



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

1. With reference to GIAN programme, consider the following statements:

1. Its goal is to bolster the quality of higher education through international partnerships.
2. IIT Madras serves as the nodal agency for overseeing the program.

Identify the correct statement/s:

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

Answer: (a)

Explanation:

Statement 1 is correct: In 2015, the Global Initiative of Academic Networks (GIAN) in Higher Education was launched under the Ministry of Education. Its aim is to leverage the expertise of scientists and entrepreneurs worldwide, encouraging their involvement with Indian higher education institutes. This initiative seeks to enhance India's academic resources, expedite quality improvements, and raise its scientific and technological prowess on the global stage. The primary goal is to bolster the quality of higher education through international partnerships.

Statement 2 is incorrect: IIT Kharagpur serves as the nodal agency for overseeing the program.

2. Consider the following phenomena:

1. Size of the sun at dusk
2. Colour of the sun at dawn
3. Moon being visible at dawn
4. Twinkle of stars in the sky
5. Polestar being visible in the sky

Which of the above are optical illusions?

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

Answer: (c)

Explanation:

Size of the sun at dusk – This is an optical illusion. The sun only appears larger at dusk because of how our eyes perceive objects near the horizon, not because of an actual change in size.

Colour of the sun at dawn – The reddish hue of the sun at dawn and sunset is also an optical illusion

caused by the scattering of light through the atmosphere at low sun angles. The sun does not actually change color.

Moon being visible at dawn – Seeing the moon in the daytime sky during dawn and dusk is not an optical illusion. It is visible at these times because of its actual position in the sky during the day as the sun is rising/setting. While less common, it can happen and is not illusory.

Twinkle of stars in the sky – The twinkling of stars is an optical illusion caused by atmospheric turbulence and refraction of starlight. The stars themselves do not actually twinkle or change brightness.

Polestar being visible in the sky – The visibility of the Polestar (Polaris) in the night sky is not an illusion. It remains visible much of the night because it lies very close to the north celestial pole, so its pinpoint movement means it rarely sets or rises for most viewers.

3. Consider the following statements about Centre for Fourth Industrial Revolution (C4IR):

1. The Centre is established by World Economic Forum.
2. Hyderabad is the first city in India to host a C4IR.
3. C4IR in Hyderabad will be setup on the theme of healthcare and life sciences.

Identify the correct statement/s:

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

Answer: (b)

Explanation:

Statement 1 is correct: It is an initiative by the World Economic Forum (WEF) to establish centres that focus on harnessing the potential of the Fourth Industrial Revolution (4IR) technologies and driving collaboration between governments, businesses, and academia to address global challenges and opportunities.

Statement 2 is incorrect: WEF established a C4IR in Mumbai in 2018 on the themes of drones, artificial intelligence and blockchain technology.



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Statement 3 is correct: C4IR in Hyderabad will be setup on the theme of healthcare and life sciences.

4. Water can dissolve more substances than any other liquid because

- (a) It is dipolar in nature
- (b) It is a good conductor of heat
- (c) It has high value of specific heat
- (d) It is an oxide of hydrogen

Answer: (a)

Explanation:

The polar nature of water makes it a very good solvent for ionic and partially ionic compounds.

Water can dissolve more solvents than any other liquid because it is a **polar molecule**. This means that one end of the water molecule has a slight positive charge and the other end has a slight negative charge. This allows water to attract and pull apart other polar or ionic compounds, such as salt, sugar, and acid

5. With reference to Web 3.0, consider the following statements:

- 1. It is decentralized internet.
- 2. It enables peer to peer transactions by eliminating the role of the intermediary.
- 3. Government launched Blockchain Project to explore potential of Web3.
- 4. It depersonalizes the interaction between the user and the computer.

Identify the correct statement/s:

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

Answer: (d)

Explanation:

Statement 1 is correct: The spirit of Web3 is Decentralized Autonomous Organization (DAO). DAO is all about the business rules and governing rules in any transaction are transparently available for anyone to see and software will be written conforming to these rules.

Statement 2 is correct: With block chain, the time and place of the transaction are recorded permanently. Thus, Web3 enables peer to peer (seller

to buyer) transactions by eliminating the role of the intermediary.

Statement 3 is correct: Government launched Blockchain Project to explore potential of Web3. Project is titled ‘Design and Development of a Unified Blockchain Framework for offering National Blockchain Service and Creation of Blockchain Ecosystem’.

Statement 4 is incorrect: It allows for more intelligent, context-aware and more personalized interactions between humans and computers.

6. With reference to C. V. Raman, consider the following statements:

- 1. He was the first Asian to receive any Nobel Prize in the sciences.
- 2. Raman effect involves elastic scattering of protons.

Identify the correct statement/s:

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

Answer: (a)

Explanation:

Statement 1 is correct: C.V. Raman was one of the most famous scientists in India. He had a pioneering work on scattering of light, C.V. Raman won the Nobel Prize for Physics in 1930. He was the first Asian and first non-White to receive any Nobel Prize in the sciences.

Statement 2 is incorrect: The elastic scattering by a material is called the Rayleigh Scattering. The inelastically scattered photons are called as Raman scattered photons.

7. ‘Triclosan’, considered harmful when exposed to high levels for a long time, is most likely present in which of the following?

- (a) Food preservatives
- (b) Fruit-ripening substances
- (c) Reused plastic containers
- (d) Toiletries

Answer: (d)

Explanation:



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

It is an antibacterial and anti-fungal agent that slows or stops the growth of germs such as bacteria and mildew.

8. Ball bearings are used in bicycles, cars, etc., because

- the actual area of contact between the wheel and axle is increased
- the effective area of contact between the wheel end axle is increased
- the effective area of contact between the wheel and axle is reduced
- None of the above statements is correct

Answer: (c)

Explanation:

Ball bearings are used for multiple reasons, but the key reason is that they reduce friction between moving parts like wheels and axles. They do this by reducing the effective contact area between the parts.

The key benefits of using ball bearings are:

- They have a small contact area, so there is less surface area for friction to act on. This reduces heat and energy waste.
- They roll smoothly, transforming sliding friction into rolling friction, which is less resistant. This makes motion more efficient.
- They minimize friction in all directions since they can roll omni-directionally. This gives free rotation.
- The small, round ball bearings can move around and adjust to different forces, distributing weight and reducing wear.

