consider the following statements about 'Versius'

1. It is the world's smallest surgical robot
2. It mimics the human arm

Select the correct statements

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

Q.28) Solution (c)

British scientists have developed the world's smallest surgical robot which could transform everyday operations for tens of thousands of patients.

The robot, called Versius, mimics the human arm and can be used to carry out a wide range of laparoscopic procedures – including hernia repairs, colorectal operations, and prostate and ear, nose and throat surgery – in which a series of small incisions are made to circumvent the need for traditional open surgery. This reduces complications and pain after surgery and speeds up recovery times for patients.

The robot is controlled by a surgeon at a console guided by a 3D screen in the operating theatre.

Although surgical robots already exist, the new creation is much easier to use, takes up about a third of the space of current machines and will be no more expensive than non-robotic keyhole surgery.

Source: <http://www.dnaindia.com/technology/report-world-s-smallest-surgical-robot-created-2536035>

Q.29) Consider the following statements

1. United Nations Office for South-South Cooperation (UNOSSC) was established to promote, coordinate and support South-South and triangular cooperation globally and within the United Nations system.
2. Triangular cooperation is collaboration in which traditional donor countries and multilateral organizations facilitate South-South initiatives through the provision of funding, training, management and technological systems as well as other forms of support.

Select the correct statements

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

Q.29) Solution (c)

The United Nations Office for South-South Cooperation (UNOSSC) was established to promote, coordinate and support South-South and triangular cooperation globally and within the United Nations system.

UNOSSC, hosted by UNDP since 1974, was established by the UN General Assembly with a mandate to advocate for and coordinate South-South and triangular cooperation on a global and UN system-wide basis. UNOSSC receives policy directives and guidance from the General Assembly and through its subsidiary body, the High-level Committee on South-South Cooperation. UNOSSC submits its strategic planning frameworks to the UNDP, UNFPA and UNOPS Executive Board for approval and funding. The Director reports to the UNDP Administrator and has also been appointed Envoy of the Secretary-General on South-South Cooperation.

The United Nations Office for South-South Cooperation:

- mainstreams South-South cooperation across the UN system and throughout the international development community by leveraging its global reach as well as its policy and institutional capacities to assist UN agencies and developing countries in strengthening their South-South cooperation capacities. It works to support countries' efforts to manage, design and implement South-South cooperation policies and initiatives through the identification, sharing and transfer of successful Southern-generated development solutions. It also advocates for support to South-South initiatives, including through its organization of the UN Day for South-South Cooperation;
- engages a wide range of partners, including Member States, UN entities, multilateral bodies and private-sector and civil society organizations in order to provide the most efficient, effective and comprehensive support for South-South cooperation;
- innovates by continually seeking, showcasing and transferring forward-thinking Southern development solutions to development partners to meet the critical development challenges of today;
- enables countries of the South – emerging, middle income and least developed – to work together to use their wealth of resources, tangible and intangible, in support of national, regional and global development efforts;

- serves as the secretariat to the High-level Committee (HLC) on South-South Cooperation, a subsidiary body of the General Assembly, which provides policy directives and guidance and reviews worldwide progress in South-South cooperation. In this context, it monitors trends in South South cooperation among UN agencies as well as globally, preparing reports for various intergovernmental bodies, including the report of the Secretary-General on the state of South-South cooperation; and
- manages the UN Fund for South-South Cooperation and the Pérez-Guerrero Trust Fund for Economic and Technical Cooperation among Developing Countries.

Background

- In 1974, the United Nations General Assembly, in its resolution 3251 (XXIX), endorsed “the establishment of a special unit within the United Nations Development Programme to promote technical co-operation among developing countries”. With the endorsement of the Buenos Aires Plan of Action (BAPA) for Promoting and Implementing Technical Cooperation among Developing Countries by the General Assembly in 1978 (resolution 33/134), the Special Unit was strengthened in order to fulfil its primary mandate, set forth in BAPA. Its name was then changed to the United Nations Office for South-South Cooperation (UNOSSC) by High-level Committee decision 17/1 of 2 April 2012 and endorsed by the General Assembly in its resolution 67/39.

South-South cooperation is a broad framework of collaboration among countries of the South in the political, economic, social, cultural, environmental and technical domains. Involving two or more developing countries, it can take place on a bilateral, regional, intraregional or interregional basis. Developing countries share knowledge, skills, expertise and resources to meet their development goals through concerted efforts. Recent developments in South-South cooperation have taken the form of increased volume of South-South trade, South-South flows of foreign direct investment, movements towards regional integration, technology transfers, sharing of solutions and experts, and other forms of exchanges.

Triangular cooperation is collaboration in which traditional donor countries and multilateral organizations facilitate South-South initiatives through the provision of funding, training, management and technological systems as well as other forms of support.

Source: <http://timesofindia.indiatimes.com/india/india-unossc-launch-partnership-fund-to-promote-sustainable-development/articleshow/59065236.cms>

Q.30) Abyei is located in

- a) Somalia
- b) Along Sudan and South Sudan border
- c) Syria
- d) Rakhine State of Myanmar

Q.30) Solution (b)

Abyei Area in Sudan accorded "special administrative status" by the 2004 Protocol on the Resolution of the Abyei Conflict (Abyei Protocol) in the Comprehensive Peace Agreement (CPA) that ended the Second Sudanese Civil War. The capital of Abyei Area is Abyei Town. Under the terms of the Abyei Protocol, the Abyei Area was declared, on an interim basis, to be simultaneously part of the states of South Kurdufan and Northern Bahr el Ghazal.

Q.31) Consider the following statements about Crested Black Macaque

1. It is listed as 'Critically Endangered' by the IUCN
2. It is native Indian Subcontinent
3. It is a frugivorous

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.31) Solution (c)

This species occurs on northeastern Sulawesi, Indonesia and the adjacent islands of Pulau Manadotua and Pulau Talise. It was historically found on Pulau Lembeh as well but has probably been extirpated from there. On Sulawesi it is found on the northern arm east of the Onggak Dumoga River and Mount Padang to the tip of the peninsula (Groves 2001). There is a sizeable introduced population on Pulau Bacan in the Maluku Islands (Indonesia).

The Celebes crested macaque is frugivorous, with 70% of its diet consisting of fruits. It also consumes leaves, buds, seeds, fungus, birds and bird eggs, insects (such as caterpillars), and the occasional small lizard or frog.

There is extensive habitat loss within its range. Hunting for bush meat is a major threat, so although the habitat appears to be intact in many places much of it is currently unoccupied.

Some animals are also caught for the live animal trade. Extensive illegal "small scale" open area mining for gold, using mercury, within the parks is a regional threat. Shifting cultivation by local communities is an increasing threat. This is probably the most threatened primate species on Sulawesi.



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

Q.32) Consider the following statements

1. The Sundarbans mangrove forest lies on the delta of the Ganges, Brahmaputra and Meghna rivers on the Bay of Bengal
2. Sundarbans National Park is a UNESCO world heritage site

Select the correct statements

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

Q.32) Solution (c)

The Sundarbans mangrove forest, one of the largest such forests in the world (140,000 ha), lies on the delta of the Ganges, Brahmaputra and Meghna rivers on the Bay of Bengal. It is adjacent to the border of India's Sundarbans World Heritage site inscribed in 1987. The site is intersected by a complex network of tidal waterways, mudflats and small islands of salt-tolerant mangrove forests, and presents an excellent example of ongoing ecological

processes. The area is known for its wide range of fauna, including 260 bird species, the Bengal tiger and other threatened species such as the estuarine crocodile and the Indian python.

The Sundarban National Park is a National Park, Tiger Reserve, and a Biosphere Reserve in West Bengal, India. It is part of the Sundarbans on the Ganges Delta, and adjacent to the Sundarban Reserve Forest in Bangladesh. The delta is densely covered by mangrove forests, and is one of the largest reserves for the Bengal tiger. It is also home to a variety of bird, reptile and invertebrate species, including the salt-water crocodile. The present Sundarban National Park was declared as the core area of Sundarban Tiger Reserve in 1973 and a wildlife sanctuary in 1977. On 4 May 1984 it was declared a National Park. It is a UNESCO world heritage site inscribed in 1987. It is considered as a World Network of Biosphere Reserve (Man and Biosphere Reserve) in 2001.

Source: <http://www.thehindu.com/todays-paper/tp-national/a-fragile-ark-that-shelters-2626-creatures/article19673678.ece>

Q.33) Consider the following statements about Nathu La

1. It connects the Indian state of Sikkim to Tibet Autonomous Region in China
2. It has been closed for trade since Indo-China 1962 conflict

Select the correct statements

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

Q.33) Solution (a)

Nathula located at the Indo China border at an altitude of 14,100 feet asl is a favorite hotspot place of visit for visitors coming to Sikkim. It is 56 km East of Gangtok and connects the Indian state of Sikkim to Tibet Autonomous Region in China. Nathu means "listening ears" and La means "pass" in Tibetan.

It is one of the highest motorable roads and is covered with rich alpine flora and fauna. Special permits are required to visit this site and excursions are organized by registered tour operators only. The Nathu La Pass was re-opened for border trade after a gap of 44 years in 2006.

It is guarded on both sides by the Chinese and Indian soldiers. At present domestic tourists are given permit to visit Nathu La 4 days a week (Wednesday, Thursday, Saturday & Sunday) and the number of vehicles are restricted to visit Nathula each day. Visitors need special permits to visit this high altitude pass.

During the 1962 Sino-Indian War, Nathu La witnessed skirmishes between soldiers of the two countries. Shortly thereafter, the passage was sealed and remained closed for more than four decades. Finally, after a decade of talks, Nathu La was opened on 6 July 2006.

