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Of

**May
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1. Geography

Click [here](#) to watch the following questions on YouTube

1. Identify the reasons for differential heating of land and water

1. Specific heat of water is greater than land.
2. Sunrays penetrate greater depth in land than water
3. High albedo of oceanic water

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2 and 3

Answer: C

Explanation

- Sunrays penetrate greater depth in water than land
- Water - Heating +Evaporation, land - only heating
- Cloud cover over oceans
- Heat distribution rapid in water - it is mobile
- High albedo of oceanic water
- Specific heat of water is greater than land

2. Climate is extreme, rainfall is scanty and the people used to be nomadic herders." (2013) The above statement best describes which of the following regions?

- A. African Savannah
- B. Central Asian Steppe
- C. North American Prairie
- D. Siberian Tundra

Answer: B

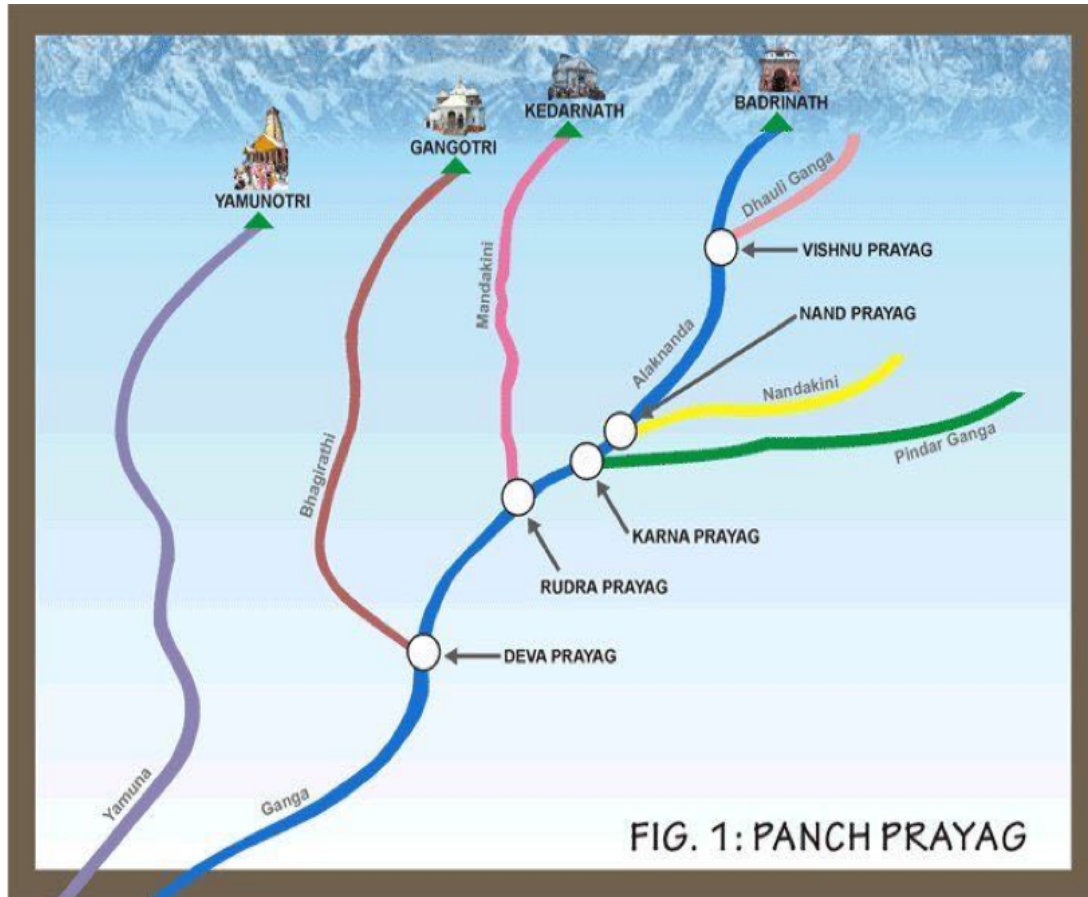
3. Which one of the following is the place of confluence of the Alaknanda and the Bhagirathi?

- A. Vishnu Prayag
- B. Karan Prayag
- C. Rudra Prayag

D. Deva Prayag

Answer: D

Explanation



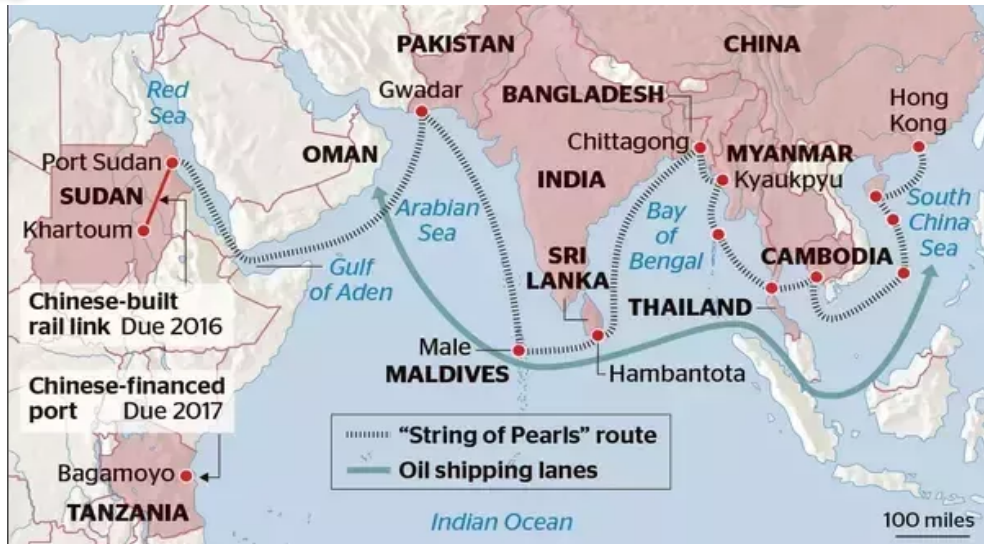
4. Which of the following is matched incorrectly?

