

Q.1) Consider the following statements with respect to 'Kyoto Protocol'

1. It is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets.
2. The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords."

Select the correct statements

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

Q.1) Solution (c)

The Kyoto Protocol is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits state parties to reduce greenhouse gas emissions, based on the scientific consensus that (part one) global warming is occurring and (part two) it is extremely likely that human-made CO₂ emissions have predominantly caused it. The Kyoto Protocol was adopted in Kyoto, Japan on 11 December 1997 and entered into force on 16 February 2005. There are currently 192 parties (Canada withdrew from the protocol, effective December 2012) to the Protocol.

The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012.

The Kyoto Protocol implemented the objective of the UNFCCC to reduce the onset of global warming by reducing greenhouse gas concentrations in the atmosphere to "a level that would prevent dangerous anthropogenic interference with the climate system" (Article 2). The Kyoto Protocol applies to the six greenhouse gases listed in Annex A: Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Hydrofluorocarbons (HFCs) Perfluorocarbons (PFCs) and Sulphur hexafluoride (SF₆).

Q.2) Consider the following statements with respect to 'Common but Differentiated Responsibilities and Respective Capabilities (CBDR–RC)'

1. It acknowledges the different capabilities and differing responsibilities of individual countries in addressing climate change.

2. The principle of CBDR–RC is enshrined in the 1992 UNFCCC treaty

Select the correct statements

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

Q.2) Solution (c)

Common But Differentiated Responsibilities (CBDR) was formalized in United Nations Framework Convention on Climate Change (UNFCCC) of Earth Summit in Rio de Janeiro, 1992.. It was the first international legal instrument to address climate change and the most comprehensive international attempt to address negative impacts to global environment. CBDR principle acknowledges all states have shared obligation to address environmental destruction but denies equal responsibility of all states with regard to environmental protection.

Q.3) Which of the following cities are listed under UNESCO Creative Cities Network (UCCN)?

- 1. Jaipur
- 2. Chennai
- 3. Lucknow

Select the correct code:

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

Q.3) Solution (a)

Chennai (Music) is the third Indian city on the list of UNESCO Creative Cities list after Varanasi was recognized as City of Music, Jaipur - City of Crafts and Folk Art.

Q.4) '3C 273', was recently in news. What is it?

- a) A particular strain of rotavirus
- b) A Quasar
- c) A type of Cardiac stem cell therapy
- d) A composite made of phosphorene and silicon nanoparticles

Q.4) Solution (b)

3C 273 is a quasar located in the constellation Virgo. It was the first quasar ever to be identified.

Source: <https://www.pressreader.com/india/the-hindu/20181202/282209421921789>

Q.5) Titu Mir led the

- a) Wahabi Movement
- b) Faraizi Movement
- c) Narkelberia uprising
- d) Mappila uprising

Q.5) Solution (c)

Titu Mir

- Peasant leader who led the Narkelberia Uprising in 1831 against zamindars and British colonial authorities
- The Narkelberia uprising is often considered as the first armed peasant uprising against the British.
- He constructed a fort of bamboo at Narkelberia and declared independence from the British administration.
- He also fought against Hindu landlords who imposed beard-tax on the Farizis.
- The Faraizi Movement was founded in 1818 by Haji Shariatullah to give up un-Islamic practices and act upon their duties as Muslims. The movement protected the rights of tenants.

Q.6) 'World Development Report (WDR) 2019' is released by

- a) World Bank
- b) World Economic Forum
- c) World Trade Organisation
- d) None of the above

Q.6) Solution (a)

The World Development Report (WDR) 2019: The Changing Nature of Work studies how the nature of work is changing as a result of advances in technology today.

Source: <https://www.livemint.com/Opinion/LNsiuA5wimGW5NmZoGLXql/Opinion--The-need-for-reforms-in-the-education-sector.html>

Q.7) The Programme for International Student Assessment (PISA) is a triennial international survey which aims to evaluate education systems worldwide by testing the skills and knowledge of 15-year-old students. It is conducted by

- a) United Nations Organization for Education, Science and Culture
- b) World Economic Forum
- c) Etudes Sans Frontières International
- d) Organisation for Economic Co-operation and Development

Q.7) Solution (d)

PISA

- The Programme for International Student Assessment (PISA) is a worldwide study by the Organisation for Economic Co-operation and Development (OECD) in member and non-member nations intended to evaluate educational systems by measuring 15-year-old school pupils' scholastic performance on mathematics, science, and reading.
- It was first performed in 2000 and then repeated every three years.
- Its aim is to provide comparable data with a view to enabling countries to improve their education policies and outcomes. It measures problem solving and cognition in daily life.

Source: <https://www.livemint.com/Opinion/LNsiuA5wimGW5NmZoGLXql/Opinion--The-need-for-reforms-in-the-education-sector.html>

Q.8) Consider the following statements

1. 'Digital Sky Platform' is an online IT platform developed for handling Unmanned Aerial Operator's Permit (UAOP) and Unique Identification Numbers (UIN) applications, permission to fly drones in India.
2. UIN is unique identification number issued by DGCA for a particular Remotely Piloted Aerial Systems (RPAS) except for Nano-drones

Select the correct statements

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

Q.8) Solution (c)

Digital Sky Platform

- It is an online IT platform developed for handling UIN, UAOP applications, permission to fly drones in India. The link shall be available in Homepage of DGCA website www.dgca.nic.in, and it will be operational from 1st December, 2018.
- UIN is unique identification number issued by DGCA for a particular RPA (except Nano).

Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=186069>

Q.9) Which of the following authorities are involved in aspects of operation of civil remotely piloted aircraft system?

1. Ministry of Home Affairs
2. Ministry of Defence
3. Indian Air Force

Select the correct code:

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

Q.9) Solution (d)

Roles & responsibilities of govt. stakeholders on various aspects of operation of civil remotely piloted aircraft system

No.	Stakeholder	Responsibility
1.	Directorate General of Civil Aviation	<ul style="list-style-type: none"> • Import clearance • Issuance of UIN • Issuance & renewal of UAOP • Suspension / Cancellation of UIN & UAOP in case of violations of regulations.
2.	Directorate General of Foreign Trade	<ul style="list-style-type: none"> • Import license
3.	Ministry of Home Affairs	<ul style="list-style-type: none"> • Security clearance
4.	Ministry of Defence	<ul style="list-style-type: none"> • Permission for aerial survey/imageries/ videography/ still photography over the restricted/prohibited areas on case-to-case basis
5.	Indian Air Force	<ul style="list-style-type: none"> • Air Defence Clearance • Monitoring of RPA movements in the country
6.	Wireless Planning and Coordination Wing, DoT	<ul style="list-style-type: none"> • Equipment Type Approval (ETA) or License for drone
7.	Bureau of Civil Aviation Security	<ul style="list-style-type: none"> • Approval of Security Programme
8.	Airport Authority of India	<ul style="list-style-type: none"> • Flight Plan Approval • Monitoring of RPA movements in the country
9.	Local Police Office	<ul style="list-style-type: none"> • Enforcement of violators as per applicable IPCs

Source: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=186069>

Read More - <http://dgca.nic.in/cars/RPS-FAQs.pdf>

Q.10) Consider the following statements with respect to 'Heart Attack Rewind'

1. It is launched by World Health Organisation (WHO)
2. It promotes the elimination of industrially produced trans-fat in the food supply.

Select the correct statements

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

Q.10) Solution (b)

Recently, the Food Safety and Standards Authority of India (FSSAI) launched a mass media campaign urging the elimination of industrially produced trans-fat in the food supply. The campaign titled 'Heart Attack Rewind' supports FSSAI's global target of eliminating trans-fat in India by 2022, a year ahead of the global target by the World Health Organisation.

Q.11) Consider the following statements with respect to 'GenBank'

1. It is an open access, annotated collection of all publicly available nucleotide sequences and their protein translations.
2. It is produced and maintained by the National Center for Biotechnology Information (NCBI) as part of the International Nucleotide Sequence Database Collaboration (INSDC).

Select the correct code:

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

Q.11) Solution (c)

The GenBank sequence database is an open access, annotated collection of all publicly available nucleotide sequences and their protein translations. This database is produced and maintained by the National Center for Biotechnology Information (NCBI) as part of the International Nucleotide Sequence Database Collaboration (INSDC). The National Center for Biotechnology Information is a part of the National Institutes of Health in the United States.

GenBank is built by direct submissions from individual laboratories, as well as from bulk submissions from large-scale sequencing centers.

Source: <https://www.thehindu.com/opinion/op-ed/sharing-outbreak-data/article25648741.ece>

Q.12) 'Nassib' is a border crossing between

- a) Syria and Jordan
- b) Jordan and Lebanon

- c) Egypt and Israel
- d) Syria and Lebanon

Q.12) Solution (a)

The Nassib Border Crossing is an international border crossing between Syria and Jordan. It is one of the busiest border crossings in Syria and is situated on the Damascus-Amman international highway near Nassib, Syria. It is the main crossing for Syrian exports to Jordan and the GCC countries.

Q.13) Consider the following statements with respect to 'PARIVESH'

1. It is under the aegis of Ministry of Health and Family Welfare
2. It is concerned with food, education and healthcare of children between the age of 6-14 years

Select the correct statements

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

Q.13) Solution (d)

PARIVESH (Pro-Active and Responsive facilitation by Interactive, Virtuous and Environmental Single-window Hub)

PARIVESH is a Single-Window Integrated Environmental Management System, developed in pursuance of the spirit of 'Digital India' initiated by the Prime Minister and capturing the essence of Minimum Government and Maximum Governance.

Ministry of Environment, Forest and Climate Change

Q.14) 'Hebbagodi Lake' was recently in news. Where is it located?

- a) Hyderabad
- b) Bengaluru
- c) Chennai

d) Kozhikode

Q.14) Solution (b)

Source: <https://timesofindia.indiatimes.com/city/bengaluru/bengaluru-lake-has-indias-largest-floating-island/articleshow/66913568.cms>

Q.15) 'Waziristan Accord' is concerned with which of the following countries?

- a) Iraq
- b) Syria
- c) Pakistan
- d) China

Q.15) Solution (c)

The Waziristan Accord (or North Waziristan Accord) was an agreement between the government of Pakistan and tribals resident in the Waziristan area to mutually cease hostilities in North Waziristan (a district in the Federally Administered Tribal Areas of Pakistan). The agreement was signed on 5 September 2006 in the North Waziristan town of Miranshah. The agreement effectively ended the Waziristan War, fought between the Pakistani military and rebels in the border region with ties to the Taliban and Al-Qaeda.

Waziristan is a mountainous region covering the former FATA agencies of North Waziristan and South Waziristan and now districts of Khyber Pakhtunkhwa province of Pakistan. Waziristan covers some 11,585 square kilometres (4,500 sq mi). The area is mostly populated by ethnic Pashtuns. It is named after the Wazir tribe.

Source: <https://www.thehindu.com/news/international/local-taliban-commander-killed-in-shootout-in-pakistan/article25642302.ece>

Q.16) The nation-wide 'Soil Health Card Scheme' aims at

1. Expanding the cultivable area under irrigation.
2. Enabling the banks to assess the quantum of loans to be granted to farmers on the basis of soil quality.
3. Checking the overuse of fertilizers in farmlands.