Source: <http://indianexpress.com/article/explained/50-years-before-doklam-there-was-nathu-la-recalling-a-very-different-standoff-4840703/>

Q.34) Article 27 of Constitution of India deals with

- a) Freedom as to payment of taxes for promotion of any particular religion
- b) Freedom of conscience and free profession, practice and propagation of religion
- c) Freedom to manage religious affairs
- d) Freedom as to attendance at religious instruction or religious worship in certain educational institutions

Q.34) Solution (a)

Article 27 of Constitution of India deals with Freedom as to payment of taxes for promotion of any particular religion.

- No person shall be compelled to pay any taxes, the proceeds of which are specifically appropriated in payment of expenses for the promotion or maintenance of any particular religion or religious denomination.

Article 25 of Constitution of India deals with Freedom of conscience and free profession, practice and propagation of religion.

Article 28 of Constitution of India deals with Freedom as to attendance at religious instruction or religious worship in certain educational institutions.

1. No religious instruction shall be provided in any educational institution wholly maintained out of State funds.
2. Nothing in clause (1) shall apply to an educational institution which is administered by the State but has been established under any endowment or trust which requires that religious instruction shall be imparted in such institution.

3. No person attending any educational institution recognised by the State or receiving aid out of State funds shall be required to take part in any religious instruction that may be imparted in such institution or to attend any religious worship that may be conducted in such institution or in any premises attached thereto unless such person or, if such person is a minor, his guardian has given his consent thereto.

Article 26 of Constitution of India deals with Freedom to manage religious affairs.

Source: <http://indianexpress.com/article/opinion/columns/religion-faith-constitution-secular-india-supreme-court-articles-of-faith-2-4840710/>

Q.35) Catalonia is one of the richest and most highly industrialised regions of

- a) Italy
- b) Spain
- c) Switzerland
- d) Germany

Q.35) Solution (b)

With a distinct history stretching back to the early middle ages, many Catalans think of themselves as a separate nation from the rest of Spain.



A roughly triangular region in Spain's far north-east corner, Catalonia is separated by the Pyrenean mountains from southern France, with which it has close historical ties.

It is bordered by France and Andorra to the north, the Mediterranean Sea to the east, and the Spanish autonomous communities of Aragon to the west and Valencia to the south.

History

- The area first emerged as a distinct entity with the rise of the County of Barcelona to pre-eminence in the 11th century. In the 12th century, the county was brought

under the same royal rule as the neighbouring kingdom of Aragon, going on to become a major medieval sea power.

- Catalonia has been part of Spain since its genesis in the 15th century, when King Ferdinand of Aragon and Queen Isabella of Castile married and united their realms.
- Initially retaining its own institutions, the region was ever more tightly integrated into the Spanish state, until the 19th century ushered in a renewed sense of Catalan identity, which flowed into a campaign for political autonomy and even separatism. The period also saw an effort to revive Catalan, long in decline by then, as a language of literature.
- When Spain became a republic in 1931, Catalonia was soon given broad autonomy. During the Spanish Civil War, Catalonia was a key Republican stronghold, and the fall of Barcelona to Gen Francisco Franco's right-wing forces in 1939 marked the beginning of the end of Spanish resistance to him.
- Under Franco's ultra-conservative rule, autonomy was revoked, Catalan nationalism repressed and use of the Catalan language restricted.

Q.36) A chemical component that is found in all viruses is:

- a) Protein
- b) DNA
- c) RNA
- d) Glycoproteins

Q.36) Solution (a)

A viral protein is both a component and a product of a virus.

All viruses contain the following two components:

1) a nucleic acid genome and 2) a protein capsid that covers the genome. Together this is called the nucleocapsid. In addition, many animal viruses contain a 3) lipid envelope. The entire intact virus is called the virion. The structure and composition of these components can vary widely.

Viral Genomes: While the genomes of all known cells are comprised of double stranded DNA, the genomes of viruses can be comprised of single or double stranded DNA or RNA.

DNA:

- Double Stranded - linear or circular
- Single Stranded - linear or circular

- Other Structures - gapped circles

RNA: Double Stranded – linear

Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=170725>

Q.37) Consider the following statements about Northern river terrapin

1. It is native to India and Bangladesh
2. It is listed in CITES Appendix II
3. They are found in both freshwater and brackish water habitats

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.37) Solution (c)

The northern river terrapin (*Batagur baska*) is a species of riverine turtle native to Southeast Asia. It is classified Critically Endangered by the IUCN and considered extinct in much of its former range.

Native:

Bangladesh; Cambodia; India; Indonesia; Malaysia

Regionally extinct:

Myanmar; Singapore; Thailand; Viet Nam

CITES I listing

CITES Appendix I

- Appendix I, about 1200 species, are species that are threatened with extinction and are or may be affected by trade.
- Commercial trade in wild-caught specimens of these species is illegal (permitted only in exceptional licensed circumstances).
- Captive-bred animals or cultivated plants of Appendix I species are considered Appendix II specimens, with concomitant requirements (In addition, Article VII of CITES states that specimens of animals listed in Appendix I that are bred in captivity

for commercial purposes are treated as Appendix II. The same applies for specimens of Appendix I plants artificially propagated for commercial purposes.).

- The Scientific Authority of the exporting country must make a non-detriment finding, assuring that export of the individuals will not adversely affect the wild population.
- Any trade in these species requires export and import permits. The Management Authority of the exporting state is expected to check that an import permit has been secured and that the importing state is able to care for the specimen adequately.

The species prefers freshwater habitats and moves to brackish river mouths or estuaries in the breeding season (December–March), returning after laying their eggs.

Source: <http://www.thehindu.com/todays-paper/tp-national/a-fragile-ark-that-shelters-2626-creatures/article19673678.ece>



Q.38) Consider the following statements

1. The Far Eastern Federal District of Russia has land borders with China and North Korea
2. Lake Baikal is the largest freshwater lake by volume in the world located in Siberia

Select the correct statements

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

Q.38) Solution (c)

The Russian Far East is the Russian part of the Far East, i.e. the extreme east parts of Russia, between Lake Baikal in Eastern Siberia and the Pacific Ocean. The Far Eastern Federal District, which covers this area, borders with the Siberian Federal District to the west.

The Far Eastern Federal District is the largest of the eight federal districts of Russia but the least populated. The entire federal district lies within the easternmost part of Asia and covers the territory of the Russian Far East. The Far Eastern Federal District has land borders with the People's Republic of China and North Korea to the south west and maritime borders with Japan and the United States. Although traditionally considered part of Siberia, the Russian Far East is categorized separately from Siberia in Russian regional schemes (and previously during the Soviet era when it was called the Soviet Far East).

Lake Baikal is a rift lake in Russia, located in southern Siberia, between Irkutsk Oblast to the northwest and the Buryat Republic to the southeast. Lake Baikal is the largest freshwater lake by volume in the world, containing 22–23% of the world's fresh surface water.

The region to the east of Lake Baikal is referred to as Transbaikalia, and the loosely defined region of the lake is sometimes known as Baikalia.

Transbaikal is a mountainous region to the east of or "beyond" (trans-) Lake Baikal in Russia.

The steppe and wetland landscapes of Dauria are protected by the Daurian Nature Reserve, which forms part of a World Heritage Site named "The Landscapes of Dauria".

Source: <http://economictimes.indiatimes.com/news/defence/chennai-vladivostok-sea-route-to-make-it-near-east/articleshow/60486508.cms>

Q.39) Tokyo Convention 1963 was in news recently, concerning

- a) No-Fly List
- b) Rohingya Refugees
- c) Diplomatic immunity
- d) Sedimentary basins

Q.39) 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.

The revised CAR deals with unruly behavior of passenger on-board aircrafts. Unruly behavior of passengers at airport premises will be dealt with by relevant security agencies under applicable penal provisions. The revised CAR will be applicable for all Indian operators engaged in scheduled and non-scheduled air transport services, both domestic and international carriage of passengers. The CAR would also be applicable to foreign carriers subject to compliance of Tokyo Convention 1963.

Source: http://www.business-standard.com/article/news-cm/government-unveils-rules-to-tackle-on-board-disruptive-and-unruly-behaviour-by-passengers-paves-way-for-no-fly-list-117091100115_1.html

Q.40) Which of the following Indian States borders Rakhine State of Myanmar?

- a) Mizoram
- b) Nagaland
- c) Manipur
- d) None of the above

Q.40) Solution (d)

India does not share border with Rakhine state of Myanmar



Q.41) Consider the following statements

1. Karnataka is the first state to roll out an Electric Vehicle and Energy Storage Policy
2. FAME India scheme is part of the National Electric Mobility Mission Plan (NEMMP)

Select the correct statements

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

Q.41) Solution (c)

Karnataka is the first state to roll out an Electric Vehicle and Energy Storage Policy that looks not only at boosting sales of EVs, but also setting up charging infrastructure and special manufacturing zones.

The state estimates that it will be able to create employment for 55,000 individuals over the next few years through the EV industry

One of the top mandates for Karnataka's policy is to set up EV manufacturing zones along with facilities for testing that can be used even by start-ups.

With an aim to promote eco-friendly vehicles, the government had launched the FAME India scheme in 2015 offering incentives on electric and hybrid vehicles of up to Rs 29,000 for bikes and Rs 1.38 lakh for cars.

FAME India is part of the National Electric Mobility Mission Plan (NEMMP). It is being administered by the Heavy Industries Ministry.