1. Sabang port: Indonesia
2. Duqm Port: Oman
3. Catalonia: Spain
4. Bougainville: Papua New Guinea

- A. Only 1
- B. Only 2
- C. Only 3
- D. Only 4

Answer: C

Explanation



5. Kowloon peninsula recently heard in news is under the administration of which of the following countries?

- A. Indonesia
- B. Malaysia
- C. Hong Kong
- D. Taiwan

Answer: C

Explanation

- Hong Kong is set to grant a site on the western Kowloon peninsula, to China's national security office for its permanent base in the city.



2. History

Click [here](#) to watch the following questions on YouTube

1. Which one of the following statements regarding Ashokan stone Pillars is incorrect - (1997) Select the correct answer -

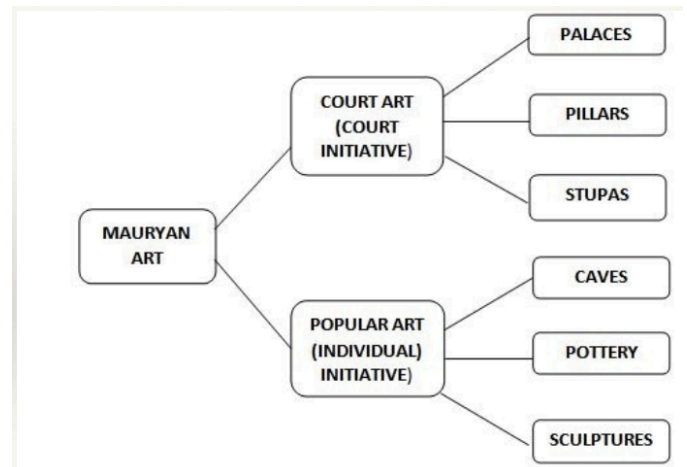
- A. They are highly polished.
- B. They are monolithic
- C. The shaft of pillars is tapering in shape.
- D. These are parts of Architectural structures.

Answer: D

Explanation

Ashokan Pillars

- King Ashok patronised the shaman tradition - Buddhism which also paved the way for the development of Mauryan sculptural and Architectural styles.
- If we talk about the pillars ,as as symbol of the state, assumed a great significance in the entire Mauryan Empire.
 - ✓ Material Used - Primarily Chunar Sandstone.
 - ✓ Objective - To disseminate Buddhist ideology and court orders in the entire Mauryan empire.
 - ✓ Language - Most of the pillars edicts have the use of Pali and Prakrit language, while few were also found in Greek or Aramic languages.



Pillar Architecture

- It comprised mainly of four parts -
 - ✓ Shaft - A long shaft formed the base and was made up of a single piece of stone or monolith.
 - ✓ Capital - On top of shaft lay the capital, which was either lotus-shaped or bell- shaped.
 - ✓ Abacus - Above the capital, there was a circular or rectangular base known as the abacus.
 - ✓ Capital Figure - All the capital figures (usually animals like a bull, lion, elephant, etc) are vigorous and carved standing on a square or circular abacus.



Similarities with Persian (Achaemenian) Pillars

- Polished stones and Motifs - Both used polished stones and have certain common sculpture motifs such as the Lotus.
- Proclamations - The idea of spreading written Information through the use of pillars had its origin in the Persian Pillars only.
- Special Feature - Inscriptions of both empires begin in the third person and then move to the first person.

Differences with Persian (Achaemenian) Pillars

- Minor Variations in Capital Figure and Shape and Orientation like in Mauryan pillars of the Kumhrar hall whereas pillars at Persepolis have the elaborate capital figures and the shape of Mauryan lotus is different from the Persian pillar.
- Pillar Surface: Most of the Persian pillars have a fluted/ ridged surface while the Mauryan pillars have a smooth surface.
- Architectural Scheme: The Achaemenid pillars were generally part of some larger architectural scheme, and bit complex and complicated, while the Ashokan pillars were simple and independent freestanding monuments.
- Shaft: Unlike Mauryan shafts which are built of monolith (single piece of stone), Persian/Achaemenian shafts were built of separate segments of stones (aggregated one above the other).

2. Which of the following edicts mentions the personal name of Ashoka - (1997) Select the correct answer using the code below -

- A. Kalsi
- B. Runnindei
- C. Kaling edict
- D. Maski

Answer: D

Explanation

Ashokan Edicts

- Ashoka uses his name only in these 4 edicts
 - ✓ Maski
 - ✓ Brahmgiiri
 - ✓ Gujjara (MP)
 - ✓ Nettur (AP)
- The edicts of Ashoka are a collection of 33 inscriptions on the Pillars, as well as boulders and cave walls.

- These were dispersed throughout the areas of Modern Day - Bangladesh - India - Nepal - Afghanistan and Pakistan and provide the first tangible evidence of Buddhism.
- The inscriptions found in the central and eastern part of India were written in Magadhi Prakrit using the Brahmi script, while Prakrit using the Kharoshthi script, Greek and Aramaic were used in the northwest.
- These edicts were deciphered by British archaeologist and historian James Prinsep.
- Three languages are used - Ashokan Prakrit, Greek and Aramaic.
- Four Scripts are used -
 - ✓ Prakrit inscriptions were written in Brahmi and Kharoshthi scripts.
 - ✓ Greek and Aramaic inscriptions used their respective scripts.
- Kandhar Rock Inscription is bilingual in nature - Greek and Aramaic and originally probably contained all the Major Rock Edicts 1-14.
- The Edicts are divided into four categories, according to their size (Minor or Major) and according to their medium (Rock or Pillar).
- Minor Rock Edicts: Edicts inscribed at the beginning of Ashoka's reign; in Prakrit, Greek and Aramaic.
- Minor Pillar Edicts: Schism Edict, Queen's Edict, Rummindei Edict, Nigali Sagar Edict; in Prakrit.
- Major Rock Edicts: 14 Edicts (termed 1st to 14th) and 2 separate ones found in Odisha; in Prakrit and Greek.
- Major Pillar Edicts: 7 Edicts, inscribed at the end of Ashoka's reign; in Prakrit.
- The Minor Rock edicts as well as Minor Pillar edicts are religious in Nature, they mention extensively the Buddha (and even previous Buddhas as in the Nigali Sagar inscription), the Sangha, Buddhism and Buddhist scriptures (as in the Bairat Edict)
- Major Rock edicts and Major Pillar edicts are essentially moral and political in nature and they never mention Buddha or explicit Buddhist teachings, but are preoccupied with order, proper behaviour and non violence under the general concept of "Dharma",
 - ✓ They also focus on the administration of the state and positive relations with foreign countries as far as the Hellenistic Mediterranean of the mid-3rd century BCE.