Which of the above statements is/are correct?

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

Q.16) Solution (b)

Soil Health Card Scheme has been taken up for the first time in a comprehensive manner across the country. Under the scheme soil health cards are provided to all farmers so as to enable the farmers to apply appropriate recommended dosages of nutrients for crop production and improving soil health and its fertility.

The unique features of SHC scheme are:-

- Collecting soil samples at a grid of 2.5 ha in irrigated area and 10 ha in un-irrigated areas.
- Uniform approach in soil testing adopted for 12 parameters viz. primary nutrients (NPK); secondary nutrient (S); micronutrients (B,Zn, Mn. Fe & Cu); and other (pH, EC & OC) for comprehensiveness.
- GPS enabled soil sampling to create a systematic database and allow monitoring of changes in the soil health over the years.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1554812>

Q.17) 'Peru' is bordered by

- 1. Colombia
- 2. Brazil
- 3. Bolivia
- 4. Venezuela

Select the correct code:

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

Q.17) Solution (a)

It is bordered in the north by Ecuador and Colombia, in the east by Brazil, in the southeast by Bolivia, in the south by Chile, and in the west by the Pacific Ocean.

Q.18) 'Gilets jaunes movement' is associated with which of the following countries?

- a) France
- b) Australia
- c) Hog Kong
- d) Taiwan

Q.18) Solution (a)

The yellow vests movement (French: Mouvement des gilets jaunes, pronounced), also referred to as the yellow jacket movement in English, is a protest movement that began with demonstrations in France and subsequently spread to nearby countries.

Galvanized by rising fuel prices, the high cost of living and claims that a disproportionate burden of the government's tax reforms were falling on the working and middle classes (especially those in rural and peri-urban areas), protesters called for the end of such changes and the resignation of the President of France, Emmanuel Macron.

Source: <https://www.thehindu.com/news/international/france-drops-fuel-tax-as-yellow-vest-anger-persists/article25677805.ece>

Q.19) Consider the following statements with respect to 'ExseedSAT1'

1. It is an open radio transponder that works on ham radio frequencies
2. It is a CubeSat
3. It was launched in space through the Falcon 9 rocket of SpaceX

Select the correct code:

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

Q.19) Solution (d)

The 'Made in India' micro satellite ExseedSAT1, built by a small start-up is the first built in the private sector to go into space.

It was launched through the Falcon 9 rocket of SpaceX.

The satellites of this form are called Cubesats as they are 10 cm across and 1kg weight.

It is an open radio transponder that works on ham radio frequencies.

Source: <https://www.thehindubusinessline.com/news/science/india-made-micro-satellite-to-fly-on-spacex-tonight/article25648064.ece>

Q.20) Who was the author of 'Gathasattasati'

- a) Gautamiputra shatakarani
- b) Hala
- c) Krishnadevaraya
- d) Bana

Q.20) Solution (b)

The Satvahana King Hala was a poet of high order. He composed Gatha Saptasati (700 stories)/ Gathasaptapadi in Prakrti. He was also called as kavi-vatsala or one who has parental affection to the Poets.

All the poems are couplets. The poems mostly have love as a theme.

Q.21) 'Khongjom War' is associated with which of the following states?

- a) Manipur
- b) Mizoram
- c) Assam
- d) Nagaland

Q.21) Solution (a)

Khongjom is the place where the last war of resistance of Anglo Manipur War of 1891 was fought.

The Anglo-Manipur War was an armed conflict between the British Empire and the Kingdom of Manipur. The war lasted between 31 March – 27 April 1891, ending in a British victory.

Q.22) Exercise 'Hand-in-Hand' is a bilateral exercise between India and

- a) China
- b) France
- c) Japan
- d) Sri Lanka

Q.22) Solution (a)

Source: <https://www.financialexpress.com/defence/a-year-after-doklam-standoff-india-china-to-conduct-hand-in-hand-exercises-again/1405869/>

Q.23) Consider the following statements with respect to 'Project Sashakt'

- 1. It was proposed by a panel led by PNB chairman Sunil Mehta
- 2. It seeks to address the bad loans problem in India's banking sector

Select the correct statements

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

Q.23) Solution (c)

Project Sashakt was proposed by a panel led by PNB chairman Sunil Mehta. Bad loans of up to ₹50 crore will be managed at the bank level, with a deadline of 90 days. For bad loans of ₹50-500 crore, banks will enter an inter-creditor agreement, authorizing the lead bank to implement a resolution plan in 180 days, or refer the asset to NCLT. For loans above ₹500 crore, the panel recommended an independent AMC, supported by institutional funding through the AIF. The idea is to help consolidate stressed assets.

Source: <https://www.financialexpress.com/opinion/project-sashakt-this-is-mehta-committee-recommendations-biggest-challenge/1404806/>

Q.24) 'OSIRIS-REx mission' is concerned with

- a) Mars
- b) Bennu
- c) Space Junk
- d) International Space Station

Q.24) Solution (b)

The OSIRIS-REx (Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer) is a NASA asteroid study and sample-return mission. The mission's main goal is to obtain a sample of about 60 grams (2.1 oz) from 101955 Bennu, a carbonaceous near-Earth asteroid, and return the sample to Earth for a detailed analysis.

Source: <https://www.thehindu.com/sci-tech/science/nasas-osiris-rex-spacecraft-is-asteroid-bennus-first-visitor-in-billions-of-years/article25658032.ece>

Q.25) Who of the following called Congress as the party of 'Bengali Bhadrak' i.e. Bengali Elite?

- a) Bal Gangadhar Tilak
- b) Lala Lajpat Rai
- c) Sir Syed Ahmad Khan
- d) Aurobindo Ghosh

Q.25) Solution (c)

Syed Ahmad Khan opposed the congress in its initial phase, and called it an elitist party comprised of only Bengali Brahmins and elites. He urged Muslims to concentrate on education rather than joining Congress (Politics).

Q.26) Consider the following statements with respect to 'SPYDER'

1. It is a surface-to-air missile
2. It is an acquired missile system from Israel
3. It has a strike range of about 15 km in low altitude

Select the correct statements

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

Q.26) Solution (d)

The SPYDER (Surface-to-air PYthon and DERby) is an Israeli short and medium range mobile air defence system developed by Rafael Advanced Defense Systems with assistance from Israel Aerospace Industries (IAI).

'Spyder', an acquired missile system from Israel, is a short-range, quick reaction surface-to-air missile designed to strike an enemy air target within a very short time

The state-of-the-art missile has a strike range of about 15 km in low altitude. However, it is shorter than India's indigenously developed surface-to-air 'Akash' missile, which has a 25 km strike range.

Q.27) Consider the following statements with respect to 'Igla-S missile system'

1. It is Russian man-portable air defence systems (MANPADS) technology
2. It is designed for use against visible aerial targets at short range

Select the correct code:

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

Q.27) Solution (c)

It is latest model of Russian MANPADS (Man-portable air-defense system) technology. It offers superior performance over earlier supplied SA-18 missiles to India.

It is designed for use against visible aerial targets at short range such as tactical aircraft, helicopters, unmanned aerial vehicle (UAVs), cruise missile, head-on or receding, in presence of natural (background) clutter and countermeasures.

Indian Army has picked Russia's Igla-S missile system as choice for its multibillion-dollar contract for man-portable air defence systems (MANPADS).

Q.28) Consider the following system with respect to '[Akash Missile](#)'

1. It is a medium-range ramjet supersonic cruise missile that can be launched from submarine, ships, aircraft, or land.
2. It is a joint venture between the Russia and India

Select the correct code:

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

Q.28) Solution (d)

Akash is a medium-range mobile surface-to-air missile defense system developed by the Defence Research and Development Organisation (DRDO) and produced by Bharat Dynamics Limited (BDL) for Missile Systems and Bharat Electronics (BEL) for other radars, control centers in India.

The missile system can target aircraft up to 30 km away, at altitudes up to 18,000 m.

It has the capability to "neutralise aerial targets like fighter jets, cruise missiles and air-to-surface missiles" as well as ballistic missiles.

It is in operational service with the Indian Army and the Indian Air Force.

Q.29) '[INDRA NAVY](#)' is a bilateral maritime exercise between Indian Navy and

- a) Russian Navy
- b) French Navy
- c) Royal Navy
- d) Japanese Navy

Q.29) Solution (a)

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1555298>

Q.30) Consider the following statements about [Wetland \(Conservation and Management\) Rules, 2017](#)

1. Salt Pans are identified as wetlands in the 2017 rules
2. It does not include artificial wetlands

Select the correct statements

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

Q.30) Solution (d)

A new legal framework for wetlands was passed, the Wetland (Conservation and Management) Rules, 2017, replacing the earlier Rules of 2010.

Supreme Court passed an order directing States to identify wetlands in the country within a stipulated timeframe.

The 2010 and 2017 Rules for wetlands both emphasise that the ecological character of wetlands ought to be maintained for their conservation. 'Ecological character' refers to processes and components which make the wetland a particular, and sometimes unique, ecosystem.

In the 2010 Rules, some related criteria were made explicit, such as natural beauty, ecological sensitivity, genetic diversity, historical value, etc. These have been omitted in the 2017 Rules.

Under the new Rules, no authority to issue directions, which are binding in nature to desist from any activity detrimental to wetland conservation, has been prescribed to State wetland authorities.

Salt pans are an example how one use (of making salt) has trumped the other (of environmental balance). Salt pans as 'wetlands' have been omitted from the new Rules. They were identified as wetlands in the 2010 Rules, as they are often important sites of migratory birds and other forms of biodiversity. The omission in the 2017 Rules suggests that while saltpans do exist as wetlands, they do not require any conservation or ecological balance.

"wetland" means an area of marsh, fen, peatland or water; whether natural or artificial, permanent or temporary.

Read More -

[http://www.moef.nic.in/sites/default/files/Wetlands%20\(C&M\)%20Rules,%202017.pdf](http://www.moef.nic.in/sites/default/files/Wetlands%20(C&M)%20Rules,%202017.pdf)

Q.31) 'Chang'e 4' is a lunar exploration mission that aims to achieve the first soft-landing on the far side of the Moon. It is launched by

- a) India
- b) China
- c) US
- d) Japan

Q.31) Solution (b)

Chang'e 4 is a Chinese lunar exploration mission that aims to achieve the first soft-landing on the far side of the Moon.

Source: <https://economictimes.indiatimes.com/news/science/change-4-in-space-first-china-launches-rover-to-far-side-of-the-moon/the-mission/slideshow/66998670.cms>

Q.32) Consider the following statements with respect to 'VISIONS-2 mission'

1. It aims to explore how the Earth's atmosphere is slowly leaking in to space
2. It is a joint mission by ISRO and NASA

Select the correct code:

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

Q.32) Solution (a)

NASA is set to launch a sounding rocket to get a closer look at the how the Earth's atmosphere is slowly leaking into space.

The VISIONS-2 mission, short for Visualizing Ion Outflow via Neutral Atom Sensing-2

The purpose of the VISualizing Ion Outflow via Neutral atom Sensing-2 (VISIONS-2) missions was to study the nature and extent of low altitude ion outflow (>10 eV) from the cusp. The investigation aims to determine the spatial and temporal variations of ion outflow; the total energetic ion outflow in the remotely sensed volume; and how regions of enhanced ion outflow compare in detail to the locations of field aligned currents, optical auroral emissions, enhanced electric fields, energetic particle precipitation, wave activity, and regions of enhanced/depressed electron density.