9. Rainbow is produced when sunlight falls on drops of rain. Which of the following physical phenomena are responsible for this?

- Dispersion
- Refraction
- Internal reflection

Select the correct answer using the codes given below.

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

Answer: (d)

Explanation:

A rainbow is produced due to the following physical phenomena:

Dispersion: When white light from the sun enters a water droplet, the light is dispersed into the colors of the visible spectrum (red, orange, yellow, green, blue, indigo, violet) due to different wavelengths. This is known as dispersion.

Refraction: As the light is dispersed, each color is refracted at a different angle. The amount of refraction depends on the wavelength of the light. Red light is refracted the least while violet light is refracted the most. This is known as refraction.

Internal reflection: The refracted light inside the water droplet undergoes internal reflection once before emerging from the droplet. This is known as internal reflection.

10. Venkataraman Radhakrishnan received Nobel prize in:

- Physics
- Chemistry
- Medicine
- Economics

Answer: (b)

Explanation:

Venkataraman, Indian born American is a senior scientist in the Structural Division at the Medical Research Council Laboratory of Molecular Biology, in Cambridge, England. Awarded the 2009 Nobel Prize for Chemistry, along with American biophysicist and biochemist Thomas Steitz and Israeli protein crystallographer Ada Yonath, for his research into the atomic structure and function of cellular particles called ribosomes.

11. Deepfake imagery could be an imitation of:

- Face
- Body
- Speech
- Sound
- Environment

Select the correct answer using the codes below:

- 1, 2, 3, 4 and 5
- 1, 2, 3 and 4
- 1, 2 and 3



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

(d) 1, 2 and 5

Answer: (a)

Explanation:

Deepfakes refers to a video/image that has been edited using an algorithm to replace a person in the original video/image with someone else, in a way that makes the video look authentic. Deepfake imagery could be an imitation of a face, body, sound, speech, environment, or any other personal information manipulated to create an impersonation.

12. Consider the following statements about Wi-Fi Backscatter Technology:

1. It uses radio frequency signals as the power source and reuses the existing Wi-Fi infrastructure to provide internet connectivity.
2. A dedicated transmitter is not necessary for communication.
3. They have high data rate and a long transmission range.

Identify the correct statement/s:

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

Answer: (c)

Explanation:

Statement 1 is correct: It is an emerging technology that uses radio frequency signals as the power source and reuses the existing Wi-Fi infrastructure to provide internet connectivity. It can be used to power IoT applications.

Statement 2 is correct: In backscatter communication also, power is transmitted via radio waves. But, with or without the need for a dedicated transmitter. Instead, radiofrequency signals available in the vicinity, such as WiFi, and cell phone signals, are harnessed through reflection and backscatter.

Statement 3 is incorrect: Backscatter technology suffers from a reduced data rate and a shorter transmission range.

13. In the context of wearable technology, which of the following tasks is/are accomplished by wearable devices?

1. Location identification of a person

2. Sleep monitoring of a person

3. Assisting the hearing-impaired person

Select the correct answer using the code given below.

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

Answer: (d)

Explanation:

Wearable technology includes smartwatches or electronic devices. Wearable technology provides us with the ability to monitor our fitness levels, track our location with GPS, and view text messages more quickly.

14. Consider the following statements regarding Instrument Landing System (ILS):

Statement-I: It is a ground-based radio navigation system designed to help pilots.

Statement-II: With the help of ILS systems, pilots are able to understand how their aircraft is positioned with respect to an airport runway without needing to physically see it.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

Answer: A

Explanation:

Instrument Landing System is a ground-based radio navigation system that provides pilots with accurate information about their aircraft's position and alignment with the runway. It guides pilots along both horizontal and vertical axes, aiding them in maintaining the correct approach path during low-visibility conditions. With the help of ILS systems, pilots are able to understand how their aircraft is positioned with respect to an airport runway without



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

needing to physically see it. This system warns pilots in case their jets are not flying to meet the runway's centreline. It will also warn pilots in case their jets are too low or too high and thus, at the risk of undershooting or overshooting the runway. Both of these tasks performed by the Instrument Landing System are crucial in ensuring landing in cases where the pilots aren't able to see the runway clearly. In addition to ILS, modern aircraft are equipped with advanced avionics and autopilot systems that enhance precision during foggy landings. Hence, both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.

15. Consider the following statements:

Statement-I: Hydrogen is abundant in the universe, but on earth it is found in relatively small amounts.

Statement-II: It exists primarily in the form of water (H₂O), hydrocarbons and in trace amounts in the atmosphere.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

Answer: B

Explanation:

Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I

Although hydrogen is the most abundant element in the universe (accounting for about 75% of all matter), it is relatively less abundant on Earth because it is very light and can easily escape the planet's gravity. Statement-I correct.

Hydrogen is primarily found on Earth in the form of water (H₂O), hydrocarbons like methane and natural

gas, and in trace amounts in the atmosphere as water vapor. Hence, Statement-II correct.

Statement-II not accurately explains why hydrogen is found in relatively small amounts on Earth despite being the most abundant element in the universe.

16. Consider the following statements about the recommendations of Simon Commission

- 1. Abolition of Diarchy and establishment of representative government in the provinces
- 2. Delegation of subject of Defence to Indian Councils instead of retain by governor general
- 3. Introduction of Federal form of government through government of Indian Act: 1935
- 4. Indian Army should be indianised

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: b (Only two)

Statement 1 is correct: It proposed the abolition of dyarchy and the establishment of representative government in the provinces which should be given autonomy. It said that the governor should have discretionary power in relation to internal security and administrative powers to protect the different communities. The number of members of the provincial legislative council should be increased.

Statement 2 is incorrect: The report rejected parliamentary responsibility at the centre. The governor-general was to have complete power to appoint the members of the cabinet and also over defence, communication and external relations. And the Government of India would have complete control over the high court.