Minor Rock Edicts (Points to be noted)

- Kandhar Bilingual Rock Inscription - First known Edict - Bilingual (Greek and Aramaic) - written in 10th year of his reign.
- Maski Edict - It confirms the association of title 'Devanampriya' with the title 'Asoka', thereby clarifying the historical author of these inscription.
- Gujjara Edict - Also mentions the name of Ashoka with his full title - "Devanampiya Piyadasi Asokaraja".
- Bairat Edict - Gives a list of Buddhist scriptures (most of them unknown today).
- They refer to 14 separate major edicts, which are significantly detailed and extensive.

- These Edicts were concerned with practical instructions in running the kingdom such as the design of irrigation systems and descriptions of Ashoka's beliefs in peaceful moral behaviour.
- They contain little personal detail about his life.[32] These edicts are preceded chronologically by the Minor Rock Edicts.
- Three languages were used, Prakrit, Greek and Aramaic. The edicts are composed in non-standardized and archaic forms of Prakrit.
- Prakrit inscriptions were written in Brahmi and Kharosthi scripts, which even a commoner could read and understand.
- The Major Rock Edicts of Ashoka are inscribed on large rocks, except for the Kandahar version in Greek (Kandahar Greek Edict of Ashoka), written on a stone plaque belonging to a building.

Major Pillar Edicts (Points to be noted)

- The Major Pillar Edicts of Ashoka refer to seven separate major Edicts inscribed on columns, the Pillars of Ashoka, which are significantly detailed and extensive.
- They are all located in central India.

3. Polity & Governance

Click [here](#) to watch the following questions on YouTube

1. Section 142 of Social Security Code, recently in news, is related to which of the following?

- A. Aadhar
- B. Public Distribution System
- C. Health Care
- D. All of the above

Answer: A

Explanation

- The Ministry of Labour and Employment recently notified Section 142 of the Social Security Code, 2020. The Section covers applicability of the Aadhaar. The notification will enable the Ministry of Labour and Employment to collect Aadhaar details from the beneficiaries of various social security schemes. This includes migrant workers as well.
 - ✓ The National Informatics Centre is creating a National Database for unorganised workers.
 - ✓ The portal aims to collect data of migrant workers as well. This data will be used by various schemes of the Government.
 - ✓ An inter-state migrant worker can register himself in the portal by submitting Aadhaar alone.
 - ✓ Section 142 says that Aadhaar details are compulsory for an employee or unorganised person or any other person to get benefits of government schemes.
 - ✓ The benefits can be in kind of cash for medical sickness, availing services of career centre, maternity benefits, receiving payment as insured person, etc.

2. Which of the following statements are correct about the Unique ID for Persons with Disabilities Project?

1. The Project aims to create a National Database for the Persons with Disabilities.
 2. It aims to issue a UDID, that is, Unique Disability Identity Card to each person with disabilities.
 3. The persons with disabilities included in the project are based on Disabilities Act, 1995.
- A. 1 and 2 only
 - B. 2 and 3 only
 - C. 1 and 3 only
 - D. All of the above

Answer: D

Explanation

- The UDID project is under implementation since 2016. The Department of Empowerment of Persons with Disabilities recently made it mandatory for all states and Union Territories to issue a certificate of disability only using UDID portal.
 - This is to come into force from June 1, 2021.
 - UDID is Unique ID for Persons with Disabilities Project.
 - The project aims to provide a Universal ID And disability certificates for persons with disabilities.
 - The Project aims to create a National Database for the Persons with Disabilities. Also, it aims to issue a UDID, that is, Unique Disability Identity Card to each person with disabilities.
 - The persons with disabilities included in the project are based on Disabilities Act, 1995.
3. Consider the following statements under the writ Jurisdiction of High Courts and mark the correct ones?
1. Writs come under the Original Jurisdiction of the High Courts.
 2. High Courts have been empowered to issue writs for the enforcement of Fundamental Rights and for other purposes.
- A. 1 only
B. 2 only
C. Both 1 and 2
D. Neither 1 nor 2

Answer: C

Explanation

- Article 226 of the Constitution empowers a high court to issue writs including habeas corpus, mandamus, certiorari, prohibition and quo warranto for the enforcement of the fundamental rights of the citizens and for any other purpose.
- The phrase 'for any other purpose' refers to the enforcement of an ordinary legal right.
- The high court can issue writs to any person, authority and government not only within its territorial jurisdiction but also outside its territorial jurisdiction if the cause of action arises within its territorial jurisdiction (15th Constitutional Amendment Act of 1963).
- In the Chandra Kumar case (1997), the Supreme Court ruled that the writ jurisdiction of both the high court and the Supreme Court constitute a part of the basic structure of the Constitution. Hence, it cannot be ousted or excluded even by way of an amendment to the Constitution.