Source: http://www.business-standard.com/article/economy-policy/karnataka-wants-to-become-the-electric-vehicle-capital-of-india-117091301226_1.html

Q.42) SHAKTI Scheme is concerned with

- a) Coal Allocation
- b) Breast feeding
- c) Micro loans
- d) Maternity benefit

Q.42) Solution (a)

Shakti or the Scheme to Harness and Allocate Koyla (Coal) Transparently in India, will give long-term contracts to power companies.

Power to All

What is Shakti?

Scheme to Harness & Allocate Koyla (Coal) Transparently in India



It will give long-term contracts to power cos

Was passed by Cabinet in June

Would be held for first time this week

Mock auctions completed last Thursday & Friday

Source: <http://economictimes.indiatimes.com/industry/energy/power/power-producers-to-reduce-power-tariff-by-4-paise-under-shakti/articleshow/60496534.cms>

Q.43) Consider the following statements about AISHE

1. It covers all the Institutions in the country engaged in imparting of higher education
2. It is a Microsoft initiative to give impetus to the National Mission of Education through ICT (NMEICT) of MHRD

Select the correct statements

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

Q.43) Solution (a)

To portray the status of higher education in the country, Ministry of Human Resource Development has endeavoured to conduct an annual web-based All India Survey on Higher

Education (AISHE) since 2010-11. The survey covers all the Institutions in the country engaged in imparting of higher education. Data is being collected on several parameters such as teachers, student enrolment, programmes, examination results, education finance, and infrastructure. Indicators of educational development such as Institution Density, Gross Enrolment Ratio, Pupil-teacher ratio, Gender Parity Index, Per Student Expenditure will also be calculated from the data collected through AISHE. These are useful in making informed policy decisions and research for development of education sector.

Read More - <http://aishe.nic.in/aishe/viewDocument?documentId=6>

Source: <http://www.thehindu.com/todays-paper/tp-national/all-set-for-nirf-ranking-exercise-next-year/article19679857.ece>

Q.44) Consider the following statements

1. Chakmas are predominantly Buddhists, while Hajongs are Hindus
2. Home Ministry cleared the citizenship for over one lakh Chakma-Hajongs , but they will not have any land ownership rights in Arunachal Pradesh and will have to apply for Inner Line Permits to reside in the State

Select the correct statements

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

Q.44) Solution (c)

Centre will grant citizenship to all Chakma and Hajong refugees living in the Northeast.

The ethnic groups from Chittagong Hill Tracts of Bangladesh, where they faced religious persecution, had fled to India in the 1960s.

In 2015, the Centre was directed by the Supreme Court to confer citizenship to these refugees.

The government now wants to find a "middle ground" so the Supreme Court order to grant citizenship to Chakma-Hajong refugees could be honoured without diluting the rights of the local population.

The stateless groups have lived in Arunachal Pradesh for over 50 years. Many fled when their land was submerged by the Kaptai Dam in the 1960s. They entered India through the Mizoram in the 1960s.

The Chakmas are Buddhists while the Hajongs are Hindus.

While some of them stayed back, the government moved a majority of the refugees to Arunachal Pradesh later on.

Initially treated as refugees, the Indian government decided to grant them citizenship under Section 5(i)(a) of the Citizenship Act following a joint statement by the PMs of India and Bangladesh in 1972.

Based in Arunachal for over 50 years, there are over 1 lakh people from these ethnic groups today - up from around 5,000 in 1964-69.

The refugees will not be given rights, including land ownership, enjoyed by scheduled tribes in Arunachal Pradesh.

However, they may be given Inner Line permits required for non-locals in Arunachal Pradesh to travel and work.

Q.45) Consider the following statements about Forest-PLUS Programme

1. It is a bilateral program between India and the U.S. to develop solutions for sustainable forest land use in India
2. It prepares India to implement successfully Reducing Emissions from Deforestation and Forest Degradation (REDD+)
3. United States Agency for International Development (USAID) and Ministry of Environment, Forest and Climate Change (MoEF&CC) are part of the programme

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.45) Solution (d)

USAID Forest-PLUS is a bilateral program between India and the U.S. to develop solutions for sustainable forest land use in India. The program, in partnership with the Ministry of

Environment, Forest and Climate Change (MoEFCC), prepares India to implement successfully Reducing Emissions from Deforestation and Forest Degradation (REDD+), an international mechanism for climate change mitigation, livelihoods improvement, and biodiversity protection.

Forests in India are an integral part of the cultural life of its people, deliver many of the ecosystem services at the foundation of India's economy, and support India's status as one of the world's mega-biodiversity countries. Almost 300 million Indians depend on forest resources for their livelihoods, including 87 million tribal people. Deforestation has stabilized, but past conversion has reduced India's forest area and unsustainable use has degraded their ecology. India's forests have half the forest biomass they once had.

India's central government sets national forest policies guiding forest management. As two examples, India's National Action Plan on Climate Change (NAPCC) includes a National Mission for a Green India (GIM) that would "enhance carbon sinks in sustainably managed forests and other ecosystems". The MoEFCC 2014 National Working Plan Code defines standards for forest management that include "conservation of forests and reducing forest degradation, maintenance and enhancement of ecosystem services . . . , increasing the growing stock and carbon sequestration potential, [and] people's involvement in planning and management of forests fulfilling socio-economic and livelihood needs". State Forest Departments (SFDs) use these policies to develop and implement management prescriptions for each forest division.

Forest-PLUS brings together Indian and American expertise to develop technologies, tools, and methods of forest management to meet the technical challenges of managing forests for ecosystem health, carbon stocks, biodiversity, and livelihoods. Forest-PLUS collaborates with Indian forestry institutions and local communities to pilot these solutions in landscapes of Karnataka, Madhya Pradesh, Himachal Pradesh, and Sikkim. These landscapes represent tropical moist deciduous, tropical dry deciduous, moist temperate, and subtropical broadleaf forest types.

Source: http://www.business-standard.com/article/government-press-release/dr-harsh-wardhan-inaugurates-conference-on-sustainable-landscapes-forest-ecosystems-theory-117091200734_1.html

Q.46) Consider the following statements about WASP-12b

1. It was discovered by the SuperWASP planetary transit survey
2. The measured albedo is twice that of Earth
3. It is categorised as a hot Jupiter

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.46) Solution (c)

WASP-12b is an extrasolar planet orbiting the star WASP-12, discovered by the SuperWASP planetary transit survey. Its discovery was announced on April 1, 2008.

WASP-12b reflects almost no light, making it appear essentially pitch black.

The measured albedo of WASP-12b is 0.064 at most. This makes WASP-12b two times less reflective than our Moon which has an albedo of 0.12. Earth's albedo 0.3.

WASP-12b orbits the Sun-like star WASP-12A.

With a radius almost twice that of Jupiter and a year of just over one Earth day, WASP-12b is categorised as a hot Jupiter.

Since it is so close to its parent star, the gravitational pull of the star has stretched WASP-12b into an egg shape and raised the surface temperature of its daylight side to 2600 degrees Celsius.

The high temperature is also the most likely explanation for WASP-12b's low albedo.

The daylight side of WASP-12b is so hot that clouds cannot form and alkali metals are ionised.

It is even hot enough to break up hydrogen molecules into atomic hydrogen which causes the atmosphere to act more like the atmosphere of a low-mass star than like a planetary atmosphere. This leads to the low albedo of the exoplanet.

To measure the albedo of WASP-12b, the scientists observed the exoplanet last year during an eclipse, when the planet was near full phase and passed behind its host star for a time.

This is the best method to determine the albedo of an exoplanet, as it involves directly measuring the amount of light being reflected. However, this technique requires a precision ten times greater than traditional transit observations.

WASP-12b is only the second planet to have spectrally resolved albedo measurements, the first being HD 189733b, another hot Jupiter.

WASP-12b atmosphere is composed of atomic hydrogen and helium.

Q.47) Consider the following statements about Air Independent Propulsion (AIP) Systems in Submarines

1. AIP modules give stealth and extended endurance to diesel-electric submarines by allowing them to stay submerged longer.
2. DRDO is developing fuel cell based Air Independent Propulsion (AIP) system

Select the correct statements

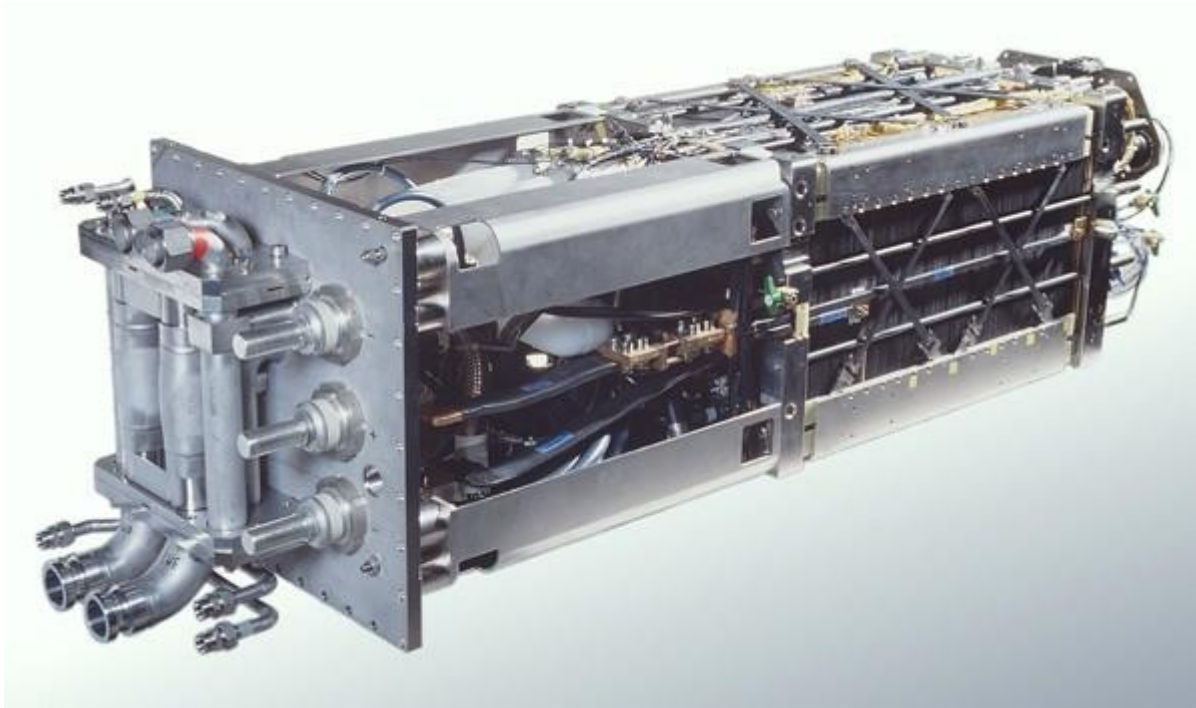
- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.47) Solution (c)