Statement 3 is incorrect: It accepted the idea of federalism but not in the near future; it suggested that a Consultative Council of Greater representatives of both the British provinces as well as princely states. However, it doesn't specify any time line for introduction of federalism in India

Statement 4 is correct: It also suggested that the Indian army should be Indianised though British forces must be retained.



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

17. Consider the following statements about Khilafat movement

1. It was launched against the poor treatment meted out to the Ottoman Empire after the first World War
2. Its prominent leaders were Maulana Shaukat Ali and Maulana Abul Kalam Azad.
3. One of the demand of this movement was to ensure Khalifa must retain control over all Muslim holy places
4. The movement was not supported by Gandhiji in order to prevent communalisation of Indian National Movement.

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Statement 1 is correct: All India Khilafat Committee was formed at Bombay in 1919. Committee launched the Khilafat movement to protest against the poor treatment meted out to Ottoman Emperor after the first world war. He was still regarded as the Khalifa or the spiritual head of the Islamic world.

Statement 2 is correct: Its founding members were: Maulana Mohammad Ali Jauhar and his brother Maulana Shaukat Ali along with some other Muslim leaders such as Dr. Mukhtar Ahmed Ansari. Raees-ul-Muhajireen Barrister Jan Muhammad Junejo, Hasrat Mohani, Maulana Abul Kalam Azad, Dr. Hakim Ajmal Khan etc.

Statement 3 is correct: The movement had three main demands:

- The Khalifa must retain control over the Muslim holy places.
- He must be left with his pre-war territories so that he could maintain his position as the head of the Islamic world
- The jazirat-ul-Arab (Arabia, Syria, Iraq and Palestine) must not be under the non-Muslim sovereignty

Statement 4 is incorrect: Though the Khilafat issue was not directly linked to Indian politics, Gandhiji saw in it an opportunity of cementing Hindu-Muslim unity against the British by launching a non-

cooperation movement. The Khilafat Committee started a campaign of non-cooperation and the movement was formally launched in August 1920.

18. In the context of the modern history of India, the Muddiman Committee of 1924 was related to

- (a) Constitutional reforms
- (b) Educational reforms
- (c) Police reforms
- (d) Social Sector reforms

Ans: a (Constitutional reforms)

Explanation: The Muddiman Committee, 1924 was a committee appointed by the Government of India in early 1924 with the terms of reference of making an empirical investigation into the working of the Constitution as set up in 1921 under the India Act of 1919, and making appropriate recommendations for the consideration of the authorities. The official designation of the committee was the Reforms Enquiry Committee, but it came to be known as the Muddiman Committee after the name of its chairman, Sir Alexander Muddiman, who was then a Home Member of the Government of India.

The Committee submitted its divided report in December 1924. The majority suggested only minor changes in the structure of the Constitution while the minority, consisting entirely of non-official Indians, condemned the dyarchy and advocated for its immediate abolition and democratisation of the Constitution. No effect was however given to the recommendations of the Committee.

19. Which of the following Congress leaders was/were opposed to office acceptance after the provincial elections of 1937?

1. J.B. Kriplani
2. Jawaharlal Nehru
3. Rajendra Prasad

Select the correct answer using the codes given below?

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

Ans: b (Only 2)



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Explanation: Jawaharlal Nehru, Subhas Bose, the Congress Socialists and the Communists were totally opposed to office acceptance and thereby working of the 1935 Act. Nehru explained, "Office acceptance will not add to our real strength, it will only weaken us by making us responsible for many things that we utterly dislike". The counter strategy that Nehru and the leftists suggested was the older, Swarajist one: enter the assemblies with a view to creating deadlocks and making the working of the Act impossible.

Rajendra Prasad and J.B. Kriplani represented the right wing of the Congress that supported the office acceptance. Rajendra Prasad and Patel moved a resolution on 'conditional acceptance' of office, in the AICC session of March 1937, which was accepted.

Kriplani at the Lucknow session of Congress in 1936 supported office acceptance by arguing that even in a revolutionary movement there may be a time of comparative depression and inactivity. At that time whatever programmes are devised have necessarily an appearance of reformatory activity but they are part of all revolutionary strategy.

20. Consider the following statements about the Common demands put forward by Congress-League pact of 1916

1. Self-government for Indians
2. All members of viceroy executive council should be Indians
3. Expansion of legislative council with elected majority

Which of the statements given above are correct?

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

Ans: b (1 and 3 only)

Explanation: The Lucknow Congress of 1916 was significant for the famous Congress League Pact, popularly also known as the Lucknow Pact. Both Tilak and Annie Besant had played a leading role in bringing about this agreement between the Congress and the League, much against the wishes of many important leaders, including Madan Mohan Malaviya. The Lucknow Pact in 1916 offered a joint League-Congress scheme for constitutional

reforms, demanding representative government and dominion status for India. The principle of separate electorate was accepted, and proportional representation in both imperial and provincial legislature was agreed upon.

The joint demands were:

- Government should declare that it would confer self-government on Indians at an early date.
- Further expansion of legislative councils with an elected majority and more powers should be given to them.
- Half of the members of the Viceroy's Executive council should be Indians.

21. The Industrial Disputes Act of 1938 provided for

- (a) An intervention of the Court of Industrial Arbitration in the event of an industrial dispute
- (b) Right to strike to the workers, but for a maximum period of 3 months.
- (c) Exclusive jurisdiction to the British Courts to hear the industrial dispute cases originated in Britishers owned companies.
- (d) Arbitrary powers to the management to resolve industrial disputes

Ans: a (An Intervention of the Court of Industrial Arbitration in the event of an industrial dispute)

Explanation: In November 1938, the Governments passed the Industrial Disputes Act which was based on the philosophy of 'class collaboration and not class conflict,' as the Premier B.G. Kher put it. The emphasis in the Act was on conciliation, arbitration and negotiations in place of direct action. The Act was also designed to prevent lightning strikes and lockouts. The Act empowered the Government to refer an industrial dispute to the Court of Industrial Arbitration. No strike or lockout could occur for an interim period of four months during which the Court would give its award.

22. With reference to the modern history of India, 'Day of Deliverance (Youm-e-Nijat)' is associated with

- (a) Announcement of Mountbatten Plan in 1947.



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

(b) Lahore Resolution adopted by Muslim League in 1940.