4. Which of the following statements are incorrect about Centrally Sponsored Schemes in India?

1. Centrally Sponsored Schemes are are funded directly by the central ministries/ departments and implemented by Central government directly.
2. They mainly offer assistance on subjects in the union list.
3. These schemes are 100% funded by the Central government

- A. 1 only
- B. 2 only
- C. 1 and 2 only
- D. All of the above

Answer: D

Explanation

Centrally Sponsored Schemes:	Central Sector Schemes:
Centrally Sponsored Schemes as defined by the National Development Council are those that are funded directly by the central ministries/ departments and implemented by states or their agencies.	Central Sector Schemes are those that are implemented by a central agency and 100% funded by the centre. These are also executed by the central government.
This assistance is deliberately in areas that are State subjects , with the centre wishing to motivate the States to take up such programs.	The assistance is mainly on subjects within the union list.
The cost of these schemes is borne on a shared basis in the ratio of 50:50, 70:30, 75:25 or 90:10. Under the cost ratio, the larger portion is always borne by the Centre.	The schemes are entirely funded by the Union (100%) and the financial resources are not shifted to states.
Article 282 of the Constitution allows the Union or a State to make any grant for any purpose, irrespective of the question whether the purpose is one over which the grantor has legislative power	These are often criticized for following a top-down approach.

5. Which of the following are correct about the scheme, Operation Greens?

1. It is a Central Sector Scheme.
2. The scheme is under the aegis of Ministry of Agriculture and Farmers' welfare.
3. It aims to double the income of farmers by end of 2022 by ensuring the right price for their produce.
4. Initially the scheme started by focusing on three basic vegetables only- namely tomatoes, onions and potatoes.

- A. 1, 2 and 3 only
- B. 1, 3 and 4 only
- C. 2, 3 and 4 only

D. All of the above

Answer: B

Explanation

- Operation Greens is a Central sector scheme which was announced initially for integrated development of Tomato, Onion and Potato (TOP) value chain with a budgetary allocation of Rs 500 crore by the Ministry of Food Processing Industries (MoFPI).
- It was launched on the lines of Operation Flood to double the income of farmers by end of 2022. It is essentially a price fixation scheme that aims to ensure farmers are given the right price for their produce. The main objective of the project is to reduce price volatility in agriculture commodities such as vegetables
- The scheme has two-pronged strategy of price stabilisation measures (for short- term) and integrated value chain development projects (for long-term).
- Government as part of Atmanirbhar Bharat Package, upgraded Operation Greens and extended all fruits and vegetables (TOTAL). Under the plan, 50% subsidy will be given on transportation from surplus production to deficient markets and 50% subsidy on storage, including cold storages.
- Food processors, FPO/FPC, co-operative societies, individual farmers, licensed commission agent, exporters, state marketing/co-operative federation, retailers and so on engaged in processing/ marketing of fruits and vegetables are eligible entities.

4. Economy

Click [here](#) to watch the following questions on YouTube

1. Which of the following statement (s) is/ are correct regarding "Purchasing Managers Index (PMI)"?
1. It is published by the National Statistical Office (NSO) for India.
 2. It forecasts whether market dynamics, as perceived by purchasing managers, are expanding, remaining stable, or contracting.

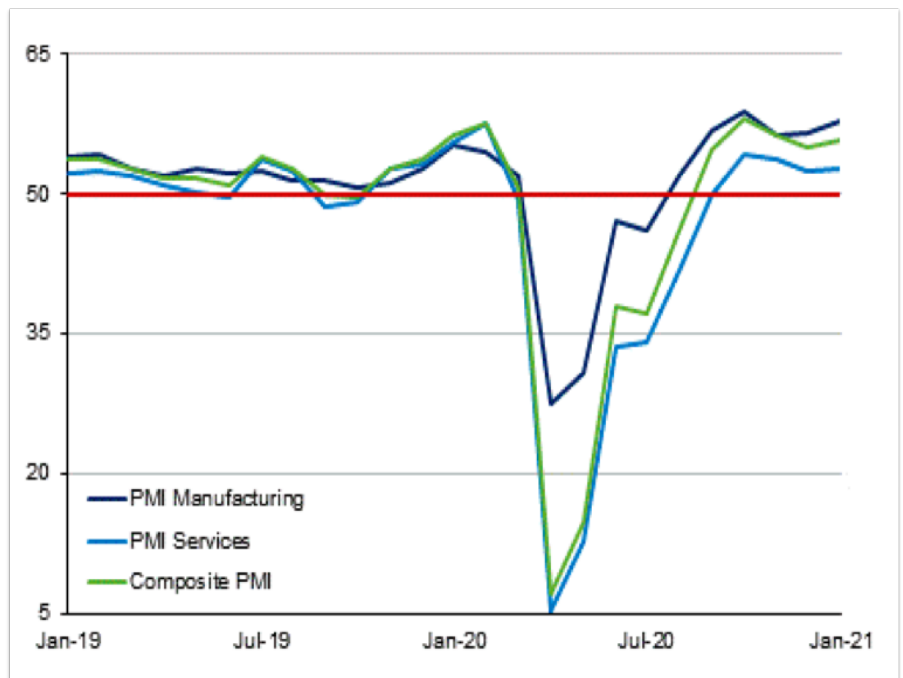
Select the correct code from the given options

- 1 Only
- 2 Only
- Both 1 and 2
- Neither 1 nor 2

Answer: A

Explanation

- The purchasing managers' index (PMI) is an economic indicator that surveys purchasing managers at businesses that make up a given sector.
- The purchasing managers' index consists of several different surveys that are compiled into a single numerical result depending on one of several possible answers to each question.
- It is an index of the prevailing direction of economic trends in the manufacturing and service sectors.
- It consists of a diffusion index that summarizes whether market conditions, as viewed by purchasing managers, are expanding, staying the same, or contracting.
- For India, the PMI Data is published by Japanese firm Nikkei but compiled and constructed by Markit Economics. A figure above 50 indicates expansion, while sub-50 signals contraction.



2. "Priority Watch List" is many times seen in news. Which of the following statement (s) is/ are correct?

1. India has been placed in this list for money laundering issues.
2. It has been given in the Annual Special 301 Report of USA.
3. One of the reasons for India's inclusion on the priority list is the use of restrictive patentability criteria to reject pharmaceutical patents.

Select the correct code from the given options

- A. 1 Only
- B. 1 and 2
- C. 2 and 3
- D. 1, 2 and 3

Answer: C

Explanation

- India was recently put into it due to lack of measurable improvements in intellectual property framework.
- Along with India, the USA has placed 10 countries including China in the list.