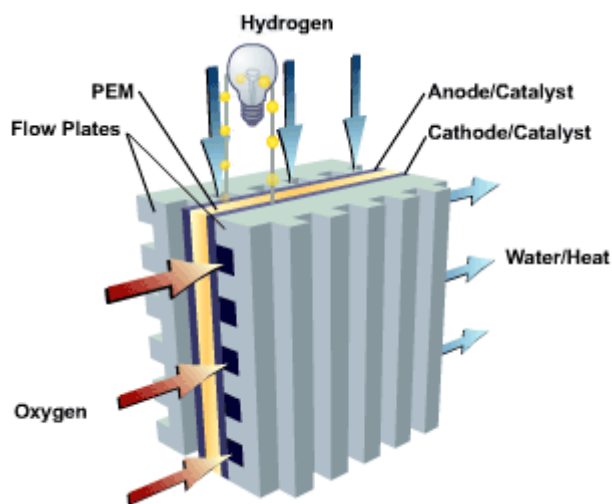
The use of AIP on a diesel-electric submarine, greatly increases their underwater endurance, allowing them to continuously stay submerged for weeks without surfacing. Although the submarine eventually needs to surface to charge its batteries and their endurance is nowhere on-par with nuclear powered submarines, the vast increase in endurance offered by AIP gives them an advantage over non AIP equipped diesel-electric submarines. However AIP doesn't give any advantage other than increased underwater advantage and it should not be assumed that AIP-equipped submarines will always defeat their non-AIP equipped counterparts.

Fuel Cells

A Fuel Cell is a device which converts chemical energy into electricity. This is done using a fuel and an oxidizer. A typical fuel cell converts Hydrogen (fuel) and Oxygen (oxidizer) into electricity, with water and heat released as by-products. This is done by an electrolytic cell which consists of two electrodes, one positive (anode) and the other negative (cathode), separated by an electrolytic barrier. The reaction between the cathode and anode produces an electric current, which is used to charge the batteries. A chemical catalyst is used to speed up the reactions.



Phosphoric Acid Fuel Cells (PAFC) and Proton Exchange Membrane Fuel Cells (PEMFC) are presently used in submarines. Germany is said to be the world leader in developing and fielding this type of AIP, which is backed by the large number of export orders they have received. France is developing a new generation Fuel Cell AIP as a successor to its MESMA. India is another country which is developing a Fuel Cell AIP to be integrated on their submarines.



Fuel cells are the most advanced and preferred AIP technology today. This is because of the major advantages they offer in stealthiness and power generation. They contribute to the stealthiness of the sub as Fuel Cells have almost no moving parts, which significantly reduces the acoustic signature of the sub. Fuel Cells can achieve an efficiency of over 80% under certain circumstances. They can also be scaled easily into large or small sizes

depending on the displacement of the submarine. This is easier than developing different systems for each submarine class. Hydrogen Fuel Cells are also very environment friendly as they generate no exhaust fumes, which in turn eliminates the need to have special exhaust scrubbing and disposal machinery. The only drawback is that they are expensive and complex.

L&T is currently partnering with the DRDO as Lead System Integrator for the indigenous development of the fuel cell based AIP system.

Source: <http://www.thehindu.com/todays-paper/tp-miscellaneous/tp-others/scorpene-submarines-to-get-indian-aip-modules/article19701741.ece>

Q.48) Java is an island of which of the following?

- a) Sri Lanka
- b) Borneo
- c) Nicobar
- d) Indonesia

Q.48) Solution (d)



Source: <http://www.thehindu.com/todays-paper/tp-miscellaneous/tp-others/tiger-species-thought-extinct-may-be-alive/article19701660.ece>

Q.49) The Trade Disputes Act of 1929 provided for

- a) the participation of workers in the management of industries
- b) arbitrary powers to the management to quell industrial disputes
- c) an intervention by the British Court in the event of a trade dispute
- d) a system of tribunals and a ban on strikes

Q.49) Solution (d)

The Trade Disputes and Trade Unions Act 1927 (17 and 18 Geo V c 22) was a British Act of Parliament passed in response to the General Strike of 1926, introduced by the Attorney General for England and Wales, Sir Douglas Hogg MP.

The Act declared unlawful secondary action and any strike whose purpose was to coerce the government of the day directly or indirectly. These provisions were declaratory insofar as such strikes had already been ruled unlawful by Astbury, J in the National Sailors' and Firemen's Union v Reed. The Act reaffirmed his judgment and gave it the force of statute law. In addition, incitement to participate in an unlawful strike was made a criminal offence, punishable by imprisonment for up to two years; and the attorney general was empowered to sequester the assets and funds of unions involved in such strikes.

Q.50) Which of the following statements is/are correct?

Proper design and effective implementation of UN-REDD+ Programme can significantly contribute to

1. protection of biodiversity
2. resilience of forest ecosystems
3. poverty reduction

Select the correct code

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

Q.50) Solution (d)

The United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries was launched in 2008 and builds on the convening role and technical expertise of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP).

The UN-REDD Programme supports nationally led REDD+ processes and promotes the informed and meaningful involvement of all stakeholders, including indigenous peoples and other forest-dependent communities, in national and international REDD+ implementation.

Reducing Emissions from Deforestation and Forest Degradation (REDD+) is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths for sustainable development.

Q.51) Consider the following statements about Right to Information Act 2005

1. It extends to whole of India except the State of Jammu and Kashmir & Tribal areas
2. The Act states that the information pertaining to the allegations of corruption and human rights violation will not fall under the exemption given to intelligence and security organisations under Section 24 of the RTI Act

Select the correct statements

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

Q.51) Solution (b)

Right to Information (RTI) is an Act of the Parliament of India to provide for setting out the practical regime of right to information for citizens and replaces the erstwhile Freedom of information Act, 2002. Under the provisions of the Act, any citizen of India may request information from a "public authority" (a body of Government or "instrumentality of State") which is required to reply expeditiously or within thirty days. The Act also requires every public authority to computerise their records for wide dissemination and to proactively certain categories of information so that the citizens need minimum recourse to request for information formally.

This law was passed by Parliament on 15 June 2005 and came fully into force on 12 October 2005. The first application was given to a Pune police station. Information disclosure in India was restricted by the Official Secrets Act 1923 and various other special laws, which the new RTI Act relaxes. It codifies a fundamental right of citizens.

The Act covers the whole of India except Jammu and Kashmir, where J&K Right to Information Act is in force. It covers all constitutional authorities, including the executive,

legislature and judiciary; any institution or body established or constituted by an act of Parliament or a state legislature. It is also defined in the Act that bodies or authorities established or constituted by order or notification of appropriate government including bodies "owned, controlled or substantially financed" by government, or non-Government organizations "substantially financed, directly or indirectly by funds"

The CBI cannot claim absolute exemption from disclosing information pertaining to allegations of corruption and human rights violations held by it under the RTI Act, the Delhi High Court has held.

The CBI has been denying information citing Section 24 of the Right to Information (RTI) Act, which says that its provisions will not apply on intelligence and security organisations, which also include IB, RAW, NIA and the Enforcement Directorate.

The CBI was included in the list by the erstwhile UPA Government.

The Act however clearly states that the information pertaining to the allegations of corruption and human rights violation will not fall under the exemption given to these organisations under Section 24 of the RTI Act.

Source: http://www.business-standard.com/article/current-affairs/cbi-is-not-fully-exempt-from-rti-act-rules-delhi-high-court-117091700218_1.html

Q.52) Consider the following statements about GST Composition Scheme

1. It can be opted by any taxpayer whose turnover is less than Rs. 1 Crore
2. Those who opt for this scheme can file returns on a quarterly basis

Select the correct statements

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

Q.52) Solution (b)

Composition Scheme is a simple and easy scheme under GST for taxpayers. Small taxpayers can get rid of tedious GST formalities and pay GST at a fixed rate of turnover. This scheme can be opted by any taxpayer whose turnover is less than Rs. 75 lakh.

A taxpayer whose turnover is below Rs 75 lakhs can opt in for Composition Scheme. In case of North-Eastern states and Himachal Pradesh, the limit is Rs 50 lakh.