(c) Direct Action Day which witnessed widespread communal riots in the city of Calcutta

(d) Resignation of Congress Ministries in 1939

Ans: d (Resignation of Congress Ministries in 1939)

Explanation: The Congress ministries resigned in 1939 to protest against the Viceroy's declaration to make India a party to the Second World War without the approval of people. Subsequently, Muhammad Ali Jinnah (chief of Muslim League) called upon Indian Muslims to celebrate 22 December, 1939 as a Deliverance Day (Youm-e-Nijat) to celebrate the resignation of the rival Congress party from provincial and central offices. Muslim League tried to bring to light the grievances of Muslims and Muslim groups in Indian states run by Congress governments by documenting pro-Hindu and anti-Muslim bias under Congress governments.

23. With reference to the Civil Disobedience Movement (CDM) and the Non-Cooperation Movement (NCM), consider the following statements

1. With reference to the Civil Disobedience Movement (CDM) and the Non-Cooperation Movement (NCM), consider the following statements
2. Unlike NCM, there was large scale Muslim participation in CDM

Which of the statements given above are correct?

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

Ans: D (Neither 1 nor 2)

Statement 1 is incorrect: There were certain aspects in which the Civil Disobedience Movement differed from the NonCooperation Movement. The stated objective in CDM was complete independence and not a vaguely-worded swaraj.

Statement 2 is incorrect: The methods involved violation of law from the very beginning and not just non-cooperation with foreign rule. There was a decline in the forms of protests involving the intelligentsia, such as lawyers giving up practice,

students giving up government schools to join national schools and colleges. Muslim participation was nowhere near that in the Non-Cooperation Movement level.

24. In response to the Nehru Report of 1928, Muhammad Ali Jinnah gave fourteen points as the basis of future propaganda of the Muslim League. Which of the following was/were part of the fourteen points?

1. Federal Constitution with residual powers to provinces
2. One-third Muslim representation in the central legislature.
3. Full religious freedom to all communities
4. No bill should be passed unless two-third of minority community approves it

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Explanation: In response to the recommendations of the Nehru report of 1928, Muhammad Ali Jinnah went back to the Shafi faction of the Muslim League and in March 1929 gave fourteen points which were to become the basis of all future propaganda of the Muslim League. The fourteen points were as follows.

- Federal constitution with residual powers with provinces
- No constitutional amendment by the centre without the concurrence of the states constituting the Indian federation
- All legislatures and elected bodies to have adequate representation of Muslims in every province without reducing a majority of Muslims in a province to a minority or equality
- Adequate representation to Muslims in the services and in self-governing bodies and government services
- In any cabinet at the centre or in the provinces, one-third to be Muslims.
- No bill or resolution in any legislature to be passed if three-fourths of a minority



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

community consider such a bill or resolution to be against their interests

- Any territorial redistribution not to affect the Muslim majority in Punjab, Bengal and NWFP
- Separation of Sindh from Bombay.
- Protection of Muslim rights in religion, culture, education and language

25. Consider the following pairs about the Newspapers/Journals and their authors/publishers/started by

News Paper	Started by
Al-Hilal	Bal Gangadhar Tilak
Free Hindustan	Tarak Nat Das
Swadesh Sevak	G.D. Kumar
Zamindar	Muhammad Ali Zafar

How many pairs given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Pair 1 is incorrectly matched: Maulana Abul Kalam Azad, the country's first Education Minister, freedom fighter and Islamic scholar, came out with the first edition of his newspaper Al-Hilal on 13 July 1912. It was an Urdu weekly from Calcutta, launched to reach out to Muslims and change their attitude towards foreign rule.

Pair 2 is correctly matched: Tarak Nath Das, an Indian student, and one of the first leaders of the Indian community in North America to start a paper in english called Free Hindustan to condemn policies of the British Indian government and encourage resistance.

Pair 3 is correctly matched: G.D. Kumar set up Swadesh Sevak Home in Vancouver on the lines of the India House in London and also began to bring out a Gurmukhi paper called Swadesh Sevak which advocated social reform and also asked Indian troops to rise in revolt against the British.

Pair 4 is correctly matched: Zamindar a Urdu daily news paper was published by Muhammad Ali Zafar

26. Consider the following passage:

"It was a manifestation of England's conciliatory mood owing to Germany's success in a second world war. It proposed dominion status for India and expansion of viceroy's executive council with Indians in the majority. It recognized the inherent right of Indians to frame their own constitution for the first time. It was rejected by both Congress and Muslim League."

The above passage describes which of the following?

- (a) August Offer, 1940
- (b) Cripps Mission, 1942
- (c) Wavell Plan, 1945
- (d) Cabinet Mission, 1946

Ans: a (August Offer, 1940)

Explanation: The August Offer, 1940 was a manifestation of England's conciliatory mood owing to Hitler's astounding success and the fall of Belgium, Holland and France. The major proposals included:

- Dominion status as the objective for India
- Expansion of viceroy's executive council which would have a majority of Indians
- Setting up of a constituent assembly after the war
- No future constitution to be adopted without the consent of minorities.

The offer for the first time recognized the inherent right of Indians to frame their constitution and the Congress demand for a constituent assembly was conceded. It was rejected by Congress because it didn't propose Complete Independence and only talked about Dominion status. On the other hand, while Muslim League welcomed the veto assurance given to the League, it rejected the offer as it didn't not advocate partition and two-nation theory.

27. The object of the Shore Committee of 1914 was to

- (a) Extend the provision of separate electorates, initially given only to the Muslims
- (b) Extend the provision of separate electorates, initially given only to the Muslims
- (c) Ascertain the rights of the passengers in the Komagata Maru ship
- (d) Enhance Indian participation in the World War I



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Ans: c (Ascertain the rights of the passengers in the Komagata Maru ship)

Explanation: In March 1914, the ship, Komagata Maru had begun its fateful voyage to Canada. Canada had imposed very strict restrictions on Indian immigration by means of a law that forbade entry to all, except those who made a continuous journey from India. When the ship arrived in Vancouver, it was not allowed into the port and was cordoned off by the police. To fight for the rights of the passengers, a Shore Committee was set up under the leadership of Husain Rahim, Sohan Lal Pathak, and Balwant Singh, funds were raised, and protest meetings organized.