Issues involved

- Copyright laws not incentivizing the creation and commercialization of content.
- An outdated trade secrets framework.
- India restricted the transparency of information provided on state- issued pharmaceutical manufacturing licenses.
- India continues to apply restrictive patentability criteria reject pharmaceutical patents. (An idea must satisfy a three-pronged to novelty, non-obviousness, and utility).

3. In India, Financial Stability Report (FSR), which is a biannual report is released by?

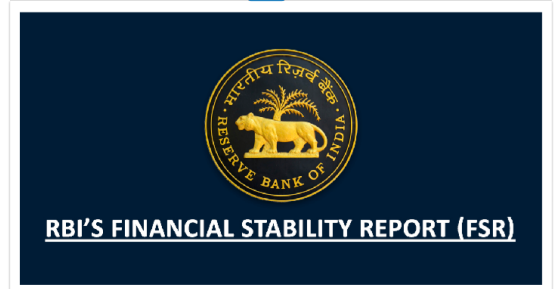
- A. SEBI (Securities and Exchange Board of India)
- B. PFRDA (Pension Fund Regulatory and Development Authority)
- C. RBI (Reserve Bank of India)
- D. Ministry of Finance

Answer: C

Explanation

- The Financial Stability Reports, published by Reserve Bank of India.

- It is published after being approved by Financial Stability and Development Council (FSDC) Sub-Committee since its inception, taking inputs from financial sector regulators i.e. RBI, SEBI, PFRDA, IRDAI including Ministry of Finance, are periodic exercise for reviewing the nature, magnitude and implications of risks that may have a bearing on the macroeconomic environment, financial institutions, markets and infrastructure.



- The report is published biannually and reflects an assessment of the Sub-Committee of the Financial Stability and Development Council (FSDC) on the risks to financial stability.
- Please Note: The Global Financial Stability Report is released by IMF.

4. With reference to 'Digital Services Taxes (DSTs)', consider the following statements

1. India does not yet have a Digital Services Tax (DST).
2. The tax applies only to non-resident companies and covers online sales of goods and services to persons in India.
3. These taxes are adopted on revenues that certain companies generate from providing certain digital services.

Select the correct code from the given options

- A. 2 and 3
- B. 2 Only
- C. 3 Only
- D. 1, 2 and 3

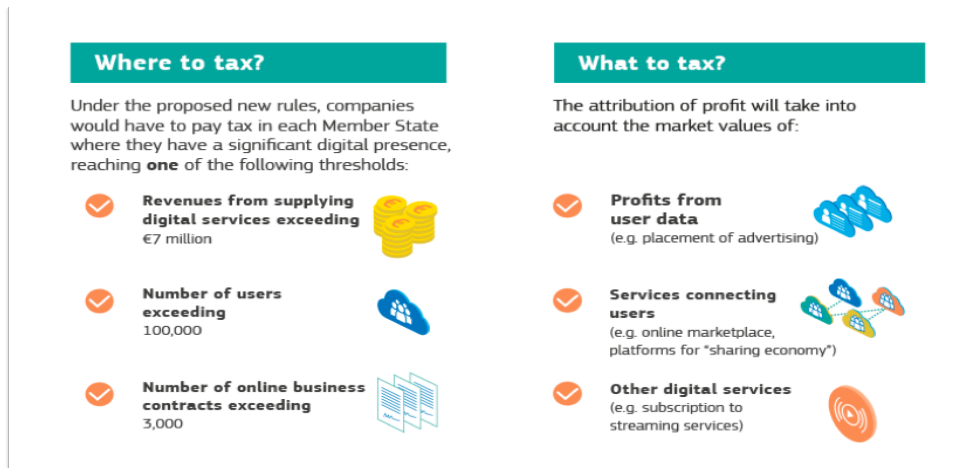
Answer: A

Explanation

- Recently, the office of the United States Trade Representative has initiated investigations into Digital Service taxes adopted or under consideration by 10 nations, including India, on revenues of American digital services companies like Netflix, Airbnb etc.
- DSTs are the adopted taxes on revenues that certain companies generate from providing certain digital services. E.g. digital multinationals like Google, Amazon and Apple etc.
- The 2 per cent digital services tax (DST) was introduced by the Indian government vide the 2020 Finance Act.
- USA says that India's DST discriminates against US businesses, contravenes settled principles of international tax law, and restricts US commerce.
- The report was published following an investigation conducted by USTR under section 301 of the US Trade Act, 1974, which authorises it to appropriately respond to a foreign country's action that is discriminatory and negatively affects US commerce.

- India was one of the first countries in the world to introduce a 6 per cent equalisation levy in 2016, but the levy was restricted to online advertisement services (commonly known as “digital advertising taxes” or “DATs”).
- The 2020 DST, however, is broader in scope and extends to all kinds of digital transactions.

WEF’s Recommendation



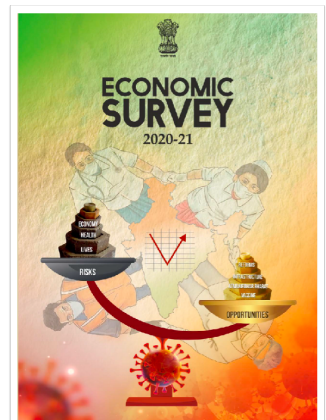
5. With reference to Indian Economy, which of the following option is correct regarding 'Interest Growth Rate Differential (IGRD)'?

- A debt on which the loan and principal collect interest is refunded in the lump sum of the amount at maturity.
- The gap between the interests charged on public debt and the average growth rate for the economy.
- The proposed principal and interest ratio is divided by the monthly gross household revenue.
- None of the above

Answer: B

Explanation

- Interest Rate Growth Rate Differential (IRGD)- It is the difference between the interest rate and the growth rate in an economy.
- A key indicator of an economy’s long-run debt sustainability is the differential between interest paid on government debt and the economy’s nominal growth rate.
- When the cost of raising debt is lower than the gross domestic product (GDP) growth rate, public debt comes with low fiscal costs. In such a situation, the debt-to-GDP ratio of the economy declines as debts are rolled over.
- Economic Survey 2020-21 examines the optimal stance of fiscal policy in India during a crisis and comes to the conclusion that it is growth that leads to debt sustainability and not necessarily vice-versa.