Composition Scheme – Applicable GST Rate			
Type of Business	CGST	SGST	Total GST
Manufacture	1%	1%	2%
Traders (Goods)	0.5%	0.5%	1%
Supplier of food or drinks for human consumption (without alcohol)	2.5%	2.5%	5%
Service Providers	Cannot opt for Composition Scheme		

The following are the advantages of registering under composition scheme:

- Lesser compliance (returns, maintaining books of record, issuance of invoices)
- Limited tax liability
- High liquidity as taxes are at a lower rate

The disadvantages of registering under GST composition scheme:

- A limited territory of business. The dealer is barred from carrying out inter-state transactions
- No Input Tax Credit available to composition dealers
- The taxpayer will not be eligible to supply goods through an e-commerce portal

Source: <http://www.livemint.com/Politics/mA2icDDIuLyWgv9ydAYbIN/GSTN-reopens-composition-scheme-for-small-taxpayers.html>

Q.53) Google TEZ is associated with

- Unified Payments Interface (UPI)
- R&D project with a mission of providing Internet access to rural and remote areas
- Voice over Long-Term Evolution
- 3D Printing

Q.53) Solution (a)

Google Tez is a mobile wallet based on the Unified Payments Interface (UPI) platform built by the National Payments Corporation of India (NPCI). UPI-enabled wallets permit users to transfer money without requiring the bank account details of the recipient. The UPI ID of the recipient is used as a proxy for the account number and IFSC code, thereby simplifying the process of money transfer.

Unlike most other wallets apps, it does not require money to be stored in the app to make digital payments. Tez works as an extension of one's bank account, which means that unused money remains in the bank earning interest. Each transaction is initiated by the sender entering his UPI pin with the additional security of existing phone locks. The app is available for download on both Android and iOS devices. This is functionally similar to the BHIM app.

Source: <http://www.thehindu.com/sci-tech/technology/what-is-google-tez/article19709715.ece>

Q.54) Money bill can be introduced in the state legislature only on the recommendation of:

- a) Speaker
- b) Chief Minister
- c) Governor
- d) Finance Minister

Q.54) Solution (c)

Money bill can be introduced only in the Legislative Assembly and only on the recommendation of Governor. Also, Money bill can be introduced only in the Lok Sabha only on the recommendation of President.

Source: <http://www.livemint.com/Politics/ezr9RyS3cHMAIZVhBOr3gJ/Aadhaar-as-money-bill-SC-to-hear-Jairam-Rameshs-plea-chall.html>

Q.55) 'Ngari' was in news recently. It is located in

- a) Middle East
- b) South China Sea
- c) Central Asia
- d) None of the above

Q.55) Solution (d)

Ngari Prefecture is a prefecture of China's Tibet Autonomous Region. Its capital is Gar County. Its administrative centre is the town of Burang Town. The largest settlement is Shiquanhe. Ngari Prefecture includes part of the Aksai Chin area.

Source: <http://www.thehindu.com/society/history-and-culture/kailash-is-considered-a-sacred-mountain-by-buddhists-jains-hindus-and-tibetans/article18822706.ece>

Q.56) Which of the following states shares its border with Nepal

1. Arunachal Pradesh
2. Assam
3. Bihar
4. West Bengal
5. Sikkim

Select the correct code:

- a) 3, 4 and 5
- b) 2, 3 and 5
- c) 1, 2 and 5
- d) 1, 2, 3 and 4

Q.56) Solution (a)

The five Indian states that share a land border with Nepal are Uttarakhand, Uttar Pradesh, Bihar, West Bengal, and Sikkim.





Q.57) Which of the following is/are correctly matched?

- a) CNG – Methane
- b) LPG – Propane
- c) Both (a) and (b)
- d) Neither (a) nor (b)

Q.57) Solution (c)

CNG is made by compressing natural gas (which is mainly composed of methane, CH_4), to less than 1 percent of the volume it occupies at standard atmospheric pressure.

Liquefied petroleum gas or liquid petroleum gas (LPG or LP gas), also referred to as simply propane or butane, are flammable mixtures of hydrocarbon gases used as fuel in heating appliances, cooking equipment, and vehicles. Varieties of LPG bought and sold include mixes that are mostly propane (C_3H_8), mostly butane (C_4H_{10}) and, most commonly, mixes including both propane and butane.

Q.58) Ghantasala will be developed as a major Buddhist destination and it will be themed on Mahaparinirvana of the Buddha. 'Mahaparinirvana' signifies

- a) Renunciation
- b) Buddha's first sermon
- c) Search of Truth
- d) Liberation

Q.58) Solution (d)

The Buddhist term, "Mahaparinirvana", meaning "great, complete Nirvana" is also encountered. The word "Mahaparinirvana" usually refers to the ultimate state of Nirvana (everlasting, highest peace and happiness) entered by an Awakened Being (Buddha) or "arhat" at the moment of physical death, when the mundane skandhas (constituent elements of the ordinary body and mind) are shed and only the Buddhist skandhas remain (this in Mahayana Buddhism). However, it can also refer (in the Mahayana) to the same inner spiritual state reached during a Buddha's physical lifetime too. In the Mahayana Buddhist scripture entitled the "Mahayana Mahaparinirvana Sutra", the Buddha teaches that unlike "ordinary" Nirvana, "Mahaparinirvana" is the highest state or realm realised by a perfect Buddha, a state in which that Buddhist being awakens to "the Eternal, Bliss, the Self, and the Pure". Only in Mahaparinirvana is this True Self ("atman") of the Buddha said to be fully discernible.

The parinirvana of Gautama Buddha is depicted in the Mahaparinibbana Sutta and the Mahaparinirvana Sutra.

Source: <http://www.thehindu.com/news/national/andhra-pradesh/70-ft-budha-statue-to-adorn-tourist-project-in-ghantasala/article19530530.ece>

Q.59) Hamas, is a Islamic fundamentalist organization from

- a) Syria
- b) Palestine
- c) Nigeria
- d) Yemen

Q.59) Solution (b)

It is a Palestinian Sunni-Islamic fundamentalist organization. It has been the de facto governing authority of the Gaza Strip since its takeover of that area in 2007. During this period it fought several wars with Israel. It is regarded, either in whole or in part, as a

terrorist organization by several countries and international organizations, most notably by Israel, the United States and the European Union.

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

Q.60) Bezbaruah Committee is concerned with

- a) Police reforms
- b) Caste discrimination
- c) Communal Violence
- d) Racial discrimination

Q.60) Solution (d)

Bezbaruah Committee Report recommends on racial discrimination of Northeast Indians in metros.

The Bezbaruah Committee Report headed by M.P. Bezbaruah, Member, North Eastern Council, was set up in February 2014 after the death of Nido Tania. The Committee's mandate was to listen to the issues raised by people from Northeast India living especially in the metro cities. The committee was also asked to suggest measures which could be implemented by the government of India. The Committee filed its report with Ministry of Home Affairs on July 11, 2014.

Source: <http://www.thehindu.com/opinion/op-ed/diversity-in-delhi-police/article19535446.ece>

Q.61) Consider the following statements about Kinnal Craft

1. It is a traditional wooden craft local from Odisha
2. It has been granted Geographical Indication

Select the correct statements

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

Q.61) Solution (b)

Kinnal Craft or Kinhal Craft, is a traditional wooden craft local to the town of Kinhal, or Kinnal, in Koppal District, North Karnataka.

The town is famous for Kinhal toys and religious idols.

Source: <http://www.thehindu.com/news/cities/bangalore/a-revival-of-sorts-for-kinnala-dolls-this-dasara/article19723786.ece>

Q.62) Foldscope is a

- a) It gives pictures the appearance of solid forms, as seen in nature
- b) An instrument for viewing the interior of the eye, particularly the retina
- c) An instrument for observing or exhibiting fluorescence
- d) None of the above

Q.62) Solution (d)

A Foldscope is an optical microscope that can be assembled from simple components, including a sheet of paper and a lens. It was developed by Manu Prakash and designed to cost less than US\$1 to build. It is part of the "frugal science" movement which aims to make cheap and easy tools available for scientific use in the developing world.

Source: <http://www.hindustantimes.com/india-news/govt-plans-lab-on-boat-for-analysing-brahmaputra-river/story-9Vv6yrr5MyP9Qcnqcw68FK.html>

Q.63) Consider the following statements about Brahmaputra Biodiversity and Biology Boat (B4)

1. The first laboratory under the Brahmaputra Biodiversity Biology Boat (B4) initiative will cover the state of Assam
2. It will place a barge equipped with laboratories to analyse soil, plants, microbes and water at different points along the river to generate new knowledge for multiple agencies involved in river management

Select the correct statements

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2

d) Neither 1 nor 2

Q.63) Solution (c)

The first experiments will likely begin this December and will have the boat — a re-purposed one — trawl Pasighat, Dibrigarh, Neemati, Tejpur and Guwahati in Assam and managed by the Indian Institute of Technology, Guwahati. The “B4” will also have a teaching laboratory for school and college children.

The Department of Biotechnology will commission a two-tiered barge that will roughly be the size of two large conference rooms and host scientists and a full-fledged lab that will allow those on board to collect samples from various stretches of the river, perform tests on water quality and biodiversity of the wider ecosystem.

There would also be ‘mobile labs’ that would run along the tributaries of the Brahmaputra to feed in data to the B4.

Source: <http://www.thehindu.com/news/national/a-boat-lab-to-study-brahmaputra/article19722816.ece>

Q.64) Which of the following statements about 'qubits' is/are correct?

1. It can exist in both '0' and '1' states at the same time
2. It is an arrangement of four bits
3. It is the fundamental building block of a quantum computer

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.64) Solution (c)

Instead of bits, which conventional computers use, a quantum computer uses quantum bits—known as qubits. To illustrate the difference, imagine a sphere. A bit can be at either of the two poles of the sphere, but a qubit can exist at any point on the sphere.