28. Consider the following statements about Indian Councils Act of 1909

1. It made provision for additional representation of Muslims as well as the Europeans in the legislative councils.
2. The legislative councils could not discuss the relation of Government of India with the princely states
3. Indian can ask questions on interest paid on debt

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) None

Ans: b (Only two)

Statement 1 is correct: The Indian Councils Act of 1909 (Morley-Minto Reforms) provided for limited self-government and therefore satisfied none of the Indian political groups. It was the most short-lived of all constitutional reforms in British India and had to be revised within ten years. It did allow somewhat greater power for budget discussion, raising questions and sponsoring resolutions to members of legislative councils, who were to be elected for the first time.

Special provision was made for additional representation of professional classes, the landholders, the Muslims, as well as European and Indian commerce.

Statement 2 is correct: Under the Act the members could not discuss foreign relations of Government of India and its relation with the Indian princes.

Statement 3 is incorrect: The matters under adjudication of a Court of law, expenditure on state railways, interest on debt etc could not be discussed by Indian members.

29. Consider the following statements regarding C. Rajagopalachari Formula

1. It provided for an equal number of persons to be nominated by the Congress and the League in the Central Legislature.
2. It provided for a common centre entrusted with the responsibility of defence, commerce and communications.

Which of the statements given above are correct?

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

Ans: b (Only 2)

Statement 1 is incorrect: The C. Rajagopalachari Formula didn't provide for an equal number of persons to be nominated by the Congress and the League in the Central Legislature. This provision was provided for Desai Liaquat Pact

Statement 2 is correct: C. Rajagopalachari (CR), the veteran Congress leader, prepared a formula for Congress-League cooperation in 1944. It was a tacit acceptance of the League's demand for Pakistan. Gandhi supported the formula. The main points in the Plan were:

- Muslim League to endorse Congress demand for independence.
- League to cooperate with Congress in forming a provisional government at centre.
- After the end of the war, the entire population of Muslim majority areas in the North-West and North-East India to decide by a plebiscite, whether or not to form a separate sovereign state.
- In case of acceptance of partition, agreement to be made jointly for safeguarding defence, commerce, communications, etc.

30. Consider the following statements about the Mohammedan Association



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

1. The association was established Sir Sayyed Ahmad Khan in the region of Bengal.
2. Its objective was to promote the interests of the Muslim community and being loyal to the British government
3. The association condemned the revolt of 1857.
4. Sir Sayyed Ahmad Khan organised All India Muhammadan Educational Conferences to ensure modern education and political unity among Muslims

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: d (All four)

Statement 1 is correct: The first Muslim organisation in Bengal was the Mohammedan Association or the Anjuman-i Islami, established in 1855.

Statement 2 is correct: It had two-fold objective of promoting the interests of the community and preaching loyalty to the British.

Statement 3 is correct: In a petition to the Lieutenant Governor, it demanded "no exclusive privilege, but a fair field" to compete on equal terms with the Hindus. To ensure this it advocated special measure to spread education, expressed loyalty to the Raj and condemned the revolt of 1857.

Statement 4 is correct: In 1878, Sir Syed was nominated to the Viceroy's Legislative Council. He testified before the education commission to promote the establishment of more colleges and schools across India. At the start of his political career, Sir Syed was an advocate of Hindu-Muslim unity and India's composite culture, wanting to empower all Indians. In the same year, Sir Syed founded the Muhammadan Association to promote political co-operation amongst Indian Muslims from different parts of the country. In 1886, he organised the All-India Muhammadan Educational Conference in Aligarh, which promoted his vision of modern education and political unity for Muslims. His works made him the most prominent Muslim politician in 19th century

India, often influencing the attitude of Muslims on various national issues.

31. Consider the following statements about the Mohammad Bin Tughlaq

Statement I: He recruited over 3 Lakh army and paid one year salary in advance

Statement II: He had a plan to conquer the entire world

Which one of the following is correct in respect of the above statements?

- (a) Both statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

Ans: a (Both Statement I and Statement II are correct and Statement II is the correct explanation for Statement I)

Statement I & 2 are correct: Plans of Conquest: Mohammad bin Tughlaq ambition was to conquer the entire world. For this he recruited an army of 3.7 Lack and paid one year salary in advance. However, due to financial pressure following the taxation on Doad and token currency, he abandoned the project and disbanded the army.

32. He was a well-known poet who wrote under the pen name Gulruk, He was also a supporter of education and had medical text written in Sanskrit translated into Perisan.

The above description is related to which of the following king?

- (a) Sikandar Lodi
- (b) Ibrahim Lodi
- (c) Mohammad Bin Tughlaq
- (d) Alauddin-Kilji

Ans: a (Sikandar Lodi)

Explanation: Sikandar lodi is primarily known for his administrative and military skills rather than his literary pursuits. He contributed to the development



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

of Lodi dynasty and made notable achievements in the fields of architecture and infrastructure. He constructed the present-day city of Agra. He wrote Persian poetry in the pen name of Gulrukhi.

33. Consider the following statements about the administration during the Delhi Sultanate

1. There is a clear-cut law on succession and eldest son is default ruler after his father
2. Naib was the most powerful office next to Sultan
3. Diwan-i-Rasalat was a department of correspondence
4. The village headman was known as muqtis

How many of the statements given above are incorrect?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Statement 1 is incorrect: During the Delhi Sultanate period there is no clear-cut succession law. All the sons had equal claim to the throne.

Statement 2 is correct: The post of Naib was the most powerful one. The Naib practically enjoys all the powers of the sultan exercised general control over all the departments.

Statement 3 is incorrect: Diwan-i-Rasalat was the department of religious affairs, which dealt with pious foundations and gave stipends to deserving scholars and men of piety.

Statement 4 is incorrect: The lowest level in administration was village which was headed by village headmen known as muqaddam or Chaudhri.