5. Environment

Click [here](#) to watch the following questions on YouTube

1. Which of the following statement(s) is/are incorrect regarding Tso Kar wetland?

1. It is a part of Ramsar list.
2. In 2020, it was added to Montreux Record.

Select the correct code using the options given below

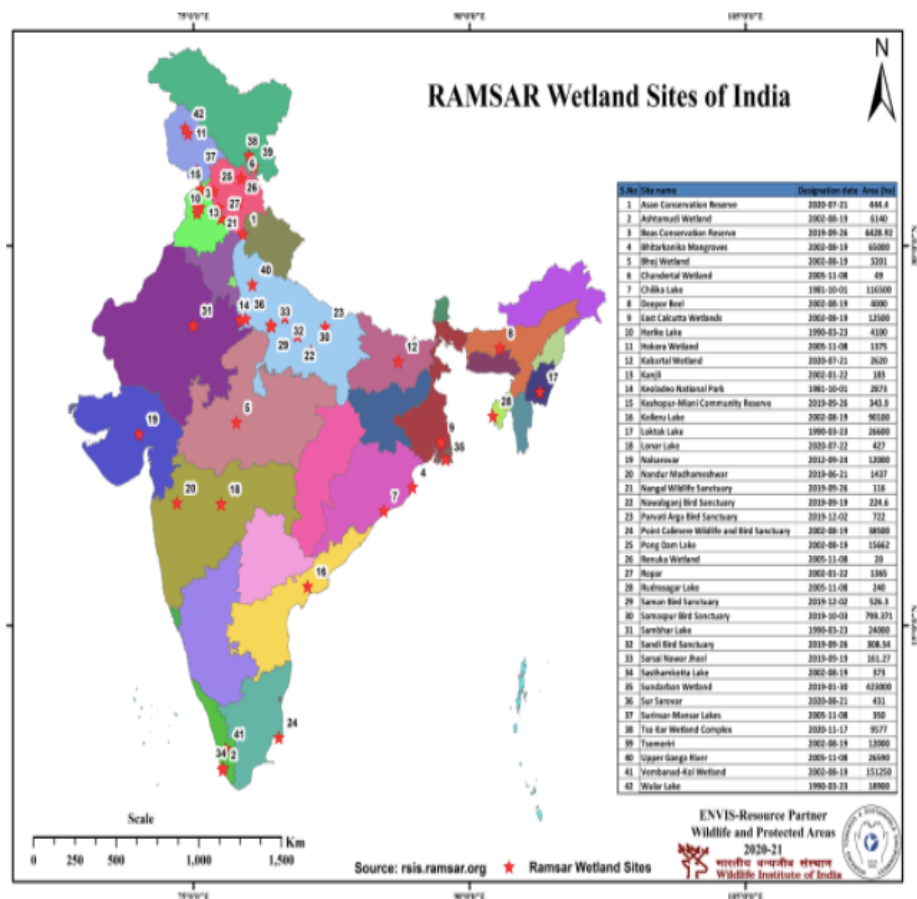
- A. 1 Only
- B. 2 Only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: B

Explanation

Second statement is incorrect.

- At present, two wetlands of India are in Montreux Record,
 - ✓ Keoladeo National Park (Rajasthan) and
 - ✓ Loktak Lake (Manipur).
- Chilika Lake (Odisha) was placed in the record but later removed from it.
- Recently, India has added Tso Kar Wetland Complex in Ladakh as its 42nd Ramsar site, a conservation status conferred by International Ramsar Convention on Wetlands.
- Previously, the Lonar lake in Maharashtra and Sur Sarovar (also known as Keetham lake) in Agra were added to the list of Ramsar sites.



2. With reference to biospheres of India, which of the following statement(s) is/are correct regarding 'Similipal Biosphere Reserve'?

1. It brought under Project Tiger in the year 1973.
2. Geographically, it lies in the eastern end of the eastern ghat.
3. In 2020, it was added to UNESCO World Network of Biosphere Reserve

Select the correct code using the options given below

- A. 1 and 2 only
- B. 2 and 3 only
- C. 2 only
- D. 1, 2 and 3

Answer: A

Explanation

- Third statement is incorrect.
- It has been part of the UNESCO World Network of Biosphere Reserve since 2009.
- Recently, a massive fire broke out in the Similipal Biosphere Reserve in Odisha.
- The core area of the biosphere was untouched by the fire, however the fire is threatening damage to its rich biodiversity.
- Similipal, which derives its name from 'Simul' (silk cotton) tree, is a national park and a tiger reserve situated in the northern part of Odisha's Mayurbhanj district.
- Similipal and the adjoining areas, comprising 5,569 sq km, was declared a biosphere reserve by the Government of India on June 22, 1994, and lies in the eastern end of the eastern ghat.
- It was declared a biosphere reserve by the Government of India in June, 1994 and has been part of the UNESCO World Network of Biosphere Reserve since 2009.

Similipal Biosphere Reserve

- It includes three protected areas – Similipal Tiger Reserve, Hadgarh Wildlife Sanctuary with 191.06 km² (73.77 sq mi) and Kuldiha Wildlife Sanctuary.
- It is the abode of 94 species of orchids and about 3,000 species of plants.
- The identified species of fauna include 12 species of amphibians, 29 species of reptiles, 264 species of birds and 42 species of mammals, all of which collectively highlight the biodiversity richness of Similipal.
- Sal is a dominant tree species.
- Similipal and the adjoining areas, comprising 5,569 sq km, was declared a biosphere reserve by the Government of India on June 22, 1994, and lies in the eastern end of the eastern ghat.
- This protected area is part of the UNESCO World Network of Biosphere Reserves since 2009.