The bit is the basic unit of information. It is used to represent information by computers. Regardless of its physical realization, a bit has two possible states typically thought of as 0

and 1, but more generally—and according to applications—interpretable as true and false, or any other dichotomous choice. An analogy to this is a light switch—its OFF position can be thought of as 0 and its ON position as 1.

A qubit has a few similarities to a classical bit, but is overall very different. There are two possible outcomes for the measurement of a qubit—usually 0 and 1, like a bit. The difference is that whereas the state of a bit is either 0 or 1, the state of a qubit can also be a superposition of both. It is possible to fully encode one bit in one qubit. However, a qubit can hold even more information, e.g. up to two bits using superdense coding.

Source: <http://www.thehindu.com/news/national/india-joins-quantum-computing-race/article19723359.ece>

Q.65) The 'Golden Triangle' of South-East Asia refers to

- a) The shallow seas near Straits of Malacca where high-density fishing is done
- b) An extensive opium producing area
- c) An area infested with insurgency, terrorism and trafficking
- d) An area prone to maximum cyclone and Tsunami hits

Q.65) Solution (b)

The Golden Triangle is one of Asia's two main opium-producing areas. It is an area of around 950,000 square kilometres (367,000 sq mi) that overlaps the mountains of three countries of Southeast Asia: Myanmar, Laos and Thailand.



Along with Afghanistan in the Golden Crescent, it has been one of the most extensive opium-producing areas of Asia and of the world since the 1950s. Most of the world's heroin came from the Golden Triangle until the early 21st century when Afghanistan became the world's largest producer.

Source: <http://thediplomat.com/2017/09/war-drugs-and-peace-afghanistan-and-myanmar/>

Q.66) Consider the following statements about INS Kalvari

1. It is a diesel-electric attack submarine
2. It is a part of Project 75 of Indian Navy
3. It is built in association with Russia

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.66) Solution (a)

Kalvari which is named after the dreaded Tiger Shark is equipped with state of the art technology, including superior stealth features such as “advanced acoustic silencing techniques”, low radiated noise and the ability to launch a crippling attack on the enemy using precision guided weapons.

It was built at MDL in collaboration with France’s DCNS as part of Project 75 of Indian Navy.

It is the first of the Scorpene class submarines.

It is the stealthiest diesel-electric attack submarine

Source: <http://economictimes.indiatimes.com/news/defence/first-scorpene-submarine-ins-kalvari-delivered-to-navy-to-be-commissioned-soon/articleshow/60783199.cms>

Q.67) Consider the following statements about Peer-to-peer lending (P2P) in India

1. All peer-to-peer lending (P2P) platforms will be regulated by the SEBI
2. All peer-to-peer lending (P2P) platforms will be treated as non-banking financial companies (NBFCs)

Select the correct statements

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

Q.67) Solution (b)

P2P lending is a form of crowd-funding used to raise loans which are paid back with interest. It can be defined as the use of an online platform that matches lenders with borrowers in order to provide unsecured loans.

The Reserve Bank of India...specifies a non-banking institution that carries on 'the business of a peer to peer lending platform' to be an NBFC.

As per the RBI, the business of a P2P lending platform is defined as the service of loan facilitation, via online medium or otherwise, to "the participants who have entered into an arrangement with that platform to lend on it or to avail of loan facilitation services provided by it.

Source: <http://www.livemint.com/Industry/hRoVwVIZrYEmtuSzSd4PaO/P2P-lending-firms-to-be-regulated-by-RBI.html>

Q.68) Ropur Nuclear Power Plant is located in

- a) Sri Lanka
- b) Bangladesh
- c) Myanmar
- d) Afghanistan

Q.68) Solution (b)

India is collaborating with Russia to build the Ropur nuclear power plant in Bangladesh, the first initiative under a Indo-Russia deal to undertake atomic energy projects in third countries.

This will also be India's first atomic energy venture abroad.

India signed a civil nuclear cooperation deal, along with two more agreements, with Bangladesh in April under which the two sides can supply and manufacture equipment, material for the atomic power plant.

The Roppur project, which is being built by the Russians near Dhaka, will be Bangladesh's first atomic energy project.

Source: <http://economictimes.indiatimes.com/news/politics-and-nation/india-collaborating-with-russia-for-nuclear-power-plant-in-bangladesh/articleshow/60767263.cms>

Q.69) Joint Comprehensive Plan of Action refers to which of the following

- a) The Chilcot Report
- b) India-Iran Nuclear Deal
- c) The Heart of Asia - Istanbul Process
- d) None of the above

Q.69) Solution (d)

The Joint Comprehensive Plan of Action (JCPOA) known commonly as the **Iran deal**, is an international agreement on the nuclear program of Iran reached in Vienna on 14 July 2015 between **Iran, the P5+1 (the five permanent members of the United Nations Security Council—China, France, Russia, United Kingdom, United States—plus Germany) and the European Union.**

Source: <http://www.thehindu.com/news/national/india-walks-a-fine-line-as-us-iran-spar-over-nuclear-deal/article19733664.ece>

Q.70) Which of the following statements is/are correct?

- 1. Near-Earth Objects (NEOs) are NEAs (near-Earth asteroids) and NECs (near-Earth comets)
- 2. Spacewatch and Pan-STARRS are asteroid survey projects of NASA's Near Earth Object Observations Program

Select the correct statements

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

Q.70) Solution (c)

Near-Earth Objects (NEOs) are comets and asteroids that have been nudged by the gravitational attraction of nearby planets into orbits that allow them to enter the Earth's neighbourhood. Composed mostly of water ice with embedded dust particles, comets originally formed in the cold outer planetary system while most of the rocky asteroids formed in the warmer inner solar system between the orbits of Mars and Jupiter.

In technical terms, NEOs are NEAs (near-Earth asteroids) and NECs (near-Earth comets). NEAs are asteroids whose perihelion distance is less than 1.3 au. NECs are comets whose perihelion distance is less than 1.3 au and whose orbital period is less than 200 years.

Both Spacewatch and Pan-STARRS are asteroid survey projects of NASA's Near Earth Object Observations Program.

Source: <http://www.thehindu.com/sci-tech/science/hubble-spots-unique-binary-asteroid-with-comet-like-features/article19726657.ece>

Q.71) OSIRIS-Rex is a NASA study and sample return mission of which of the following asteroid?

- a) Florence
- b) Bennu
- c) Ceres
- d) Phobos & Deimos

Q.71) Solution (b)

The Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer (OSIRIS-REx) is a NASA asteroid study and sample return mission.

Launched on 8 September 2016, its mission is to study asteroid 101955 Bennu, a carbonaceous asteroid, and return a sample to Earth in 2023 for detailed analysis.

The material returned is expected to enable scientists to learn more about the formation and evolution of the Solar System, its initial stages of planet formation, and the source of organic compounds that led to the formation of life on Earth.

If successful, OSIRIS-REx will be the first U.S. spacecraft to return samples from an asteroid.

Source: <http://www.thehindu.com/todays-paper/tp-miscellaneous/tp-others/nasa-asteroid-mission-receives-a-gravitational-kick-from-earth/article19745175.ece>

Q.72) Consider the following statements about Meitei script

1. Meitei language belongs to the Tibeto-Burmese branch of the Sino-Tibetan family of languages
2. It is currently classified as a vulnerable language by UNESCO
3. It is also called as Manipuri script

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.72) Solution (d)

Meitei is the predominant language and lingua franca in the southeastern Himalayan state of Manipur, in northeastern India. It is the official language in government offices. Meitei is also spoken in the Indian states of Assam and Tripura, and in Bangladesh and Burma (now Myanmar). It is currently classified as a vulnerable language by UNESCO.

Meitei is a Tibeto-Burman language whose exact classification remains unclear. It has lexical resemblances to Kuki and Tangkhul Naga.

Meitei has its own script, which was used until the 18th century. The script was lost to the speakers of the language when Shantidas Gosai, a Hindu missionary, spread Vaishnavism in the region in 1709, during the reign of Pamheiba. The King, who assumed the name Garib Niwaz, decreed its replacement with that of Bengali.

Manipuri belongs to the Tibeto-Burmese branch of the Sino-Tibetan family of languages and has no use for several Bengali letters, some of which its speakers are unable to pronounce correctly. Writers are known to use Bengali letters whimsically, with the result that writers use different spellings for several words. Personalised spellings imposed by university professors on the research scholars have aggravated the linguistic problem.

Source: <http://www.thehindu.com/news/national/other-states/banished-manipuri-script-stages-a-comeback/article19743482.ece>

Q.73) Consider the following statements about Kattunayakka'

1. They are classified as Particularly Vulnerable Tribal Groups (PVTG)
2. They are inhabitants of the Western Ghats
3. They are also called as Cholanaickan and Pathinaickans

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.73) Solution (d)

Kattunayakan are a designated Scheduled Tribe in the Indian states of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu.

Kattunayakan is one of the tribes who had been the true inhabitants of forest. As the name indicates they were once the kings of jungles. They rarely mix with other tribes and still follow black magic and sorcery. They are completely dependent on forest and forest products and subsist on honey, roots and barks of plants and what small animals that they trap or fell with their bows and arrows. They are also known as Then Kurumas as they collect honey from the forest.

They follow a religion which is strongly rooted in their culture and worship animals, birds, trees, rocks and snakes and almost everything natural. They also worship their ancestors. The physical features of hill-tribes are very obvious in them and their language is a mixture of all Dravidian languages.