34. Consider the following statements about the Delhi Sultanate age/period.

1. Sarais or rest houses were maintained during the Muhammad bin Tughlaq period.
2. Wearing of purdah became widespread among the Hindu upper-class women during this time
3. New musical instruments such as Sarangi, Veena and Rabab were introduced during this period

4. Ziauddin Barani wrote Tabaqat-i-Nasari

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: b (Only two)

Statement 1 is correct: Sarais are the rest houses constructed along the highways by Muhammad bin Tughlaq.

Statement 2 is correct: The Arabs and Turks brought the purdah system into India and the seclusion of women, and the wearing of purdah became widespread among the women in the upper Hindu classes of north India.

Statement 3 is incorrect: New musical instruments such as Sarangi and the Rabab were introduced during this period. However, Veena was in existence in India at-least since 1000 CE.

Statement 4 is incorrect: Ziauddin Barani was known political thinker and philosopher worked under the Muhammad bin Tughlaq and Firoz shah Tughlaq. He was best known for composing the Tarikh-i-Firoz shahi was a work on medieval India, which covers the history between the Giyasuddin Balban (1266) time to first regal years of Firoz shah Tughlaq (1361).

35. With reference to the "Amara-Nayaka" system during the medieval period, consider the following statements

1. It was a major political innovation of the Bahamani kingdom
2. The features of this system are said to be similar to the Iqta system of the Delhi Sultanate
3. The Amara-Nayakas were military commanders.

Which of the statements given above is/are correct?

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

Ans: a (2 and 3 only)



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Statement 1 is incorrect: The Amara-Nayaka system was a major political innovation of the Vijayanagara Empire and not the Bahamani kingdom.

Statement 2 is correct: It is likely that many features of this system were derived from the 'Iqta' system of the Delhi Sultanate.

Statement 3 is correct: The Amara-Nayakas were military commanders who were given territories to govern by raya (rulers of Vijaynagar called themselves Raya).

36. Consider the following statements about Harsha Vardhana

1. He was described as Sakalauttarapathanatha (The lord of North)
2. He was victorious against Pulkesin II in the Battle of Narmada
3. Chinese traveller Hsuan Tsang visited India during his reign
4. He wrote Priyadarshika and Ratnavali based on Bodhisattva Jimutavahana

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: b (Only two)

Statement 1 is correct: He is popularly known as Harsha and also described as Lord of North (Sakalauttarapathanatha)

Statement 2 is incorrect: The Battle of Narmada was fought between king Pulakeshin II of Chalukya dynasty and king Harshavardhana of Pushyabhuti dynasty in 619 CE on the banks of the river Narmada, India. The battle resulted in the great victory of Pulakeshin II and retreat of Harsha and his forces.

Statement 3 is correct: Chinese traveller Hsuan Tsang visited India during his reign, who left the vivid account of the beauty and prosperity of Kannauj.

Statement 4 is incorrect: Harsha was a great patron of art and learning. He was very talented himself as it is believed that he wrote three dramas Priyadarshika, Ratnavali (both romantic comedies and Nagananda (based on Bodhisattva Jimutavahana)

37. Consider the following statements about the administration of Pushyabhutis

Statement I: The administration of this empire was more feudal and decentralised

Statement II: Land grants to priests and officers in lieu of their services were practised.

Which one of the following is correct in respect of the above statements?

- (a) Both statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

Ans: a (Both statements are correct and Statement II is correct explanation to Statement I)

Statement 1 is correct: Pushyabhutis governed their empire on the same lines as Guptas except that their administration is more of feudal and decentralised.

Statement II is correct: Land grants to priests in lieu of their special services continued and it is generally presumed that land grants to officers by charters in lieu of their salary probably began with them. These grants contained the same privileges as enjoyed by Brahmadeya lands.

38. Consider the following statements about the Chalukyas

1. The founder of the Western Chalukya is Pulakeshin II
2. The founder of Eastern Chalukyas is Vishnuvardhana
3. The founder of Chalukyas of Lata is Barappa

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) None

Ans: a (Only one)

Statement 1 is incorrect: The Western Chalukyas dynasty was founded by Pulakeshin I in 535 CE. In order to acquire legitimacy and respectability claimed



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Brahmanical origin as Hariputras of the Manavya gotra.

Statement 2 is correct: Pulakeshin II had conflicts with the Pallavas of Kanchi and annexed the region between Krishna and Godavari from the Pallavas and placed it under his brother Vishnuvardhana who established the Eastern Chalukya dynasty.

Statement 3 is incorrect: Chalukyas of Lata were feudatories of Western Chalukyas and post Pulakeshin II death they started claiming independence and thus by end of 10th century established the Chalukyas of Lata dynasty by Nimbarka.

39. Consider the following statements about Pallavas of Kanchi

1. Simhavishnu was a founder of Pallava dynasty and adopted the title of 'Avanishimha'
2. Mahendravarman I was converted to Jainism under the influence of Appar
3. Mahabalipuram is known as Mamallapuram in the honour of Narasimhavarman I
4. Pallava's were overthrown by Chola King Aditya I

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Statement 1 is correct: Simhavishnu defeated the Ikshvakus and laid a firm foundation for the Pallava empire. After his victory he bore a title of Avanishimha (Lion of Earth)

Statement 2 is incorrect: Mahendravarman I was a great patron of art and himself appearing a musician. He wrote the Mattavilasa Prahasana. Earlier he was a Jaina but later took up Shaivism under the influence of Appar.

Statement 3 is correct: NarasimhaVarman constructed the Mahabalipuram port and ordered for the construction of the Rathas at Mahabalipuram. To honour his contributions Mahabalipuram is known as Mamallapuram as his other name is Mahamalla.

Statement 4 is correct: In 893CE, The pallavas were ultimately overthrown by the Chola king Aditya I and established the imperial chola.

40. Consider the following statements about Pala's of Bengal

1. The Pala kings were the followers of Buddhism particularly Mahayana and Tantric forms
2. Vikramashila monastery at Bhagalpur in Bihar was founded by Dharmapala
3. Santarakshita was a founder of Yogacara-Svatantrika-Madhyamika school of Philosophy
4. Charyapada was a first literary work in Bengali Language.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: d (All four)

Statement 1 is correct: The Pala rulers were followers of Buddhism particularly Mahayana and Tantric forms of Buddhism

Statement 2 is correct: Vikaramashila monastery at Bhagalpur in Bihar was founded by Dharmapala

Statement 3 is correct: The renowned 8th century Buddhist scholar Santarakshita who is also considered hey head behind the formation of Nalanda university. Santarakshita founded the philosophical school known as Yogacara-Svatantrika-Madhyamika which united the Madhyamaka tradition of Nagarjuna, the Yogacara tradition of Asanga and the official and epistemological thought of Dharmakirti.