The aurora borealis is of keen interest to the VISIONS-2 team, but not just for its otherworldly glow. The aurora play are fundamental drivers in the process of atmospheric escape, whereby planets, including Earth, gradually leak their atmosphere into space.

The aurora are formed when energetic electrons, accelerated in the electric and magnetic fields in near-Earth space, crash into and excite atmospheric gases, which emit bright hues of red, green, and yellow as they relax back to a lower energy state. These unruly electrons also create a cascade of havoc in the process, including driving electric currents that heat the upper atmosphere in splotchy patches.

In some cases, that heating is sufficient to give stray oxygen atoms enough energy to escape.

A sounding rocket makes brief, targeted flights into space before falling back to Earth just a few minutes later.

Sounding rockets are unique among scientific spacecraft for their superior dexterity. They can be carted to remote locations, where they are aimed and shot into short-lived events — like the sudden formation of the aurora borealis — at a moment's notice.

Source: <https://www.firstpost.com/tech/news-analysis/nasas-to-launch-visions-2-mission-on-4-december-sounding-rocket-will-investigate-earths-leaky-atmosphere-5656541.html>

Q.33) Consider the following statements with respect to 'Sivalik Hills'

1. They are a mountain range of the outer Himalayas
2. They are chiefly composed of sandstone and conglomerate rock formations

Select the correct code:

- a) 1 Only
- b) 2 Only

- c) Both 1 and 2
- d) Neither 1 nor 2

Q.33) Solution (c)

The Sivalik Hills, also known as Churia Hills, are a mountain range of the outer Himalayas that stretches from the Indus River about 2,400 km eastwards close to the Brahmaputra. It is 10–50 km wide with an average altitude of 1,500–2,000 m (4,900–6,600 ft). Between the Teesta and Raidāk Rivers in Assam is a gap of about 90 kilometres (56 mi). In some Sanskrit texts, the region is called Manak Parbat. Sivalik literally means 'tresses of Shiva'.

Geologically, the Sivalik Hills belong to the Tertiary deposits of the outer Himalayas. They are chiefly composed of sandstone and conglomerate rock formations, which are the solidified detritus of the Himalayas to their north; they poorly consolidated. The remnant magnetization of siltstones and sandstones indicates that they were deposited 16–5.2 million years ago. In Nepal, the Karnali River exposes the oldest part of the Shivalik Hills.

Q.34) '[Qumran Caves](#)' are located in

- a) Syria
- b) Jordan
- c) Kazakhstan
- d) None of the above

Q.34) Solution (d)

Qumran Caves are a series of caves, some natural, some artificial, found around the archaeological site of Qumran in the Judean Desert of the West Bank. It is in a number of these caves that the Dead Sea Scrolls were discovered. The caves are recognized in Israel as a National Heritage Site.

Q.35) Which of the following countries is not a member of '[Gulf Cooperation Council \(GCC\)](#)'?

- a) Kuwait
- b) Bahrain
- c) Qatar
- d) Iraq

Q.35) Solution (d)

GCC is a regional intergovernmental political and economic union consisting of all Arab states of the Persian Gulf except Iraq. Its member states are Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.

Q.36) Consider the following statements

1. GM foods are within the scope of the [Cartagena Protocol](#) only if they contain LMOs that are capable of transferring or replicating genetic material.
2. [Genetic Engineering Appraisal Committee \(GEAC\)](#) functions in the Ministry of Environment, Forest and Climate Change (MoEF&CC).

Select the correct statements

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

Q.36) Solution (c)

The Cartagena Protocol on Biosafety, an environmental treaty legally binding for its Parties which took effect in 2003, regulates transboundary movements of Living Modified Organisms (LMOs). GM foods are within the scope of the Protocol only if they contain LMOs that are capable of transferring or replicating genetic material. The cornerstone of the Protocol is a requirement that exporters seek consent from importers before the first shipment of LMOs intended for release into the environment.

The Genetic Engineering Appraisal Committee (GEAC) functions in the Ministry of Environment, Forest and Climate Change (MoEF&CC). As per Rules, 1989, it is responsible for appraisal of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle. The committee is also responsible for appraisal of proposals relating to release of genetically engineered (GE) organisms and products into the environment including experimental field trials.

GEAC is chaired by the Special Secretary/Additional Secretary of MoEF&CC and co-chaired by a representative from the Department of Biotechnology (DBT).

Q.37) Consider the following statements with respect to '[Land Acquisition Act, 2013](#)'

1. It replaced the Land Acquisition Act, 1894
2. The scope of the Act includes all land acquisition whether it is done by the Central Government of India, or any State Government of India, except the state of Jammu & Kashmir.
3. The provisions of the Act does not apply to acquisitions under the Railways Act, 1989

Select the correct code:

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

Q.37) Solution (d)

The Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (also Land Acquisition Act, 2013) is an Act of Indian Parliament that regulates land acquisition and lays down the procedure and rules for granting compensation, rehabilitation and resettlement to the affected persons in India. The Act has provisions to provide fair compensation to those whose land is taken away, brings transparency to the process of acquisition of land to set up factories or buildings, infrastructural projects and assures rehabilitation of those affected. The Act establishes regulations for land acquisition as a part of India's massive industrialisation drive driven by public-private partnership. The Act replaced the Land Acquisition Act, 1894, a nearly 120-year-old law enacted during British rule.

The Act aims to establish the law on land acquisition, as well as the rehabilitation and resettlement of those directly affected by the land acquisition in India. The scope of the Act includes all land acquisition whether it is done by the Central Government of India, or any State Government of India, except the state of Jammu & Kashmir.

The Act is applicable when:

- Government acquires land for its own use, hold and control, including land for Public sector undertakings.
- Government acquires land with the ultimate purpose to transfer it for the use of private companies for stated public purpose. The purpose of LARR 2011 includes

public-private-partnership projects, but excludes land acquired for state or national highway projects.

- Government acquires land for immediate and declared use by private companies for public purpose.

The provisions of the Act does not apply to acquisitions under 16 existing legislations including the Special Economic Zones Act, 2005, the Atomic Energy Act, 1962, the Railways Act, 1989, etc.

Source: <https://indianexpress.com/article/cities/ahmedabad/2013-land-acquisition-act-supreme-court-notice-to-gujarat-government-four-other-states-on-amendments-5487279/>

Q.38) 'Noney' was in recently in news. Where is it located?

- a) Mizoram
- b) Manipur
- c) Arunachal Pradesh
- d) Assam

Q.38) Solution (b)

Source: <https://timesofindia.indiatimes.com/city/guwahati/indias-tallest-bridge-pier-built-in-noney/articleshow/67008374.cms>

Q.39) Consider the following statements with respect to 'Council on Energy, Environment and Water (CCEW)'

1. It was launched during the Paris Climate Summit in 2015
2. It is a brainchild of India and China

Select the correct statements

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

Q.39) Solution (d)

The Council on Energy, Environment and Water, commonly known as CEEW, is a Delhi-based not-for-profit policy research institution. Some of CEEW's research areas include resource efficiency and security; water resources; renewable energy; sustainability finance; energy-trade-climate linkages; integrated energy, environment and water plans; and climate geoengineering governance. The think-tank advises the Indian government.

Source: <https://www.livemint.com/Home-Page/4OirJQJQ4wDeA9rrK2eqDO/Opinion--Structural-reforms-for-decarbonising-India.html>

Q.40) Edaphic factors are included in

- a) Abiotic components
- b) Biotic components
- c) Consumers
- d) Producers

Q.40) Solution (a)

Edaphic factors are those which are related to soil which includes soil profile, porosity, soil moisture, soil air, soil organisms etc. It is a part of abiotic components.

Q.41) Consider the following statements with respect to 'Chiller Star Labelling Program'

1. It has been formulated by [Bureau of Energy Efficiency \(BEE\)](#)
2. It envisages providing rating in terms of its energy performance

Select the correct statements

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

Q.41) Solution (c)

The Chiller Star Labelling Program has been launched by Bureau of Energy Efficiency (BEE) to encourage the deployment of Energy Efficient chiller systems. The program envisages

providing star rating in terms of its energy performance. Initially, the program is launched on voluntary basis and will be valid upto 31' December 2020.

LED and inverter AC have been notified under mandatory regime. Star labelling program for Variable speed Air Conditioners and LED lamps were notified in mandatory domain during the year 2017. The implementation of the same has begun w.e.f 1st January, 2018.

Star labelling program saved energy worth INR 22,500 crore during the year 2017-18

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1555605>

Q.42) PRAAPTI App and web portal is associated with

- a) Power Purchases
- b) Coal Block Allocation
- c) Road Safety
- d) Trafficking of Women and Children

Q.42) Solution (a)

A Web portal and an App namely PRAAPTI (Payment Ratification And Analysis in Power procurement for bringing Transparency in Invoicing of generators) has been developed to bring transparency in power purchase transactions between Generators and Discoms.

The App and Web Portal will capture the Invoicing and payment data for various long term PPAs from the Generators. This will help the stakeholders in getting month-wise and legacy data on outstanding amounts of Discoms against power purchase.

The app will also allow users to know the details related to the payments made by the Discoms to the power generation company and when they were made.

PRAAPTI will also enable the consumers to evaluate financial performance of their Discoms in terms of payments being made to the generation companies.

The Portal would also help DISCOMs and GENCOs to reconcile their outstanding payments.

The portal would facilitate relative assessment of various State DISCOMs on "Ease of making payments" to various Generation Companies, and will also help make transactions in the power Sector more transparent.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1555605>

Q.43) Which one of the following is a purpose of 'UDAY', a scheme of the Government?

- a) Providing for financial turnaround and revival of power distribution companies
- b) Providing technical and financial assistance to start-up entrepreneurs in the field of renewable sources of energy
- c) Providing electricity to every household in the country by 2020
- d) Replacing the coal-based power plants with natural gas, nuclear, solar, wind and tidal power plants over a period of time

Q.43) Solution (a)

It is a scheme for the financial turnaround of Power distribution companies (DISCOMs) was approved by the Government of India with an objective to improve the operational and financial efficiency of the state DISCOMS.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1555605>

Q.44) Consider the following statements about Pradhan Mantri Sahaj Bijli Har Ghar Yojana –“Saubhagya”

- 1. Poor households identified using Socio Economic and Caste Census (SECC) 2011 would be provided with free electricity
- 2. Rural Electrification Corporation Limited (REC) is the nodal agency for the operationalisation of the scheme
- 3. Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Integrated Power Development Scheme (IPDS) have been subsumed under the 'Saubhagya' scheme

Select the correct statements

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

Q.44) Solution (b)

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

Rural Electrification Corporation Limited (REC) is the nodal agency for the operationalisation of the scheme throughout the country.

Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) envisage creation of basic electricity infrastructure in villages / habitations, strengthening & augmentation of existing infrastructure, metering of existing feeders / distribution transformers / consumers to improve quality and reliability of power supply in rural areas. Besides this, last mile connectivity and free electricity connections are also provided to BPL households only identified by the States as per their list. However, in villages which are electrified in past for a long period, many households do not have electricity connections for many reasons. Some of the really poor households do not have BPL cards but these households are not capable of paying applicable initial connection charges. There is also lack of awareness as to how to get connection or taking connection is not an easy task for illiterate people. There may not be electricity pole nearby and the cost of erection of additional pole, conductor is also chargeable from the households for obtaining a connection.

Similarly in urban areas, Integrated Power Development Scheme (IPDS) provides for creation of necessary infrastructure to provide electricity access but some households are not yet connected mainly on account of their economic condition as they are not capable of paying the initial connection charges.

Therefore, Saubhagya has been launched to plug such gaps and comprehensively address the issues of entry barrier, last mile connectivity and release of electricity connections to all un-electrified households in rural and urban areas.

Q.45) Consider the following statements with respect to 'Integrated Power Development Scheme (IPDS)'

1. It focuses on feeder separation (households & agricultural)
2. It focuses on strengthening of sub-transmission & distribution infrastructure including metering at all levels in rural areas

Select the correct statements

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

Q.45) Solution (d)

Integrated Power Development Scheme" (IPDS) with the objectives of:

- Strengthening of sub-transmission and distribution network in the urban areas;
- Metering of distribution transformers /feeders / consumers in the urban areas.
- IT enablement of distribution sector and strengthening of distribution network under R-APDRP for 12th and 13th Plans by carrying forward the approved outlay for R-APDRP to IPDS.
- Schemes for Enterprise Resource Planning (ERP) and IT enablement of balance urban towns are also included under IPDS. Scope of IT enablement has been extended to all 4041 towns as per Census 2011.

The scheme will help in reduction in AT&C losses, establishment of IT enabled energy accounting / auditing system, improvement in billed energy based on metered consumption and improvement in collection efficiency.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1555605>

Q.46) Consider the following statements with respect to ‘[Shram Suvidha Portal](#)’

1. It is developed by the Ministry of Labour & Employment
2. It was developed to bring transparency and accountability in enforcement of labour laws and ease complexity of compliance

Select the correct statements

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

Q.46) Solution (c)

Shram Suvidha Portal: The Ministry of Labour & Employment has developed a unified Web Portal ‘Shram Suvidha Portal’, to bring transparency and accountability in enforcement of labour laws and ease complexity of compliance. The facilities available to establishments on Shram Suvidha Portal as on today include:

- Transparent Labour Inspection Scheme through computerized system based on risk based criteria and uploading the inspection reports within 72 hours by the Labour inspectors. The time period for uploading the reports has been reduced to 48 hrs since 05.11.2018.

- Common Registration for ESIC and EPFO,
- Common ECR for ESIC & EPFO,
- Single Annual online return for 8 Central laws and 3 returns under the Mines Act, 1952.
- Online licensing under the Contract Labour Regulation and Abolition Act, 1970 and the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 besides the Labour Inspection Scheme for enforcement agencies.
- Online Registration by Chief Labour Commissioner (Central) under three Acts i.e the Contract Labour Regulation and Abolition Act, 1970, the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 and The Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996.

Q.47) Consider the following statements with respect to '[Pradhan Mantri Rojgar Protsahan Yojana](#) (PMRPY)'

1. It incentivises employers for generation of new employment, where Government of India will be paying the full employer's contribution towards EPF & EPS both
2. It is targeted for employees earning wages less than Rs 5,000/- per month

Select the correct statements

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

Q.47) Solution (a)

The Pradhan Mantri Rojgar Protsahan Yojana(PMRPY) Plan Scheme has been designed to incentivise employers for generation of new employment, where Government of India will be paying the full employer's contribution towards EPF & EPS both w.e.f 01.04.2018 (earlier benefit was applicable for employer's contribution towards EPS only) for the new employment. This scheme has a dual benefit, where, on the one hand, the employer is incentivised for increasing the employment base of workers in the establishment, and on the other hand, a large number of workers will find jobs in such establishments. A direct benefit is that these workers will have access to social security benefits of the organized sector

Under Pradhan Mantri Rojgar Protsahan Yojana (PMRPY), the Government of India is now paying full employer's contribution (EPF and EPS both) with effect from 1st April, 2018 for a period of three years to the new employees as well as to the existing beneficiaries for their remaining period of three years. Before 1st April, 2018, the Government was paying under PMRPY only the EPS share (8.33% of the wages) out of the total employer's share of contribution (12% of the wages).

The PMRPY Scheme is targeted for employees earning wages less than Rs 15,000/- per month.

Q.48) The '[HELP](#)' and '[OLAP](#)' Policy is associated with

- a) Exploration and production of conventional as well as non-conventional Hydrocarbon resources
- b) Hybrid and Electric Vehicles
- c) Eco-Sensitive Zones and Environmental Impact Assessment
- d) Women Safety

Q.48) Solution (a)

Hydrocarbon Exploration and Licensing Policy (HELP)/ Open Acreage Licensing Policy (OALP) – This is a paradigm shift from Production Sharing Contract (PSC) regime to Revenue Sharing Contract (RSC) regime based on the principle of ease of doing business. It provides for single License for exploration and production of conventional as well as non-conventional Hydrocarbon resources; Pricing and Marketing Freedom; reduced rate of royalty for offshore blocks, Open Acreage Licensing Policy that means option to select the exploration blocks without waiting for formal bid round. Expression of Interest can be submitted round the year and Bidding is carried out every 6 months.

Q.49) Consider the following statements with respect to '[Pradhan Mantri Ujjwala Yojana \(PMUY\)](#)'

1. It provides deposit-free LPG connections to women belonging to the Below Poverty Line (BPL) families
2. It is aimed at rationalizing LPG subsidies based on approach to cut subsidy leakages, but not subsidies themselves

Select the correct statements

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

Q.49) Solution (a)

In order to provide clean cooking fuel LPG to BPL households in the country, the Government has launched “Pradhan Mantri Ujjwala Yojana”(PMUY) scheme to provide to provide 5 Crore deposit-free LPG connections to women belonging to the Below Poverty Line (BPL) families, which were subsequently increased to 8 Crore with a budgetary allocation of Rs. 12800 crore. Beneficiaries are identified through Socio Economic Caste Census (SECC) list and in case the names are not appearing in the SECC list, beneficiaries are identified from categories i.e. SC/STs households, beneficiaries of Pradhan Mantri Awas Yojana (PMAY (Gramin)), Antodaya Anna Yojana (AAY), Forest dwellers, Most backward Classes (MBC), Tea & Ex-Tea Garden Tribes and people residing in Islands/ river islands.

Q.50) Consider the following statements with respect to ‘Advanced Motor Fuels (AMF)’

1. It is one of the International Energy Agency’s (IEA) transportation related Technology Collaboration Programmes
2. It provides an international platform for co-operation to promote cleaner and more energy efficient fuels and vehicle technologies

Select the correct statements

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

Q.50) Solution (c)

Ministry of Petroleum and Natural Gas joined Advanced Motor Fuels (AMF), a Technology collaboration programme (TCP) under International Energy Agency (IEA) as Member on 9.5.2018. It is an international platform to promote collaboration in R&D for developing advanced motor fuels / alternate fuels with greater focus on improving fuel efficiency and reduced GHG emissions.

Q.51) Consider the following statements about 'Annavitran Portal'

1. It has been implemented to display electronic transactions made through ePoS devices for distribution of subsidized foodgrains to beneficiaries.
2. It is under the Ministry of Consumer Affairs, Food & Public Distribution

Select the correct statements

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

Q.51) Solution (c)

Annavitran Portal (www.annavitran.nic.in) has been implemented to display electronic transactions made through ePoS devices for distribution of subsidized foodgrains to beneficiaries. This portal also shows all India picture of Aadhaar authentication of beneficiaries besides allocated and distributed quantity of foodgrains up to district level.

Q.52) Consider the following statements with respect to 'Integrated Management of Public Distribution System (IM-PDS)'

1. It is aimed at de-duplication of ration cards/beneficiary
2. It is a central sector scheme

Select the correct statements

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

Q.52) Solution (c)

A new central sector scheme namely "Integrated Management of Public Distribution System (IM-PDS)" has been approved for implementation during 2018-19 and 2019-20. The key objectives of the scheme are to integrate PDS system/portals of States/UTs with Central System/portals, introduction of National Portability, and de-duplication of ration cards/beneficiary, etc.

The new scheme will bring more transparency and efficiency in distribution of foodgrains as it will improve the mechanism to identify fake/duplicate ration cards and provide the option to PDS beneficiaries to lift their entitled foodgrains from the Fair Price Shops of their choice at the national level.

Q.53) Consider the following statements about 'e-FRRO'

1. It provides visa related services to foreigners
2. It is launched by Ministry of External Affairs

Select the correct code:

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

Q.53) Solution (a)

'e-FRRO' (e-Foreigners Regional Registration Office). e-FRRO module provides 27 Visa related services to foreigners. It has proved to be very successful and has obviated the need for foreigners to visit FRRO Offices for extending their stay, change of Visa status etc.

It is launched by Ministry of Home Affairs

e-FRRO is designed, developed and hosted by National Informatics Centre, Ministry of Electronics & Information Technology.

Q.54) The term "Mehram" with respect to Haj Pilgrimage means

- a) Nocturnal Travel
- b) Male Companion
- c) Obligatory Religious Prayer
- d) Practice from abstaining from food and drink

Q.54) Solution (b)

A committee formed by the Ministry of Minority Affairs (MoMA) to look into the Haj policy recommended that women above 45 years, unaccompanied by a man, should be allowed on Haj pilgrimage in groups of four, provided their school of thought permits.

Until 2017, mehram, an unmarried kin, as the male escort of women Haj travellers remained an essential feature of India's policy.

Q.55) Consider the following statements with respect to [‘Pradhan mantri Jan Vikas Karykram’](#)

1. It is aimed at socio-economic-educational empowerment of Minorities and other weaker sections of the society
2. 100 Minority Concentration Districts have been selected under the scheme

Select the correct statements

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

Q.55) Solution (a)

Renaming and restructuring of Multi-sectoral Development Programme (MsDP) as Pradhan Mantri Jan Vikas Karyakram (PMJVK).

The restructured programme would provide better socio economic infrastructure facilities to the minority communities particularly in the field of education, health & skill development as compared to the present situation, which would further lead to lessening of the gap between the national average and the minority communities with regard to backwardness parameters. The flexibility introduced in the programme will enable addressing important issues that would result in speedier implementation leading to greater inclusiveness of the minority communities.

The criteria for identification of Minority Concentration Towns and Clusters of Villages have been rationalized by lowering the population percentage criteria of Minority Communities and fulfilment of backwardness parameters in the following manners:-

Earlier only those Towns which were found backward in terms of both in Basic Amenities and Socio-economic parameters were taken up as MCTs. Now, the Towns which were found backward in either or both of the criteria have been taken up as MCT.

Earlier only those Cluster of Villages which were having at-least 50% population of Minority Community were taken. Now the population criteria has been lowered to 25%.

These rationalization of criteria would facilitate the inclusive growth of communities and social harmony

The area to be covered under PMJVK would be 57% more as compared to the existing MsDP.

The MsDP covered 196 district of the country whereas PMJVK will cover 308 districts of the country.