The Kattunayakan community is found nowadays in Wayanad, Kozhikode and Malappuram districts. While they are called Kattunayakan in Wayanad, those belonging to interiors of Nilambur of Malappuram district are called Cholanaickan and those who live in the plains of Malappuram district are called Pathinaickans.

Source: <http://www.thehindu.com/news/national/kerala/tribals-in-wayanad-wait-for-the-promised-land/article19743621.ece>

Q.74) 'Neela Kurinji' is found in

- a) Tropical montane forests of Western Ghats
- b) Andaman Islands
- c) Tropical rain forests of northeast

d) Maikal Hills

Q.74) Solution (a)

It is a shrub that is found in the shola forests of the Western Ghats in South India. Nilgiri Hills, which literally means the blue mountains, got their name from the purplish blue flowers of Neelakurinji that blossoms only once in 12 years.

Source: <http://www.thehindu.com/news/national/karnataka/head-to-sandur-to-see-a-flower-that-blooms-once-in-12-years/article19711679.ece>

Q.75) Which one of the following books of ancient India has the love story of the son of the founder of Sunga dynasty?

- a) Swapnavasavadatta
- b) Malavikagnimitra
- c) Meghadoota
- d) Ratnavati

Q.75) Solution (b)

Malavikagnimitra is a Sanskrit play by Kālidāsa. It is his first play. (kalidasa's malavikagnimitram is based on some events of the reign of Pushyamitra Shunga.)

The play tells the story of the love of Agnimitra, the Shunga Emperor at Vidisha, for the beautiful hand-maiden of his chief queen. He falls in love with the picture of an exiled servant girl named Mālavikā. He must resort to the help of his jester and play a game of subterfuge merely to look at the new girl. When the queen discovers her husband's passion for this girl, she becomes infuriated and has Mālavikā imprisoned, but as fate would have it, in the end she is discovered to be of royal birth and is accepted as one of his queens.

The play contains an account of the Rajasuya sacrifice performed by Pushyamitra Shunga and an elaborate exposition of a theory on music and acting.

Q.76) The recently launched Saubhagya scheme is associated with

- a) Rural and Urban Electrification
- b) Primary Education
- c) Skill Development

d) Micro-loans

Q.76) Solution (a)

PM Sahaj Bijli Har Ghar Yojana (Saubhagya), every household in the country will be given an electricity connection. No price will be charged for the poor to get an electricity connection and the government will go to their houses to give them the connection.

Under the scheme, the power connection will be provided free of cost to all poor families.

The total outlay for Saubhagya is Rs 16,320 crore.

The outlay for rural households is Rs 14,025 crore, while that for urban households is Rs 2,295 crore. The urban non-poor are excluded from the scheme.

Rs 12,320 crore has been earmarked as gross budgetary support for Saubhagya.

The Union government will provide a 60 per cent grant toward funding the scheme, while the states will provide a 10 per cent grant. The remaining amount will be covered by loans.

Source: <http://www.thehindu.com/news/national/modi-launches-free-power-scheme-for-poor/article19752583.ece>

Q.77) Swiss Challenge is concerned with

- a) Black Money
- b) European Union
- c) Social Impact Assessment
- d) A process of giving contracts

Q.77) Solution (d)

A Swiss challenge is a form of public procurement in some jurisdictions which requires a public authority (usually an agency of government) which has received an unsolicited bid for a public project (such as a port, road or railway) or services to be provided to government, to publish the bid and invite third parties to match or exceed it.

Some Swiss challenges also allow the entity which submitted the unsolicited bid itself then to match or better the best bid which comes out of the Swiss challenge process.

Source: <http://www.thehindu.com/news/national/govt-may-open-railway-lines-to-private-players/article19748086.ece>

Q.78) Consider the following statements about Agreement on Agriculture (AoA)

1. It was negotiated during the Doha Development Round of the General Agreement on Tariffs and Trade
2. All domestic support measures considered to distort production and trade (with some exceptions) fall into the Amber Box

Select the correct statements

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

Q.78) Solution (b)

The Agreement on Agriculture (AoA) is an international treaty of the World Trade Organization. It was negotiated during the Uruguay Round of the General Agreement on Tariffs and Trade, and entered into force with the establishment of the WTO on January 1, 1995.

In WTO terminology, subsidies in agriculture and agricultural produce are identified by "Boxes".

Green Box

- In simple terms, subsidies that do not distort trade fall in this box. According to WTO, green box subsidies should not distort trade, or at most cause minimal distortion.
- Example - environmental and conservation programs, research funding, inspection programs, domestic food aid including food stamps, and disaster relief, farmer training programs, pest-disease control program

Amber Box

- The subsidies that distort the international trade by making products of a particular country cheaper as compared to same or similar product from another country is slotted under this box.
- They distort trade balance because they encourage excessive production, therefore given country's product becomes cheaper than others, in the international market.

- **Example** :- Input subsidies such as subsidy on electricity , seeds , fertilizers , irrigation etc. Market support price (MSP) subsidies also fall under this box.
- **WTO limit** –
 - For developed country - 5% of agriculture production in 1986-88
 - For developing country - 10% of agriculture production in 1986-88

Blue Box

- These are basically Amber Box subsidies but they tend to limit the production. . Any support that would normally be in the amber box, is placed in the blue box if the support also requires farmers to limit their production.
- This "Box" is a hotly debated topic. Countries argue that Blue box subsidies are crucial for ushering in agricultural reforms. Currently only few countries like Norway , Iceland , Slovenia etc use this kind of subsidies.
- **Example** - Subsidies that don't increase with production. For example subsidies linked with acreage or number of animals.

Source: <http://economictimes.indiatimes.com/news/economy/foreign-trade/g33-nations-wants-sops-for-food-security-in-global-rules/articleshow/60834091.cms>

Q.79) Consider the following statements about G-33 countries.

1. It is an Informal coalition seeking to significantly reduce fisheries subsidies
2. It also seeks more disciplines on the use of anti-dumping measures

Select the correct statements

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

Q.79) Solution (d)

G-33

Also called "Friends of Special Products" in agriculture. Coalition of developing countries pressing for flexibility for developing countries to undertake limited market opening in agriculture.

WTO members (47): Antigua and Barbuda, Barbados, Belize, Benin, Bolivia, Plurinational State of, Botswana, China, Congo, Côte d'Ivoire, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, India, Indonesia, Jamaica, Kenya, Korea, Republic of, Madagascar, Mauritius, Mongolia, Mozambique, Nicaragua, Nigeria, Pakistan, Panama, Philippines, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Senegal, Sri Lanka, Suriname, Chinese Taipei, Tanzania, Trinidad and Tobago, Turkey, Uganda, Venezuela, Bolivarian Republic of, Zambia, Zimbabwe.

Source: <http://economictimes.indiatimes.com/news/economy/foreign-trade/g33-nations-wants-sops-for-food-security-in-global-rules/articleshow/60834091.cms>

Q.80) Consider the following statements about 'Kaushal Panjee'

1. It is connected to the Social Economic Caste Census (SECC 2011)
2. It aims to be citizen centric end-to-end solution to aid mobilization of candidates for Rural Self Employment Training Institutes (RSETI) and Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)

Select the correct statements

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

Q.80) Solution (c)

Ministry of Rural Development has launched a mobilization platform 'Kaushal Panjee' (Skill Register).

The skill register aims to be citizen centric end-to-end solution to aid mobilization of candidates for RSETIs and DDU-GKY.

It facilitates mobilization through Self Help Group members, Gram Panchayat Functionaries, Block Officials, CSCs and directly by the candidate.

RSETIs and DDU-GKY Partners can access the Kaushal Panjee to connect with the mobilized rural youth.

Kaushal Panjee is connected to the Social Economic Caste Census 2011 which will help the States plan and target their mobilizations based on the socio-economic profile of households in their State.

Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=171070>

Q.81) Valongo Wharf Archaeological Site is located in

- a) Rio de Janeiro
- b) Valencia
- c) Florida
- d) Sylt

Q.81) Solution (a)

Valongo Wharf Archaeological Site is located in central Rio de Janeiro and encompasses the entirety of Jornal do Comércio Square. It is in the former harbour area of Rio de Janeiro in which the old stone wharf was built for the landing of enslaved Africans reaching the South American continent from 1811 onwards. An estimated 900,000 Africans arrived in South America via Valongo. The site is composed of several archaeological layers, the lowest of which consists of floor pavings in pé de moleque style, attributed to the original Valongo Wharf. It is the most important physical trace of the arrival of African slaves on the American continent.

Source: <http://www.thehindu.com/todays-paper/tp-in-school/valongo-wharf-gets-unesco-heritage-status/article19255007.ece>

Q.82) Consider the following statements

1. A masala bond is a rupee-denominated bond issued in the overseas market
2. Foreign Portfolio Investors (FPIs) are permitted to invest in Government Securities with a minimum residual maturity of one year but have been prohibited from investing in T-Bills

Select the correct statements

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

Q.82) Solution (c)

In India, the term “Foreign Portfolio Investor” refers to FIIs or their sub-accounts, or qualified foreign investors (QFIs) who are permitted to hold upto 10% stake in a company.

The term FPI was defined to align the nomenclature of categorizing investments of foreign investors in line with international practice. FPI stands for those investors who hold a short term view on the company, in contrast to Foreign Direct Investors (FDI). FPIs generally participate through the stock markets and gets in and out of a particular stock at much faster frequencies. Short term view is associated often with lower stake in companies. Hence, globally FPIs are defined as those who hold less than 10% in a company. In India, the hitherto existing closest possible definition to an FPI was Foreign Institutional Investor.