Statement 4 is correct: Proto-Bengali language was developed under Pala rule as they laid the basis for the Bengali language, including its first literary work, the Charyapada.

41. Consider the following statements

1. Mesolithic people lived in permanent houses
2. Neolithic people were the first to start plant cultivation
3. Social inequalities were present in all 3 phases of stone age



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) None

Ans: d (None)

Statement 1 is incorrect: Mesolithic people lived in semi permanent and temporary settlements. Whereas the Neolithic were started living in permanent houses such as thatched huts.

Statement 2 is incorrect: Mesolithic people began to use controlled fire and in later stages started taming animals and initiated some plant cultivation though not on same scale as Neolithic age

Statement 4 is incorrect: Chalcolithic period marks the beginning of social inequalities as chiefs lived in rectangular houses whereas others lived in rounded huts.

42. Consider the following statements about Indus Valley Civilisation (IVC)

- 1. Charles Masson was the 1st explorer to find the evidences of Harappa
- 2. IVC is part of stone age
- 3. Early IVC phase was known as localisation era
- 4. Urban phase of the IVC was prominent in late IVC phase.

How many of the statements given above are incorrect?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Statement 1 is correct: In the late 1820s, Charles Masson, a British explorer in India, came across puzzling ruins and brick mounds. They were actually the first evidence of the lost city of Harappa. Almost 30 years later, in 1856, engineers discovered more bricks, which were carted off before carrying on the railway construction. Finally, in the 1920s, archaeologists started excavating and uncovering the sites of Harappa and Mohenjodaro. This is how the long-forgotten Indus Valley civilization had, at last, been discovered.

Statement 2 is incorrect: IVC forms part of the proto-history of India and belongs to the Bronze age.

Statement 3 is incorrect: Early Harappan phase was known as Regionalisation era because trade networks linked this civilization with similar distant regional civilizations.

Statement 4 is incorrect: Urban phase of the IVC was prominent in Mature phase, which shows the characteristics of a full fledged civilization.

43. Consider the following statements about Vedas

- 1. Yajur Veda mainly deals with the procedure for the performance of sacrifices
- 2. Rig Veda talks about the life of the early Vedic people
- 3. Sama Veda is in poetic form recited in temples
- 4. These Vedas were documented in Brahmi Script

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) Only four

Ans: c (Only three)

Statement 1 is correct: Yajur Veda deals with the procedure for the performance of sacrifices.

Statement 2 is correct: Rig Vedas are the earliest compositions and hence they depict the life of the early vedic people in India

Statement 3 is correct: Sama Veda is in poetic form to facilitate singing in temples and other holy places

Statement 4 is incorrect: All Vedas are transmitted orally for many centuries.

44. Consider the following statement

- 1. Bimbisara sent his royal physician Jivaka to help Pradyota
- 2. Ajathasatru annexed Kosala ruled by Prasenjit
- 3. Ashoka was known for introducing Mahashilakantaka and Rathamusala
- 4. Centuries of old rivalry between Maghada and Avanti was brought to end by Shishunaga

How many of the statements given above are correct?

- (a) Only one
- (b) Only two



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

(c) Only three

(d) All four

Ans: c (Only three)

Statement 1 is correct: Bimbisara had rivalry with Avanti's king Pradyota, but later became friends and Bimbisara even sent his royal physician Jivaka to Ujjain when Pradyota had Jaundice

Statement 2 is correct: Ajathashatru annexed Kosala ruled by Prasenjit

Statement 3 is incorrect: It is not Ashoka but Ajathashatru introduced the Mahashilakantaka and Rathamusala weapons into war fare

Statement 4 is correct: Centuries of old rivalry between Maghada and Avanti was brought to end by Shishunaga

45. Consider the following statement

1. King Porus was the only India king mentioned in Greek sources
2. Battle of Hydaspes was fought between Alexander and King Porus

Which of the above statements is/are correct?

(a) Only 1

(b) Only 2

(c) Both 1 and 2

(d) Neither 1 nor 2

Ans: c (Both 1 and 2)

Statement 1 is correct: Porus was a ruler of a small kingdom ruling between the river Jhelum and Chenab when Alexander invading India. He is the only Indian king mentioned in Greek sources. He was great warrior and exceptions war skills fought courageously with Alexander with his small army. Despite he lost, Alexander was impressed by him and thus not only reinstated him to his satrap but also gave him Hydaspes i.e area surrounding to Beas River. He was died between 321 to 315 BCE.

Statement 2 is correct: After gaining control of the including the city of Taxila Alexander advanced into Punjab, where he fought a battle against the regional king Porus. Alexander defeated Porus at the Battle of Hydaspes in 326 BC. Although victorious, the Battle of the Hydaspes was possibly also the most costly battle fought by the Alexander

45. Consider following pairs about the early Buddhist texts

Text	Importance
Milindapanho	Dialogue between Milinda and Nagasena
Visuddhimagga	Path to purity
Nidanakatha	Historical account of Buddha's life
Dipavamsa and Mahavamsa	First connected life story of Buddha

How many of the above pairs are correctly matched?

(a) Only one

(b) Only two

(c) Only three

(d) Only four

Ans: b (Only two)

Statement 1 is correct: Milindapanho written in pali, is a dialogue on various philosophical issues between the Indo-Greek king Milinda and the monk Nagasena.

Statement 2 is correct: Visuddhimagga, the path to purity written by Buddhaghosa deals with development from purity of discipline to enlightenment

Statement 3 is incorrect: Nidanakatha was first connected life story of Buddha. The life history of Gautama Buddha is known as Buddhacharita which is authored by Ashvaghosha is considered as the most sacred text in Buddhism. Jataka Kathalu is a voluminous body of literature native to India concerning the previous births of Gautama Buddha in both human and animal form.