Q.56) 'Beresheet Spacecraft' is being developed by

- a) China
- b) Israel
- c) India
- d) USA

Q.56) Solution (b)

It is a spacecraft destined for the moon. It will be the first mission of its kind since 2013 and, if it is successful, Israel will be the fourth country to carry out a controlled "soft" landing of an unmanned vessel on the moon.

The craft, called Beresheet, Hebrew for Genesis, is shaped like a round table with four carbon-fibre legs, stands about 1.5 meters tall and weighs 585 kg (1,290 lb) - with fuel accounting for two-thirds of that weight.

Source: <https://www.pressreader.com/india/the-hindu/20181218/282492889796821>

Q.57) Consider the following statements with respect to 'Eklavya Model Residential Schools'

1. As per the budget 2018-19, every block with more than 50% ST population and at least 20,000 tribal persons, will have an Eklavya Model Residential School by the year 2022
2. It will be affiliated to the Central Boards of Secondary Education only

Select the correct code:

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

Q.57) Solution (a)

The objective of EMRS is to provide quality middle and high level education to Scheduled Tribe (ST) students in remote areas, not only to enable them to avail of reservation in high and professional educational courses and as jobs in government and public and private sectors but also to have access to the best opportunities in education at par with the non ST population. This would be achieved by:

- Comprehensive physical, mental and socially relevant development of all students enrolled in each and every EMRS. Students will be empowered to be change agent, beginning in their school, in their homes, in their village and finally in a larger context.
- Focus differentially on the educational support to be made available to those in Standards XI and XII, and those in standards VI to X, so that their distinctive needs can be met.
- Support the annual running expenses in a manner that offers reasonable remuneration to the staff and upkeep of the facilities.
- Support the construction of infrastructure that provides education, physical, environmental and cultural needs of student life.

The EMRSs may be affiliated either to the State or Central Boards of Secondary Education as desired fit by the State Governments/UT Administration.

The norms and standards for a school class VI to class VIII in respect of the number of teachers to be appointed, as provided in the Schedule to the Right of Children to Free and Compulsory Education Act 2009 shall be strictly followed.

As per the budget 2018-19, every block with more than 50% ST population and at least 20,000 tribal persons, will have an Eklavya Model Residential School by the year 2022.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1556178>

Q.58) Consider the following statements with respect to 'IMPRESS Scheme'

1. It aims to encourage social science research in policy relevant areas so as to provide vital inputs in policy-formulation, implementation and evaluation and is implemented by the Indian Council of Social Science Research
2. It is an initiative of the Ministry of Human Resource Development

Select the correct code:

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

Q.58) Solution (c)

Impactful Policy Research in Social Science (IMPRESS) aims to encourage social science research in policy relevant areas so as to provide vital inputs in policy-formulation, implementation and evaluation.

The IMPRESS is an initiative of the Ministry of Human Resource Development, Government of India and is being implemented by the Indian Council of Social Science Research. The scheme was sanctioned in August 2018 at a total cost of Rs.414 Cr for implementation up to 31.3.2021.

Objectives

- To identify and fund research proposals in social sciences with maximum impact on the governance and society.
- To focus research on (11) broad thematic areas such as : State and Democracy, Urban transformation, Media, Culture and Society, Employment, Skills and Rural transformation, Governance, Innovation and Public Policy, Growth, Macro-trade and Economic Policy, Agriculture and Rural Development, Health and Environment, Science and Education, Social Media and Technology, Politics, Law and Economics. The Sub-Theme areas will be decided on the basis of Expert Groups' advice before notifying the scheme and calling for applications.
- To ensure selection of projects through a transparent, competitive process on online mode.
- To provide opportunity for social science researchers in any institution in the country, including all Universities (Central and State), private institutions with 12(B) status conferred by UGC.

Eligibility

- All Government funded institutions including Universities (central and state) , private institutions with UGC 12(b) status and ICSSR Research Institutes are eligible to apply.
- The Project Director should be a regular employee, possessing Ph.D. degree and have an interest in high quality research which may be evidenced by past studies, publications and academic background. In case the project has co-Director(s), they should have proven research interest.
- Retired faculties with proven research interests can also apply under the scheme but they would be required to get themselves affiliated to any of the research institutions mentioned in clause Point 1.
- Individual scholars can apply for maximum two projects at a time. However, in case both projects are selected, the applicant can choose only one project at level 3 . Institutes having good research infrastructure and resources may apply for a number of proposals.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1556254>

Q.59) Consider the following statements with respect to '[RISE Scheme](#)'

1. Under the scheme, selected school children from North Eastern States are brought in close contact with the Indian Institute of Technology (IITs), Indian Institutes of Science Education and Research (IISERs) and National Institute of Advanced Studies (NIAS) during the vacation period to motivate them to pursue science, technology, engineering and mathematics and to facilitate internship opportunities for the engineering college students in various institutes of national importance.
2. Under the scheme, scholarship is provided to the students having parental income upto Rs. 4.5 lakh per annum, from the North East Region for pursuing general degree, technical and professional degree courses including medical and para-medical courses.

Which of the following statements is/are correct?

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

Q.59) Solution (d)

RISE stands for Revitalising of Infrastructure and Systems in Education.

To step up investments in research and related infrastructure in premier educational institutions, including health institutions

Government has approved “Revitalising Infrastructure and Systems in Education by 2022”, as per which the scope of institutions to be funded through Higher Education Financing Agency (HEFA) has been enlarged to encompass School Education and Medical Education institutions, apart from Higher Education. The total authorized equity capital of HEFA has been raised to Rs.10,000 crore, with the facility to leverage additional resources from the market, based on requirement. A total Government equity of Rs. 6,000 Crore, has been approved.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1556254>

Q.60) Which of the following statements with respect to ‘TARE Scheme’ is/are correct?

- a) It offers opportunities for up to 100 PhD students admitted in the Indian institutions for gaining exposure and training in overseas universities / institutions of repute and areas of importance to country for period up to 12 months during their doctoral research.
- b) It is aimed to provide fixed grant support to active researchers with good credentials in Mathematical Sciences.
- c) It aims at supporting proposals that are conceptually new and risky, and if successful, expected to have a paradigm shifting influence on the S&T.
- d) It aims to tap the latent potential of faculty working in state universities, colleges and private academic institutions who are well trained but have difficulty in pursuing their research due to varied reasons including lack of facilities, funding and guidance.

Q.60) Solution (d)

Teacher Associate ship for Research Excellence (TARE)

- The Scheme aims to tap the latent potential of faculty working in state universities, colleges and private academic institutions who are well trained but have difficulty in pursuing their research due to varied reasons including lack of facilities, funding and guidance.
- This scheme facilitates mobility of such faculty members to carryout research in a well-established public funded institution such as IITs, IISc, IISERS and other National Institutions (NITs, CSIR, ICAR, ICMR labs, etc) and Central Universities located preferably nearer to the institution where the faculty member is working. Up to 500 TAs will be supported under this scheme.

Q.61) Where is 'Viper Island' located?

- a) Off Goa's Coast
- b) Bay of Bengal
- c) Between India and Sri Lanka
- d) Andaman and Nicobar Islands

Q.61) Solution (d)

Viper Island is an island of the Andaman Islands. It belongs to the South Andaman district of the Andaman and Nicobar Islands.

DO YOU KNOW?

- Article 338A (9) of the Constitution of India mandates that Union and every State Government should consult the Commission on all major policy matters affecting Scheduled Tribes.

Important for Prelims 2019

- Restricted Area Permit regime
- Andamanese, Jarawas, Sentinelese, Onges and Sompens

Q.62) Consider the following statements with respect to '[PRASAD Scheme](#)'

1. It is aimed at preserving and revitalizing the soul and unique character of the heritage cities in India
2. It is under the aegis of Ministry of Urban Development

Select the correct statements

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

Q.62) Solution (d)

PRASAD Scheme of Ministry of Tourism

Under the scheme 'Prasad', the Ministry of Tourism provides Central Financial Assistance (CFA) to State Governments/Union Territory Administrations for development and beautification of the identified pilgrimage destinations.

Important for Prelims 2019

- HRIDAY
- Swadesh Darshan & Circuits therein

Q.63) Which of the following statements is/are correct?

1. India is currently the world's largest producer of direct reduced iron (DRI)/sponge iron.
2. India is currently the world's largest producers of crude steel
3. India is the largest consumers of finished steel in the world

Select the correct code:

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

Q.63) Solution (c)

India is currently the world's largest producer of direct reduced iron(DRI)/sponge iron.

India is currently the world's 3rd largest producers of crude steel in 2017 and already has become 2nd largest producers in the period Jan to Oct 2018.

The country is 3rd largest consumers of finished steel in world in 2017 and expected to be 2nd largest consumers soon.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1556504>

Q.64) Consider the following statements with respect to 'Graphene oxide'

1. It is used in energy storage devices
2. It is used in desalination of water
3. It is not toxic and hazardous for the environment

Select the correct code:

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

Q.64) Solution (d)

Graphene oxide is extensively used in energy storage devices, polymer composites, desalination of water, conducting ink, aqueous lubrication, nano-coolant, additive for phase change materials, etc. Graphene oxide is not toxic and hazardous for the environment. The cost of commercially available graphene oxide is very high and scaled-up production of graphene oxide at reasonable price without compromising the quality is a challenging task. The technology developed by CSIR demonstrates the production of graphene oxide starting from natural flake graphite. The Technology has been transferred to one Indian Industry for commercialization for a period of 5 years.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1556479>

Q.65) 'NeVA Project' is associated with

- a) Indigenous Missile Development
- b) Scorpène-class submarines
- c) Make in India
- d) None of the above

Q.65) Solution (d)

National e-Vidhan Application (NeVA) Project

- NeVA aims to bring all the legislatures of the country together, in one platform thereby creating a massive data depository without having the complexity of multiple applications
- e-Vidhan is a Mission Mode Project (MMP) included in Digital India Programme and Ministry of Parliamentary Affairs (MoPA) is the 'Nodal Ministry' for its implementation in all the 31 States/ UTs with Legislatures.
- The total project cost of the project is over 738 crores and funding of NeVA is on the pattern of Central Sponsored Scheme i.e. 60:40; and 90:10 for North East & hilly

States and 100% for UTs. The funding for e-Vidhan is provided by the MoPA and technical support by Ministry of Electronics and Information Technology (MeitY). In order to promote the rolling out NeVA, the MoPA has consulted all State Governments.

Q.66) Consider the following statements with respect to '[National Medicinal Plants Board \(NMPB\)](#)'

1. It is set up under the Ministry of AYUSH
2. The primary mandate of NMPB is to develop an appropriate mechanism for coordination between various ministries/ departments/ organization and implementation of support policies for overall growth of medicinal plants sector at the Central, State and International level

Select the correct statements

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

Q.66) Solution (c)

In order to promote medicinal plants sector, Government of India set up National Medicinal Plants Board (NMPB) on 24th November 2000. Currently the board is working under the Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha & Homoeopathy), Government of India. The primary mandate of NMPB is to develop an appropriate mechanism for coordination between various ministries/ departments/ organization and implementation of support policies/programs for overall (conservation, cultivation, trade and export) growth of medicinal plants sector both at the Central /State and International level.