- Eucalyptus trees planted recently in Similipal Tiger Reserve (STR) and other forests in Odisha may be among the reasons the reserve witnesses fires.
- Eucalyptus trees, which are prone to fire, were planted in large tracts of the forest by clearing medicinal plants and other native trees
 - ✓ The leaves of these contain a highly inflammatory oil that ignites easily. The trees catch fire as the ground beneath the trees is usually littered with leaves.
 - ✓ It is illegal for the forest department to plant eucalyptus trees instead of native ones such as sal, mahuli, asan, karang, arjun, jack-fruits and other trees for which the forest fire is spreading.
 - ✓ The state forest department started planting eucalyptus trees in Joshipur and Kaling forest areas of Similipal for the first time in 1977.

3. With reference to biodiversity of India, which of the following statement(s) is/are correct regarding "Caracal"?

1. In 2020, caracal has been listed as Least Concern on the IUCN Red List
2. In India, Caracals are mainly found in the Ranthambore National Park
3. They are slender, medium-sized wild cats.

Select the correct code using options given below

- A. 1 and 2 only
- B. 2 and 3 only
- C. 3 only
- D. 1, 2 and 3

Answer: D

Explanation

- Recently, the National Board for Wildlife and the Ministry of Environment, Forest and Climate Change has included the caracal in the list of critically endangered species.
- They are slender, medium-sized wild cats.
- The iconic ears give the animal its name caracal, which comes from the Turkish word 'karakulak', meaning black ears.



Caracal

- Besides India, the caracal is found in several dozen countries across Africa, the Middle East, Central and South Asia.
- While it flourishes in parts of Africa, its numbers in Asia are declining. The wildcat has long legs, a short face, long canine teeth, and distinctive

- ears – long and pointy, with tufts of black hair at their tips.
- The iconic ears are what give the animal its name – caracal comes from the Turkish karakulak, meaning 'black ears'.
- In India, it is called siya gosh, a Persian name that translates as 'black Ear'.
- It finds mention in Abul Fazl's Akbarnama, as a hunting animal in the time of Akbar (1556-1605).
- Descriptions and illustrations of the caracal can be found in medieval texts such as the Anvar-i-Suhayli, Tutinama, Khamsa-e-Nizami, and Shahnameh.

4. Recently 'Himalayan Serow' was in news. Which of the following statement(s) is/are correct regarding it?

1. They are herbivores.
2. They are included in IUCN red list vulnerable category.
3. They are found in the Trans Himalayan region.

Select the correct code from the given options

- A. 1 and 2 only
- B. 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

Answer: A

Explanation

- Third statement is incorrect.
- They are known to be found in the eastern, central, and western Himalayas, but not in the Trans Himalayan region.
- The Himalayan Serow has been spotted for the first time in Assam.
- It has been described as resembling a cross between a goat, a donkey, a cow, and a pig.
- It's a medium-sized mammal with a large head, thick neck, short limbs, long, mule- like ears, and a coat of dark hair.
- There are several species of serows, and all of them are found in Asia.
- They are herbivores, and are typically found at altitudes between 2,000 metres and 4,000 metres (6,500 to 13,000 feet). It is considered a flagship species due to its specialized habitat requirements of dense and undisturbed forests.
- The Himalayan serow, or *Capricornis sumatraensis* thar, is restricted to the Himalayan region. Taxonomically, it is a subspecies of the mainland serow (*Capricornis sumatraensis*).



- Previously assessed as 'near threatened', the Himalayan serow is now been categorised as 'vulnerable' in the IUCN Red List of Threatened Species
- It is listed under Schedule I of The Wildlife Protection Act, 1972, which provides absolute protection.
- CITES - Appendix I

5. Which of the following statement(s) about World Sustainable Development Summit 2021 is/are correct?

1. The theme of the Summit "World Sustainable Development Summit 2021" was 'Redefining our common future: Safe and secure environment for all'.
2. It is organised by TERI.

Select the correct code from the given options

- A. 1 Only
- B. 2 Only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: C

Explanation

- Recently, the Prime Minister inaugurated the World Sustainable Development Summit 2021.
- The theme of the Summit is 'Redefining our common future: Safe and secure environment for all'.
- It s the annual flagship event of The Energy and Resources Institute (TERI). Instituted in 2001, the Summit series has marked 20 years in its journey of
 - making 'sustainable development' a globally shared goal.The Prime Minister emphasised climate justice for fighting against climate change.
- Climate justice is inspired by a vision of trusteeship - where growth comes with greater compassion to the poorest.
- Climate justice also means giving developing countries enough space to grow.
- The country is committed to reducing the emissions intensity of GDP by 33 to 35 percent from 2005 levels.

6. Science & Technology

Click [here](#) to watch the following questions on YouTube

1. Which of the following have been correctly matched?

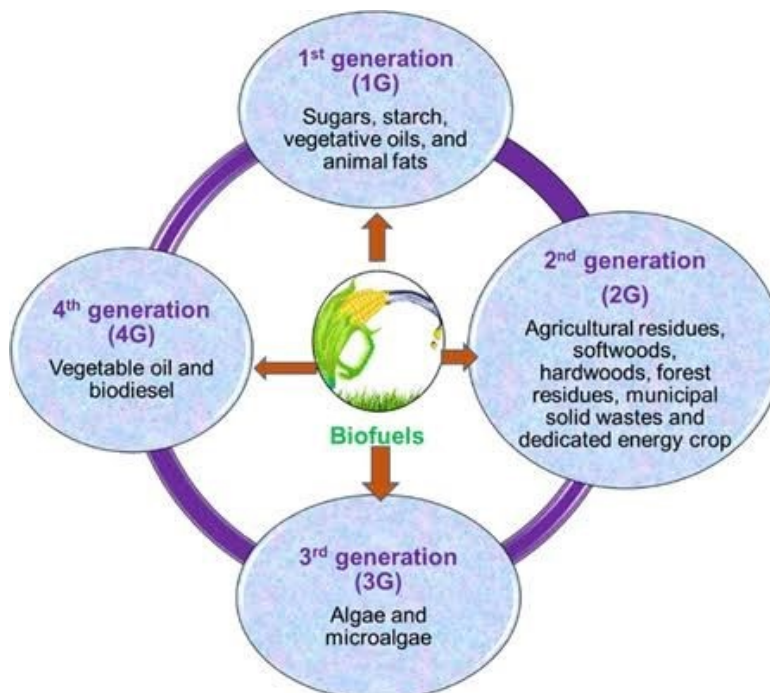
1. 1st generation biofuels: Made from a feedstock that can also be consumed as a human food
2. 2nd generation biofuels: Produced from sustainable feedstock
3. 3rd generation biofuels: Crops that are genetically engineered to take in high amounts of carbon are grown and harvested as biomass.
4. 4th generation biofuels: Are biofuel derived from algae.