Portfolio Investment by any single investor or investor group cannot exceed 10% of the equity of an Indian company, beyond which it will now be treated as FDI.

As part of Risk based approach towards customer identity verification (KYC), FPIs have been categorized into three major categories:

- Category I (Low Risk) which would include Government and entities like Foreign Central banks, Sovereign wealth Funds, Multilateral Organizations, etc
- Category II (Moderate Risk) which would include Regulated entities such as banks, Pension Funds, Insurance Companies, Mutual Funds, Investment Trusts, Asset Management Companies, University related endowments (already registered with SEBI)
- Category III (High Risk) which would include all other FPIs not eligible to be included in the above two categories

FPIs are not allowed to invest in unlisted shares. However, all existing investments made by the FIIs/Sub-accounts/QFIs are grandfathered. In respect of those securities, where FPIs are not allowed to invest no fresh purchase shall be allowed as FPI. They can only sell their existing investments in such securities.

However, an exception has been made by permitting them to invest in unlisted non-convertible debentures/bonds issued by an Indian company in the infrastructure sector, where ‘infrastructure’ is defined in terms of the extant External Commercial Borrowings (ECB) guidelines;

FPIs are permitted to invest in Government Securities with a minimum residual maturity of one year. However, FPIs have been prohibited from investing in T-Bills.

FPI can invest in privately placed bonds if it is listed within 15 days.

Source: <http://www.financialexpress.com/market/as-rbi-separates-masala-bonds-from-fpi-limits-three-firms-line-up-for-issues/870741/>

Q.83) Consider the following statements about Wular Lake

1. It is the largest fresh water lake of India
2. It is fed by the Chenab River
3. The Tulbul navigation project is located just below the exit of the Wular Lake

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.83) Solution (c)

It is one of the largest fresh water lakes in Asia. It is sited in Bandipora district in the Indian state of Jammu and Kashmir. The lake basin was formed as a result of tectonic activity and is fed by the Jhelum River.

The Tulbul Project is a "navigation lock-cum-control structure" at the mouth of Wular Lake. The lake is one of the 26 Indian wetlands designated as a Ramsar site.

Jhelum River is a river of northwestern India and eastern Pakistan. It is the westernmost of the five rivers of Punjab, and passes through Jhelum District. It is a tributary of the Chenab River.

Source: <http://indianexpress.com/article/cities/srinagar/bilar-dar-jammu-kashmir-wular-lake-pm-narendra-modi-praise-mann-ki-baat-4859623/>

Q.84) Graded Surveillance Measure (GSM) is introduced by

- a) Securities and Exchange Board of India
- b) Reserve Bank of India
- c) Insurance Regulatory and Development Authority
- d) Pension Fund Regulatory and Development Authority

Q.4) Solution (a)

The BSE website mentions a list of more than 900 companies that are monitored under the Graded Surveillance Measure, designed by market regulator Securities and Exchange Board of India (SEBI).

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.

Source: <http://www.thehindu.com/todays-paper/tp-business/all-you-need-to-know-about-graded-surveillance-measure/article19749506.ece>

Q.85) Consider the following statements about Hyper spectral imaging

1. It can be used to calculate the nutrients as well as other minerals in the soil and be used to gauge its health
2. ISRO is going to launch the Hyperspectral Imaging Satellite or HySIS — using a critical chip it has developed

Select the correct statements

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

Q.85) Solution (c)

The Indian Space Research Organisation (ISRO) says it plans to launch a full-fledged niche Earth observation (EO) satellite — called the Hyperspectral Imaging Satellite or HySIS — using a critical chip it has developed.

ISRO is endeavouring to enter the domain of operational hyperspectral imaging from earth orbit" with a satellite that can see in 55 spectral or colour bands from 630 km above ground.

Hyperspectral or hypspx 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.

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

— the three most vital nutrients — as well as other minerals in the soil and be used to gauge its health.

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

Q.86) Union Cabinet has given its approval to EXIM Bank for signing Interbank Local Currency Credit Line Agreement. Consider the following statements

1. The agreement is not binding in nature
2. Exim Bank can enter into bilateral agreement with large development finance institutions to raise resources for its business

Select the correct statements

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

Q.86) Solution (c)

The Union Cabinet chaired by the Prime Minister Shri Narendra Modi has given its approval to the signing of the

- Interbank Local Currency Credit Line Agreement and
- Cooperation Memorandum Relating to Credit Ratings by Exim Bank with participating member banks under BRICS Interbank Cooperation Mechanism.

Interbank Local Currency Credit Line Agreement

- The initial Master Agreement on Extending Credit Facility in Local Currency under the BRICS Interbank Cooperation Mechanism had a validity of five years, which has expired in March 2017.
- It is understood that some of the member banks (like CDB and VEB; CDB and BNDES) have entered into bilateral agreements for local currency financing under the Master Agreement signed in 2012.
- Although the current conditions are not conducive to usage, it was useful to keep the same alive as an enabling feature in case a suitable opportunity materializes in future.

- Exim Bank raises resources in the off-shore market in diverse currencies and swaps to mitigate the risk.
- The umbrella Agreement would serve as an enabler to enter into bilateral agreements with member banks subject to national laws, regulations and internal policies of the signatories.
- The Agreements will promote multilateral interaction within the area of mutual interest which will deepen political and economic relations with BRICS nations.

Cooperation Memorandum Relating to Credit Ratings

- It would enable sharing of credit ratings amongst the BRICS member banks, based on the request received from another bank.
- This would be an ideal mechanism to mitigate the credit risks associated with cross-border financing.
- In future, such a mechanism could also serve as pre-cursor to the proposal of having an alternate rating agency by BRICS nations.

Exim Bank finances, facilitates and promotes India's international trade. It provides competitive finance at various stages of the business cycle covering import of technology, export product development, export production and export credit at pre-shipment and post-shipment stages and investments overseas.

Source: <http://economictimes.indiatimes.com/news/economy/policy/cabinet-gives-nod-for-pacts-by-exim-bank-under-brics-mechanism/articleshow/60856482.cms>

Q.87) Consider the following statements about Deep Space Gateway (DSG)

1. It is a planned human-tended facility in cislunar space
2. NASA and ESA signed an agreement supporting studies of the concept

Select the correct statements

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

Q.87) Solution (a)

The Deep Space Gateway (DSG) is a crew-tended cislunar space station planned by NASA and Roscosmos for construction in the 2020s. The station would be used as a staging point

for the proposed Deep Space Transport. It is also being considered by international partners for use as a staging ground for robotic and crewed lunar surface missions.

Source: <http://www.thehindu.com/todays-paper/tp-international/russia-us-to-cooperate-on-lunar-station/article19765995.ece>

Q.88) Global Competitiveness Index is released by

- a) World Trade Organization
- b) World Economic Forum
- c) International Monetary Fund
- d) World Bank

Q.88) Solution (b)

India has been ranked as the 40th most competitive economy -- slipping one place from last year's ranking -- on the World Economic Forum's global competitiveness index

The Global Competitiveness Index (GCI) is prepared on the basis of country-level data covering 12 categories or pillars of competitiveness.

Institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness, market size, business sophistication and innovation are the 12 pillars.

According to WEF's Executive Opinion Survey 2017, corruption is the most problematic factor for doing business in India.

The second biggest bottleneck is 'access to financing', followed by 'tax rates', 'inadequate supply of infrastructure', 'poor work ethics in national labour force' and 'inadequately educated work force', among others.

Source: <http://economictimes.indiatimes.com/news/economy/indicators/india-is-worlds-40th-most-competitive-economy-wef/articleshow/60851466.cms>

Q.89) Consider the following statements about Tourism in India

1. 'Adopt a Heritage' Project plans to entrust heritage sites to the public sector and private sector companies and individuals for the development of tourist amenities.

2. Incredible India 2.0 campaign will be focusing on specific promotional plans, with greater emphasis to be given to social media.
3. India's travel and tourism sector ranks 7th in the world in terms of its total contribution to the country's GDP

Select the correct statements

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) All of the above

Q.89) Solution (d)

India's travel and tourism sector ranks 7th in the world in terms of its total contribution to the country's GDP, according to a new report of the World Travel and Tourism Council (WTTC).

According to data, the travel and tourism sector generated Rs 14.1 trillion (USD208.9 billion) in 2016, which is world's 7th largest in terms of absolute size; the sum is equivalent to 9.6% of India's GDP.

President of India launched Incredible India 2.0 campaign and "Adopt a Heritage" project on the occasion of World Tourism Day.

Incredible India 2.0 campaign will be focusing on specific promotional plans, with greater emphasis to be given to social media, whereas, 'Adopt A Heritage' Project plans to entrust heritage sites to the public sector and private sector companies and individuals for the development of tourist amenities. The President on 37th edition of "World Tourism Day" also launched "New Incredible India Website"

Source: <http://www.thehindubusinessline.com/news/variety/president-launches-incredible-india-20-campaign-adopt-a-heritage-project/article9876374.ece>

Q.90) Which of the following statements is/are correct?

- a) The water holding capacity of the soil which uses compost helps with drought-proofing
- b) Farmers using compost therefore need less quantity of pesticides
- c) Both (a) and (b)
- d) Neither (a) nor (b)

Q.90) Solution (c)

Benefits of compost on the farm are well-known. 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. Because of good water retention, farmers do not need second or third sowing if rains fail. 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.

Source: <http://indianexpress.com/article/opinion/columns/swachh-bharat-mission-solid-waste-management-from-waste-to-health-4862741/>