To ensure availability and regular supply of raw material of medicinal plants for AYUSH drugs, the National Medicinal Plants Board (NMPB) under its "Central Sector Scheme on Conservation, Development and Sustainable Management of Medicinal Plants" is augmenting the medicinal plants resources in the wild and also promoting their large scale cultivation in farmers' field under Centrally Sponsored Scheme of National AYUSH Mission (NAM). The major achievements of NMPB are as under:

- NMPB in collaboration with National Remote Sensing Centre, Indian Space Research Organization (ISRO) developed e-Bhuvan herbs mobile app. for geo-tagging and monitoring of the organizations funded by NMPB for carrying out various activities related to medicinal plants.
- NMPB has collaborated with National Remote Sensing Centre (NRSC), Indian Space Research Organisation (ISRO) to implement space based tools in monitoring & strategic decision making in the field of medicinal Plants.

Q.67) Which of the following are correctly matched?

1. Ayush-64 – Malaria
2. Ayush-82 - Type –II Diabetes
3. Ayush SG - Rheumatoid arthritis

Select the correct code:

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

Q.67) Solution (d)

All are correctly matched.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1556595>

Q.68) Consider the following statements with respect to 'Non-Lapsable Central Pool of Resources (NLCPR)'

1. It ensure speedy development of infrastructure in the North Eastern Region by increasing the flow of budgetary financing for new infrastructure projects
2. The annual allocation to Ministry of Housing and Urban Affairs under NLCPR scheme is determined through the normal budgetary process of the Government of India

Select the correct code:

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

- d) Neither 1 nor 2

Q.68) Solution (a)

Non-lapsable Central Pool of Resources scheme is to ensure speedy development of infrastructure in the North Eastern Region by increasing the flow of budgetary financing for new infrastructure projects/schemes in the Region. Both physical and social infrastructure sectors such as Irrigation and Flood Control, Power, Roads and Bridges, Education, Health, Water Supply and Sanitation - are considered for providing support under the Central Pool, with projects in physical infrastructure sector receiving priority. Funds from the Central Pool can be released for State sector as well as Central sector projects/schemes. However the funds available under the Central Pool are not meant to supplement the normal Plan programmes either of the State Governments or Union Ministries/ Departments/ Agencies. This dataset on NLCPR shows the status of various projects undertaken in North Eastern States and being updated on monthly basis.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1556699>

Q.69) Consider the following statements with respect to 'GOBARdhan scheme'

1. It is aimed at keeping villages clean while increasing the income of farmers and cattle owners by promoting local entrepreneurs to convert cattle dung, and other organic resources, to biogas and organic manure.
2. It is launched by Ministry of Rural Development

Select the correct code:

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

Q.69) Solution (a)

Ministry of Drinking Water & Sanitation launched the Galvanising Organic Bio-Agro Resource dhan or "GOBARdhan" scheme on 30th April 2018, at Karnal, Haryana. The scheme is aimed at keeping villages clean while increasing the income of farmers and cattle owners by promoting local entrepreneurs to convert cattle dung, and other organic resources, to biogas and organic manure.

Q.70) Consider the following statements with respect to 'Swajal'

1. It is launched by the Ministry of Water Resources, River Development and Ganga Rejuvenation
2. It is a demand driven and community centred program to provide sustainable access to drinking water to people in rural areas.

Select the correct code:

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

Q.70) Solution (b)

Ministry of Drinking Water and Sanitation launched Swajal, a community demand driven, decentralized, single village, preferably solar powered, mini PWS programme for the 117 aspirational districts identified by NITI Aayog. Gram Panchayats in partnership with rural communities and State sectoral agencies would be involved in the execution of the scheme and also operate and maintain the scheme. The programme would also sustain ODF status.

Q.71) Consider the following statements with respect to 'National Financial Reporting Authority (NFRA)'

1. It will review the quality of corporate financial reporting in certain classes and subclasses of companies and take disciplinary action against auditors/audit firms for not discharging their statutory duties with due diligence
2. It constituted under the provisions of the Companies Act, 2013

Select the correct code:

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

Q.71) Solution (c)

In the wake of accounting scams and frauds in the corporate sector, National Financial Reporting authority (NFRA) was notified as an independent regulator for auditing profession which is one of the key changes brought in by the Companies Act 2013. NFRA will review the quality of corporate financial reporting in certain classes and subclasses of companies and take disciplinary action against auditors/audit firms for not discharging their statutory duties with due diligence. The decision is expected to result in higher foreign/domestic investments, acceleration of economic growth while supporting greater globalization of business by conforming to international standards and assisting in the evolution of audit profession. The jurisdiction of NFRA for investigation of Chartered Accountants and their firms under section 132 of the Act would extend to listed companies and large unlisted public companies, the threshold for which shall be prescribed in the rules.

Q.72) 'Asiatic Lion Conservation Project' is launched by

- a) Ministry of Environment, Forest and Climate Change
- b) World Wildlife Fund
- c) World Conservation Union
- d) Red Data Book

Q.72) Solution (a)

Ministry of Environment, Forest and Climate Change, Government of India has launched the "Asiatic Lion Conservation Project" with an aim to protect and conserve the world's last ranging free population of Asiatic Lion and its associated ecosystem.

Source: <http://pib.nic.in/PressReleaseDetail.aspx?PRID=1556880>

Q.73) Consider the following statements with respect to 'Start-up Village Entrepreneurship Programme (SVEP)'

1. It is a sub-scheme under the Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM)
2. Any graduate from a rural area who is willing to be entrepreneurial and self-reliant is eligible to be part of this programme

Select the correct statements

- a) 1 Only
- b) 2 Only

- c) Both 1 and 2
- d) Neither 1 nor 2

Q.73) Solution (a)

The Start-up Village Entrepreneurship Program is a sub component of Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) of the Ministry of Rural Development. SVEP aims to support entrepreneurs in rural areas to set up local enterprises.

The long term vision of the SVEP is to provide support for start-up to 1 crore village enterprises and provide direct employment to 2 crore people. The SVEP shall help the rural poor come out of poverty by helping them set up enterprises and provide support till the enterprises stabilize. The programmatic intervention will address all three missing ecosystems – Knowledge, advisory and finance ecosystems.

The overall objective of SVEP is to implement the Government's efforts to stimulate economic growth and reduce poverty and unemployment in the villages by helping start and support rural enterprises.

The key objectives of SVEP are:

- To enable rural poor to set up their enterprises, in its proof of concept phase, by developing a sustainable model for Village Entrepreneurship promotion through integrated ICT techniques and tools for training and capacity building, enterprise advisory services and to provide loans from banks/SHG & federations. These enterprises may be individual or group enterprises and should cover manufacturing, services and trading. These enterprises should cover traditional skills as well as new skills. They should also cover existing consumption and production of rural areas and should also cover new consumption and production of the rural areas, including the new consumption driven by government's priorities like RURBAN mission, Swachh Bharat Abhiyan, etc.
- Develop local resources by training a pool of village level community cadre (CRP EP) and build the capacity of the NRLM and SHG federations to monitor and direct the work of the CRP-EPs.
- Help the rural entrepreneurs to access finance for starting their enterprises from the NRLM SHG and federations, the banking systems including the proposed MUDRA bank.
- Handhold the rural entrepreneurs/ enterprises in the initial six months of start-up, with visits from the CRP-EP's supported by guidance from an advisory panel of experts for the relevant enterprise.

The SVEP would also work with the input and output supply chains for farm produce, artisanal products and other goods & services to help increase rural incomes.

Any Rural poor who is willing to be entrepreneurial and self-reliant is eligible to be part of this programme. Highly vulnerable beneficiaries under MGNREGA, marginalized sections, women, SC and ST communities and rural artisans will be given specific preference in selection, as part of this programme.

Q.74) 'Unnat PBW343' is a variety of

- a) Rice
- b) Mustard
- c) Wheat
- d) Cotton

Q.74) Solution (c)

New Wheat variety Unnat PBW343, resistant to leaf rust and stripe rust was developed by PAU, Ludhiana through marker assisted backcross breeding approach. This variety is an improved version of mega variety PBW343, has an average plant height of 100 cm, matures in about 155 days and has an average grain yield of 23.2 quintals per acre.

Q.75) Consider the following statements with respect to 'Global Green Growth Institute'

1. It was launched at the 2010 United Nations Framework Convention on Climate Change (UNFCCC) conference held in Cancun, Mexico
2. It is a treaty-based international, inter-governmental organization dedicated to supporting and promoting strong, inclusive and sustainable economic growth in developing countries and emerging economies

Select the correct statements

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

Q.75) Solution (b)

The Global Green Growth Institute (GGGI) is a treaty-based international organization headquartered in Seoul, South Korea. The organization aims to promote green growth, a growth paradigm that is characterized by a balance of economic growth and environmental sustainability. GGGI provides research and stakeholder engagement for green growth plans, especially in developing countries, aiming to replace the more typical paradigm based on industrial development.

Founded to support green economic growth that simultaneously addresses poverty reduction, job creation, social inclusion, and environmental sustainability, GGGI works across four priority areas that are considered to be essential to transforming national economies, including energy, water, land use, and green cities.

GGGI envisions a resilient world achieved through strong, inclusive, and sustainable green growth, and is dedicated to supporting the transition of GGGI Member countries toward a green growth model. In pursuit of these goals, GGGI works with developing and emerging countries to design and deliver programs to demonstrate new pathways for pro-poor, sustainable economic growth.

GGGI supports stakeholders through the delivery of comprehensive products and services designed to assist in developing, financing, and mainstreaming green growth to support the implementation of national economic development priorities and international commitments.

Q.76) Consider the following statements with respect to 'Sunda Trench'

1. It is an oceanic trench located near Sumatra
2. It is the deepest trench in the Indian Ocean

Select the correct code:

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

Q.76) Solution (c)

The Sunda Trench, earlier known as and sometimes still indicated as the Java Trench, is an oceanic trench located in the Indian Ocean near Sumatra, formed where the Australian-Capricorn plates subduct under a part of the Eurasian Plate.

It is 3,200 kilometres (2,000 mi) long. Its maximum depth 7,725, about 320 km south of Yogyakarta), is the deepest point in the Indian Ocean. The trench stretches from the Lesser Sunda Islands past Java, around the southern coast of Sumatra on to the Andaman Islands, and forms the boundary between Indo-Australian Plate and Eurasian plate (more specifically, Sunda Plate).

The trench is considered to be part of the Pacific Ring of Fire as well as one of a ring of oceanic trenches around the northern edges of the Australian Plate.

Mount Anak Krakatau located in the middle of the Sunda Strait that divides Sumatra and Java caused the latest Indonesia tsunami.

One of the largest and most destructive tsunamis ever recorded has also been caused by the Anak Krakatau volcano. In August 26, 1883, after the explosion and collapse of the volcano of Krakatoa (Krakatau), waves that reached 135 feet were generated, destroying coastal towns and villages along the Sunda Strait in both the islands of Java and Sumatra, killing 36,417 people.