- A. 1, 2 and 3 only
- B. 2 and 4 only
- C. 1 and 2 only
- D. All of the above

Answer: C

Explanation

- Union Minister of Petroleum & Natural Gas flagged off the first supply of UCO (Used Cooking Oil) based Biodiesel blended Diesel.



2. Which of the following statements about Venus are correct?

1. Venus is the only planet that rotates from east to west i.e has backward rotation.

2. Venus has an active surface, including volcanoes.

A. 1 only

B. 2 only

C. Both 1 and 2

D. Neither 1 nor 2

Answer: B

Explanation

- The researchers transmitted radio waves toward Venus 21 times from 2006 to 2020 from NASA's Goldstone Antenna in the Mojave Desert of California and studied the radio echo, which provided information on certain planetary traits.
- The study measured the tilt of the Venusian axis and size of the planet's core.
- A single Venusian rotation takes 243.0226 Earth days. That means a day lasts longer than a year on Venus, which makes a complete orbit around the sun in 225 Earth days.
- The Venusian planetary core has a diameter of about 4,360 miles (7,000 km), comparable to Earth's core.
- The study calculated the Venusian tilt at about 2.64 degrees.
✓ Earth's is about 23.5 degree
- Venus, the second planet from the sun, is similar in structure but slightly smaller than Earth. It is the hottest planet in the solar system.
- It has an active surface, including volcanoes and doesn't have any moons
- Above its foreboding landscape is a thick and toxic atmosphere that consists primarily of carbon dioxide, with clouds of sulphuric acid droplets.
- With a runaway greenhouse effect, its surface temperatures reach 880 degrees Fahrenheit (471 degrees Celsius), hot enough to melt lead.
- Venus is one of just two planets that rotate from east to west. Only Venus and Uranus have this "backwards" rotation.

3. Which of the following statements about (OSIRIS- REx) are correct?

1. It is the first-ever US mission designed to visit an asteroid and return a sample of its dust back to Earth.

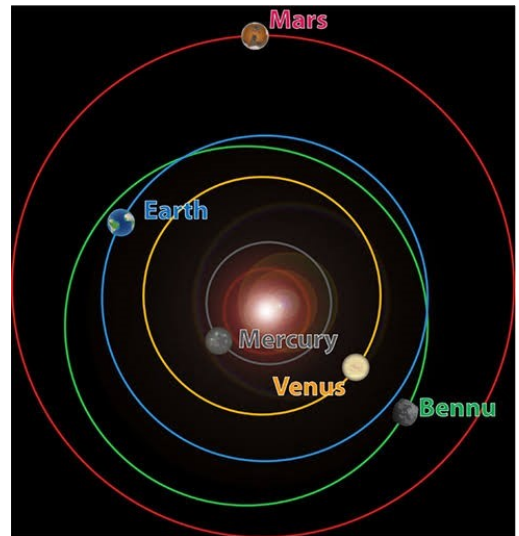
2. OSIRIS-REx program is the part of NASA's New Frontiers program

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

Answer: C

Explanation

- Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer is the third mission in NASA's New Frontiers program, which previously sent the New Horizons spacecraft zooming by Pluto and the Juno spacecraft into orbit around Jupiter.
- OSIRIS-Rex is the first-ever US mission designed to visit an asteroid and return a sample of its dust back to Earth.
- Bennu is considered to be an ancient asteroid that has not gone through a lot of composition-altering change through billions of years, which means that below its surface lie chemicals and rocks from the birth of the solar system.



4. Which of the following statements are correct about Uranium?

1. The largest source of uranium comprises the monazite sands.
2. Depleted uranium is used as shield against radiation.
3. It is naturally formed in the earth's crust

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. None of the above

Answer: A

Explanation

- The Maharashtra Anti-Terrorism Squad (ATS) has arrested two persons with 7 kg natural uranium estimated to be worth around Rs 21 crore.
- They were arrested under the Atomic Energy Act of 1962 for possessing uranium without licence.
- Uranium occurs naturally in low concentrations in soil, rock and water and is commercially extracted from uranium-bearing minerals.
- It is only naturally formed in supernova explosions.

- In India, Uranium deposits occur in the Dharwar rocks. It occurs along the Singbhum Copper belt (Jharkhand); Udaipur, Alwar and Jhunjhunu districts of Rajasthan, Durg district of Chhattisgarh, Bhandara district of Maharashtra and Kullu district of Himachal Pradesh
- Reserves were recently discovered in parts of Andhra Pradesh and Telangana between Seshachalam forest and Sresailam (Southern edge of Andhra to Southern edge of Telangana)

5. Which of the following is a correct description of Oort Cloud?

- A. Near Surface clouds formed due to Air Pollution
- B. Clouds formed during the process of inducing artificial rain
- C. Cloud surrounding the Solar System
- D. Toxic clouds covering the planet Venus.

Answer: C

Explanation

- The Oort cloud first described in 1950 by Dutch astronomer Jan Oort, is a theoretical cloud of predominantly icy planetesimals proposed to surround the Sun at distances ranging from 2,000 to 200,000 au.
- It is divided into two regions: a disc-shaped inner Oort cloud and a spherical outer Oort cloud.
- Both regions lie beyond the heliosphere and in interstellar space.
- The Kuiper belt and the scattered disc, the other two reservoirs of trans-Neptunian objects, are less than one thousandth as far from the Sun as the Oort cloud.