It is also believed that the destruction of the Minoan civilisation in Greece was caused in 1490 B.C. by the explosion/collapse of the volcano of Santorin in the Aegean Sea

Source: <https://www.thehindu.com/sci-tech/science/watch-how-a-volcanic-eruption-causes-a-tsunami/article25813020.ece>

Q.77) Consider the following statements with respect to 'Storheia'

1. It is an active volcano mountain
2. It is located in Sweden

Select the correct code:

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

Q.77) Solution (d)

Norway would build a wind park in an area used for reindeer grazing despite UN calls to suspend the project to study the impact on the indigenous herders' livelihoods.

Storheia is the highest mountain in Bymarka in the municipality of Trondheim in Trøndelag county, Norway.

Source: <https://www.thehindu.com/news/international/norway-to-build-wind-farm-amid-concerns-about-reindeer/article25808880.ece>

Q.78) Consider the following statements with respect to 'Cities Investment to Innovate, Integrate and Sustain (CITIIS) Challenge'

1. It will identify top projects in 15 of the 100 selected smart cities.
2. A Loan of EUR 100 million would be extended by L'Agence Française de Développement (AFD) to selected CITIIS projects in the form of grant.

Select the correct statements

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

Q.78) Solution (c)

An all-India Challenge named CITIIS (Cities Investments to Innovate Integrate and Sustain) was launched on July 9, 2018 in partnership with Agence Française de Développement (AFD) and European Union. A Loan of EUR 100 million will be extended by Agence Française de Développement (AFD), which shall be given as a grant to Smart Cities for implementation of 15 innovative projects selected through the All-India Challenge. The projects would be in four sectors- sustainable mobility, public open spaces, urban governance & ICT and social and organizational innovation in low-income settlements. Technical support with global expertise will be provided for preparation and implementation of selected demonstrative projects.

Q.79) Consider the following statements with respect to 'Timberlines'

1. It is the edge of the habitat at which trees are capable of growing
2. Global warming is causing timberlines to move upward

Select the correct code:

- a) 1 Only

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

Q.79) Solution (c)

Trees grow all over the world, in many different types of weather. But above certain elevations, trees just can't grow. Think of it like this: someone draws a horizontal line on a mountainside; above that line, there are no trees. This imaginary line on the Earth is called the timberline, or the tree line. The timberline is usually a point where there isn't enough air, heat, or water to keep trees alive.

The cold climates on high-altitude mountain tops make it usually difficult for trees to grow above the timberline (the last canopy forests on the mountains). Though global warming is changing this in many of the world's high mountains and causing timberlines to move upward, the eastern Himalaya may be an exception.

Timberlines, the uppermost limit of canopy forests that gradually gives way to the treeline (beyond which trees do not grow) are limited by climate: factors including low temperatures and high winds on mountain tops prevent woody tree growth higher up. Timberlines, therefore, serve as indicators of climate change.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/sikkims-highest-forest-zone-could-get-denser/article25807509.ece>

Q.80) The 'Strait of Gibraltar' is between

- a) Morocco and Spain
- b) Tunisia and Italy
- c) France and England
- d) Denmark and Germany

Q.80) Solution (a)

The Strait of Gibraltar is a narrow strait that connects the Atlantic Ocean to the Mediterranean Sea and separates Gibraltar and Peninsular Spain in Europe from Morocco and Ceuta (Spain) in Africa.



Q.81) Consider the following statements with respect to 'AMRUT' scheme

1. It ensure that every household has access to a tap with assured supply of water and a sewerage connection
2. Affordable housing will be provided to the urban poor with a target of building 20 million affordable houses by 31 March 2022

Select the correct code:

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

Q.81) Solution (b)

Atal Mission for Rejuvenation and Urban Transformation

It was launched with the focus to establish infrastructure that could ensure adequate robust sewage networks and water supply for urban transformation by implementing urban revival projects.

Rajasthan was the first state in the country to submit State Annual Action Plan under Atal Mission for Rejuvenation and Urban Transformation (AMRUT).

The scheme Housing for All by 2022 and Atal Mission for Rejuvenation and Urban Transformation (AMRUT) were launched on the same day.

The scheme is dependent with public private partnership (PPP) model. If required, various other schemes like Swachh Bharat Mission, Housing for All 2022, along with the local state schemes like that related to water supply and sewerage and other infrastructure related schemes can be linked to AMRUT.

SAAP(State Annual Action Plans) is a consolidated plan of all the city level SLIPs(Service Level Improvement Plan) of all proposed AMRUT cities in the respective states. A formulation on City level SLIP is done based on diligent estimation of ambiguities in the availability of infrastructure like water supply, sewerage network, draining system, transportation facilities, available digital and internet facilities, industrial facilities etc. 135litres per capita per day is another factor in the process including water supply and sewerage connections to all urban households.

Read More - <http://amrut.gov.in/writereaddata/The%20Mission.pdf>

Q.82) Consider the following statements with respect to 'Agni IV'

1. It is a two-stage solid propellant missile
2. It has a strike range of 4,000 km

Select the correct code:

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

Q.82) Solution (c)

Agni-IV is the fourth in the Agni series of missiles which was earlier known as Agni II prime. It has been developed by India's DRDO and displayed a number of new technologies and significant improvement in missile technology. The missile is light-weight and has two stages

of solid propulsion and a payload with re-entry heat shield. Capable of striking targets in nearly all of China (including Beijing and Shanghai) if launched from northeastern India.

It is an Intermediate Range Ballistic Missile with a strike range of 4000 km.

Source: <https://timesofindia.indiatimes.com/india/n-capable-agni-iv-missile-test-fired-successfully/articleshow/67223242.cms>

Q.83) What is 'Vespucci' which was recently in news

- a) Italian Intercontinental Ballistic Missile
- b) European Navigation Satellite System
- c) Aircraft carrier developed by Brazil
- d) GPS Satellite for US Air Force

Q.83) Solution (d)

GPS III satellite was built by Lockheed Martin and launched by SapecX for US Military operations.

The solar-powered Vespucci will provide a number of advantages over the old-guard satellites.

The SUV-size Vespucci, which weighed 9,700 lbs. (4,400 kilograms) at launch will replace a GPS craft known as SVN-43

GPS III signals will also be compatible with other satellite-navigation systems

Vespucci's nickname honors Italian cartographer and explorer Amerigo Vespucci, after whom North and South America were named.

Q.84) Consider the following statements with respect to 'National Supercomputing Mission (NSM)'

1. It is implemented and steered jointly by the Department of Science and Technology (DST) and Department of Electronics and Information Technology (DeitY)
2. French IT services firm Atos will build the first phase of supercomputers under National Supercomputing Mission (NSM)

Select the correct statements

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

Q.84) Solution (c)

India awarded French technology firm Atos a ₹4,500-crore contract to build 70 supercomputers under the National Supercomputing Mission.

The contract could see as many as 73 supercomputers manufactured and designed in India, and will boost India's supercomputing capabilities.

The mission is supposed to be implemented by the Department of Science and Technology and Department of Electronics and Information Technology (DeitY), through the Centre for Development of Advanced Computing (C-DAC) and Indian Institute of Science (IISc), Bengaluru.

While the first few supercomputers under the contract will have all imported parts, Atos has partnered with Indian contractors to build most of the parts in facilities in Chennai and Pune.

In the next phase, the supercomputers will not only be manufactured but also be designed by CDAC in India, allowing the country to be self-reliant in the technology that is essential for India's new-age applications such as drug discovery, weather and natural disaster prediction, and even space ambitions.

Source: <https://www.thehindubusinessline.com/companies/national-supercomputing-mission-atos-gets-4500-cr-project/article25758236.ece>

Q.85) Gupta sculpture was influenced by:

- a) Mathura School
- b) Amravati School
- c) Gandhara School
- d) Both (a) and (b)

Q.85) Solution (d)

With the Gupta period India entered upon the classical phase of sculpture. By the efforts of the centuries, techniques of art were perfected, definite types were evolved, and ideals of beauty were formulated with precision.

In the Gupta period all the trends and tendencies of the artistic pursuits of the proceeding phases reached their culmination in a unified plastic tradition of supreme importance in Indian History. Gupta sculpture thus is the logical outcome of the early classical sculpture of Amravati and Mathura. Its plasticity is derived from that of Mathura and its elegance from that of Amravati.

Q.86) The 'Aldabra Atoll' is nearest to which of the following countries?

- a) Comoros
- b) Seychelles
- c) Indonesia
- d) Maldives

Q.86) Solution (a)

Aldabra is the world's second-largest coral atoll. It is situated in the Aldabra Group of islands in the Indian Ocean that are part of the Outer Islands of the Seychelles, with a distance of 1,120 km (700 mi) southwest of the capital, Victoria, on Mahé Island.

It is nearest to Comoros (411 Km).

Q.87) Consider the following statements and identify the correct ones:

- 1. Lohit is a tributary to the Brahmaputra River
- 2. Dhola–Sadiya Bridge is built across the Lohit River

Select the correct statements

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

Q.87) Solution (c)

The Dhola–Sadiya Bridge, also referred to as the Bhupen Hazarika is a beam bridge in India, connecting the northeast states of Assam and Arunachal Pradesh. The bridge spans the Lohit River, a major tributary of the Brahmaputra River, from the village of Dhola (Tinsukia District) in the south to Sadiya to the north. The bridge is the first permanent road connection between the northern Assam and eastern Arunachal Pradesh.

Q.88) Pratikar, a bilateral military exercise is between

- a) India and Nepal
- b) Nepal and Bhutan
- c) Nepal and Sri Lanka
- d) None of the above

Q.88) Solution (d)

Nepal and China

Q.89) Ashok Chawla Committee is concerned with

- a) Army Pay Scales
- b) Long Term Food Policy
- c) Banking Supervision
- d) Allocation of Natural Resources

Q.89) Solution (d)

Ashok Chawla committee on Allocation of Natural Resources had recommended placing water in the concurrent list.

The goal was to examine the approach to allocating natural resources such as land, coal, minerals, petroleum and natural gas.

The major purpose was to obtain recommendations to:

- Enhance transparency, effectiveness and sustainability in the allocation, pricing and utilization of natural resources through open, transparent and competitive mechanisms

- Suggest changes in the legal, institutional and regulatory framework to implement the recommendations

Q.90) Crevasses form because _____

- a) the glacial surface partially melts, leaving holes and cracks
- b) glacial meltwater erodes small valleys as glacial rivers flow
- c) low confining pressure at the surface causes cracks as the ice flows
- d) a glacial calving process has not been completed

Q.90) Solution (c)

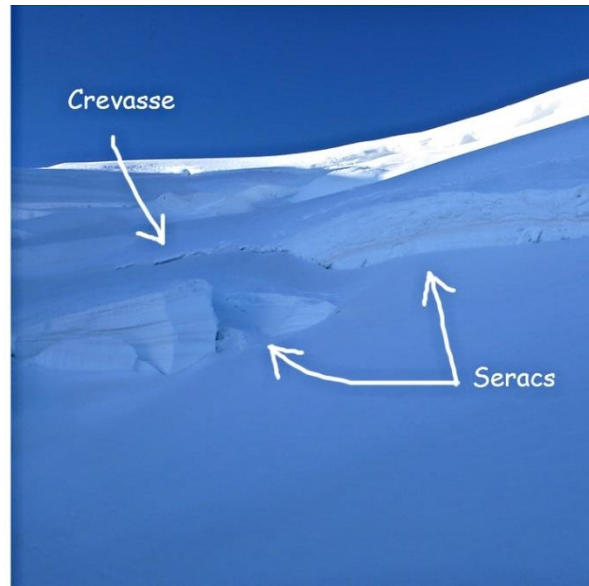
What: it is a fissure, or deep open crack in glacial ice



How formed: As a result of the movement and resulting stress associated with the stress generated when two semi-rigid pieces above a plastic substrate have different rates of movement.

Crevasse size often depends upon the amount of liquid water present in the glacier.

In news: A US climate scientist died after his snowmobile hit the crevasse in Antarctica.



For more information on crevasse, visit

<http://www.mountainprofessor.com/crevasses.html>

<https://en.wikipedia.org/wiki/Crevasse>

Q.91) 'Net metering' is sometimes seen in the news in the context of promoting the

- a) Use of piped natural gas in the kitchens of households
- b) Installation of CNG kits in motor-cars
- c) Installation of water meters in urban households
- d) Production and use of solar energy by the households/consumers

Q.91) Solution (d)

Net metering allows consumers who generate some or all of their own electricity to use that electricity anytime, instead of when it is generated. This is particularly important with renewable energy sources like wind and solar, which are non-dispatchable.

Q.92) 'Project Tsang-da' is associated with

- a) Snow Leopard
- b) Waste management
- c) Road Connectivity
- d) Interlining of rivers

Q.92) Solution (b)

Project Tsang-da, initiated by the district administration, aims at sustainable waste management in rural areas of Leh district and city.

For the first time, the project turned the waste into revenue-generating goods, such as curtains, toys and cushion covers.

Wine or beer bottles and other broken glasses were also reused in construction of roads and buildings by local construction companies.

Source: <https://www.thehindu.com/news/national/other-states/leh-makes-short-work-of-a-mountain-of-waste/article25828860.ece>

Q.93) 'Florianopolis Declaration' is associated with

- a) Regional Comprehensive Economic Partnership
- b) Regional Integrated Multi-Hazard Early Warning System for Africa and Asia
- c) International Whaling Commission
- d) Greek government-debt crisis

Q.93) Solution (c)

On 13 September 2018, IWC members gathered in Florianopolis, Brazil, where they discussed and rejected a proposal by Japan to renew commercial whaling. Through the "Florianopolis Declaration", it was concluded that the purpose of the IWC is the conservation of whales and that they would now safeguard the marine mammals in perpetuity and would allow the recovery of all whale populations to pre-industrial whaling levels.

Q.94) Consider the following statements with respect to 'Hongyun project'

- 1. It is led by China Aerospace Science and Industry Corp. (CASIC)
- 2. It aims to provide broadband internet connectivity to users around the world

Select the correct statements

- a) 1 Only
- b) 2 Only

- c) Both 1 and 2
- d) Neither 1 nor 2

Q.94) Solution (c)

Inaugurated in 2016, the project is led by China Aerospace Science and Industry Corp. (CASIC) with a vision to build a space-based communications network that is able to offer broadband internet connectivity to users around the world, especially in remote and underserved regions. The network will constitute some 150 communication satellites, situated in earth's lower orbit (at an altitude of 160 to 2,000 km) with each of them transmitting 500 megabytes of data per second. It is expected to become operational by 2022.

Once completed Hongyun will cover the whole world and offer round-the-clock communication services to users in Polar Regions, who now have difficulties accessing telecommunication and internet services, even from on board an aircraft or a ship or in a remote area.

Source: <https://www.thehindu.com/sci-tech/science/china-launches-first-satellite-for-space-based-broadband-project/article25806057.ece>

Q.95) Consider the following statements with respect to '[Paika Rebellion](#)'

1. It was not supported by the tribals
2. It was led by Baxi Jagandhu Bidyadhara

Select the correct statements

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

Q.95) Solution (b)

Pre-dating what has been popularly regarded as the first war of independence in 1857, the Paika Bidroha (Paika Rebellion) of 1817 in Odisha briefly shook the foundations of British rule in the eastern part of India. Paikas were essentially the peasant militias of the Gajapati rulers of Odisha who rendered military service to the king during times of war while taking up cultivation during times of peace. They unfurled the banner of rebellion against the

British under the leadership of Baxi Jagandhu Bidyadhara as early as 1817 to throw off the British yoke.

The tribals of Ghumusar (part of present day Ganjam and Kandhmal Districts) and other sections of the population actively took part in it. In fact, the Paika Bidroha got the opportune moment to spread when 400 tribals of Ghumsar entered Khurda protesting against the British rule. The Paikas were supported by the rajas of Kanika, Kujang, Nayagarh and Ghumusar and zamindars, village heads and ordinary peasants.

Q.96) Consider the following statements with respect to 'Lytein River'

1. It runs a course through the Ladakh
2. It flows along the entire length of Pakistan to merge into the Arabian Sea

Select the correct code:

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

Q.96) Solution (d)

Lytein river flows through Meghalaya. The miners were trapped after water from the nearby Lytein river gushed into the illegal rat-hole mine at Ksan area in Lumthari village.

Q.97) Consider the following statements about 'Sambar'

1. It is native to the Indian subcontinent only
2. It is listed as 'Least Concern' on the IUCN Red List

Select the correct statements

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

Q.97) Solution (d)

The sambar (*Rusa unicolor*) is a large deer native to the Indian subcontinent, southern China, and Southeast Asia that is listed as Vulnerable on the IUCN Red List since 2008. Populations have declined substantially due to severe hunting, insurgency, and industrial exploitation of habitat.

The name "sambar" is also sometimes used to refer to the Philippine deer, called the "Philippine sambar" and the Javan rusa, called the "Sunda sambar".

Q.98) 'Katarniaghat Wildlife Sanctuary' is located in

- a) Uttar Pradesh
- b) Nepal
- c) Uttarakhand
- d) West Bengal

Q.98) Solution (a)

The Katarniaghat Wildlife Sanctuary is a protected area in the Upper Gangetic plain in Uttar Pradesh, India and covers an area of 400.6 km² in the Terai of the Bahraich district. In 1987, it was brought under the purview of the 'Project Tiger', and together with the Kishanpur Wildlife Sanctuary and the Dudhwa National Park it forms the Dudhwa Tiger Reserve.

The Katarniaghat Forest provides strategic connectivity between tiger habitats of Dudhwa and Kishanpur in India and the Bardia National Park in Nepal. Its fragile Terai ecosystem comprises a mosaic of sal and teak forests, lush grasslands, numerous swamps and wetlands. It is home to a number of endangered species including gharial, tiger, rhino, Gangetic dolphin, swamp deer, hispid hare, Bengal florican, the white-backed and long-billed vultures.

Q.99) Consider the following statements with respect to 'North-East Industrial Development Scheme (NEIDS) 2017'

1. It includes reimbursement up to the extent of Central Govt. share of CGST and IGST for 5 Years from the date of commencement of commercial production by the unit
2. The industrial unit set up under the scheme can claim Reimbursement of Centre's share of income tax for first 5 years including the year of commencement of commercial production by the unit.

Select the correct statements

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

Q.99) Solution (c)

North East Industrial Development Scheme (NEIDS), 2017 with financial outlay of Rs.3000 crores upto March, 2020. Government will provide necessary allocations for remaining period of scheme after assessment before March 2020. NEIDS is a combination of the incentives covered under the earlier two schemes with a much larger outlay.

Under the Scheme, the following incentives shall be provided to new industrial units set up in the North Eastern States including Sikkim:

Central Capital Investment Incentive for Access to Credit (CCIIAC)

- 30% of the investment in Plant & Machinery with an upper limit of Rs.5 Crore on the incentive amount per unit.

Central Interest Incentive (CII)

- 3% on working capital credit advanced by eligible Banks/ Financial institutions for first 5 years from the date of commencement of commercial production by the unit.

Central Comprehensive Insurance Incentive (CCII)

- Reimbursement of 100% insurance premium on insurance of building and Plant & Machinery for 5 years from the date of commencement of commercial production by the unit.

Goods and Service Tax (GST) Reimbursement

- Reimbursement up to the extent of Central Govt. share of CGST and IGST for 5 Years from the date of commencement of commercial production by the unit.

Income-Tax (IT) Reimbursement

- Reimbursement of Centre's share of income tax for first 5 years including the year of commencement of commercial production by the unit.

Transport Incentive (TI)

- 20% of the cost of transportation including the subsidy currently provided by Railways/ Railway PSU for movement of finished goods by rail.

- 20% of cost of transportation for finished goods, for movement through Inland Waterways Authority of India.
- 33% of cost of transportation of air freight on perishable goods (as defined by IATA) from the airport nearest to place of production to any airport within the country.

Employment Incentive (EI)

- The Government shall pay 3.67% of the employer's contribution to the Employees Provident Fund (EPF) in addition to Government bearing 8.33% Employee Pension Scheme (EPS) contribution of the employer in the Pradhan Mantri Rojgar Protsahan Yojana (PMRPY).

Read More - https://dipp.gov.in/sites/default/files/NEIDS_2017_16April2018.pdf

Q.100) Consider the following statements and identify the correct ones:

1. RBI transfers the surplus funds to the government after keeping all provisions and contingency buffers, according to its statutory mandate under Section 47 of the RBI Act.
2. Central Government has formed Bimal Jalan committee to review the RBI's existing economic capital framework (ECF).

Select the correct statements

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

Q.100) Solution (a)

The Reserve Bank of India has formed an expert committee under former governor Bimal Jalan to decide the appropriate level of reserves that the regulator should hold.

The six-member panel has former deputy RBI governor Rakesh Mohan as its vice chairman and comprises economic affairs secretary Subhash Chandra Garg, RBI central board members Bharat Doshi and Sudhir Mankad and deputy governor NS Vishwanathan.

It will review "the need and justification of various provisions, reserves and buffers" that RBI has maintained for contingency purposes and suggest an adequate level of risk provisioning.

It will “propose a suitable profits distribution policy taking into account all the likely situations of the RBI, including the situations of holding more provisions than required and the RBI holding less provisions than required.”

This will be the first time a panel on RBI's economic capital framework will have government representatives. The previous three were headed by YH Malegam, Usha Thorat and V Subrahmanyam, all associated with the central bank, with the latter two having been deputy governors. The six-member Malegam committee on preparation of the RBI balance sheet in 2013 had two external experts but no government nominees, while the Thorat group in 2004 and the Subrahmanyam panel in 1997 were purely internal.

RBI transfers the surplus to the government after keeping all provisions and contingency buffers, according to its statutory mandate under Section 47 of the RBI Act. The reserves are meant for unforeseen contingencies, including depreciation in the value of securities, risks arising from exchange rate operations and other systemic challenges.

The central bank's core reserve —contingency fund—is only around 7% of its total assets and the rest of it is largely in revaluation reserves, which fluctuate with corresponding changes in currency and gold valuations. In 2017-18, the central bank's contingency funds and revaluation reserves stood at ₹2.32 trillion and ₹6.92 trillion respectively.

RBI data shows that the growth in revaluation reserves has far exceeded the growth in contingency fund. While revaluation reserves have more than tripled from ₹1.99 trillion in 2008-09 to ₹6.92 trillion in 2017-18, the contingency fund has grown 50% during the same period from ₹1.53 trillion to ₹2.32 trillion.