Statement 4 is incorrect: Dipavamsa and Mahavamsa both contain historical cum mythical account of the Buddha's life, Buddhist councils, Ashoka and arrival of Buddhism to SriLanka.

46. Consider the following statements

1. Rishabanadha was first tirdankara of Jainism
2. Mahavir, the second tirdankara is a contemporary of Gautham Buddha
3. Satya, Ahimsa, Asteya, Brahmacharya and Aparigraha are 5 vows of Jainims
4. Mahavir teaching were compiled by Indrabhuti Gauthama

How many of the statements given above are correct?

(a) Only one



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Statement 1 is correct: Rishabanada was first tirdankara of Jainism

Statement 2 is incorrect: Mahavira also known as Vardhamana, was the 24th Thirthankara of Jainism. He was the spiritual successor of the 23rd Tirthankara Parshavanadha. He was also a contemporary to Gauthama Buddha

Statement 3 is correct: Mahavira taught that observance of the vows of Ahimsa in Jainism, Satya, Asteya (non-stealing), Brahmacharya, and Aparigraha (non-attachment) are necessary for spiritual liberation

Statement 4 is correct: Mahavira's teachings were compiled by Indra Bhuti Gauthama (his chief disciple) as the Jain Agamas.

47. Consider the following statements about Kautilya's Arthashastra

1. It talks about duties and obligation of king
2. Officials, advisors and checks on the government
3. Causes of impoverishment, lack of motivation and disaffection among the people
4. Marriage and divorce

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: d (All four)

Explanation: Arthashastra is an ancient Sanskrit treatise which written by Kautilya/Vishnu Gupta/Chanakya which specifies about statecraft, economic policy and military strategy and many other things.

Arthashastra was influential from 2 century BCE to 12 century CE later it was disappeared. It was rediscovered in 1905 by R. Shamasastri and its first English translation was done in 1909 by Shamasastri.

- Arthashastra talks about the following topics
- Duties and obligation of a king.

- The need for a law and economic development
- Officials, advisors and checks on government
- Causes of impoverishment, lack of motivation and disaffection among the people.
- Civil, criminal law and court system
- Marriage and Divorce
- Wildlife and forests
- On Spying, propaganda and information
- On war and peace
- On taxation

48. Consider the following statements about Kushanas

1. Kanishka was the first ruler to introduce coins with Buddha's figure
2. Kushana's were able to control the silk route, through which they exported Gold to Roman Empire
3. Kushana's are also responsible for the decline of Buddhism.
4. Kushana's adopted the polity of syncretism with adsorption.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Statement 1 is correct: Kanishka was the first ruler to introduce coins with Buddha's figures and also engraved Sakhya Buddho below it

Statement 2 is incorrect: Kushana's were able to bring ancient silk route under their control through which they exported Silk into Roman empire

Statement 3 is correct: In the 4th Buddhist council, Kanishka adopted Sanskrit to propagate Buddhism. And Since common people couldn't understand it, people started moving away from Buddhism. Hence they also played their part in decline of Buddhism.

Statement 4 is correct: Kushana's empire is a syncretic empire formed by the Yuezhi, in the bacterian territories in the early 1st century CE. Syncretism is often used to describe the product of the large-scale imposition of one alien culture, religion,



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

or body of practices over another that is already present.

49. Consider the following statements

1. The major themes of Gandhara school of art is Buddhist and style is Roman as such known as Romo-Buddhist school of art
2. The main patrons of Amaravati school of art were Satavahanas and Ikshavaku rulers
3. Madhura school of art is less detailed compared to Gandhara school
4. Gandhara school of art used Red schist in their sculptures

How many of the statements given above are incorrect?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: b (Only two)

Statement 1 is incorrect: The major theme of Gandhara School of art was Buddhist and style is Greek. Hence it also known as Graceo-Buddhist school of art.

Statement 2 is correct: The major patrons of Amaravati school of art were Satavahanas and Ikshvaku rulers

Statement 3 is correct: Madhura School of art is less detailed and less expensive compared to Gandhara school of art

Statement 4 is incorrect: The stone used for making ideals of Buddha and Boddhistavas was predominantly blue-gray schist.

50. Consider the following statements about the Sangam literature

1. Agattiyam , first known book on Tamil grammer
2. Tolkappiyar, the author of Tolkappiyar was a disciple of Agattiyar
3. Tirukkural was consider as a predecessor to all Vedas.
4. Silappadikaram deals with the love story between Kovalan and Madhavi of Kaveripattanam

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Statement 1 is correct: Agattiyam was the first known book on Tamil grammar written by Agattiyar

Statement 2 is correct: Tolkappiyar, the author of Tolkappiyar (a Tamil grammar book) was a disciple of Agattiyar

Statement 3 is incorrect: Tirukkural was a famous book on Ethics, Philosophy, Polity and love and considered as 5th Veda of Tamil Nadu

Statement 4 is correct: Silappadikaram considered as brightest star of early Tamil Literature which deals with the love story of Kovalan, who prefers a courtesan Madhavi of Kaveripattnam.

51. Consider the following statements

1. Helium is the only element that is synthesized in the interior of a sun
2. With the present technologies, hightemperature conditions for fusion reactions can be created only by exploding a Nuclear fission bomb

Which of the statements given above are correct?

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

Ans: d (Neither 1 nor 2)

Statement 1 is incorrect: Helium is not the only element that can be synthesized in the interior of a star. As the hydrogen in the core gets depleted and becomes helium, the core starts to cool. The star begins to collapse under its own gravity, increasing the core's temperature. If this temperature increases to about 108 K, fusion takes place again, this time of helium nuclei into carbon. A fusion of higher and higher mass number elements can generate this process.

Statement 2 is incorrect: The technology to create high temperature conditions fusion reaction, tokamak is an experimental machine that uses the energy produced by fusion reactions, with the energy produced by the fusion of atoms being absorbed into



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

the vessel's walls. A fusion power plant uses this heat energy to produce steam, which drives turbines to generate electricity like a conventional power plant. Thus, with the present technologies, high-temperature conditions for fusion reactions can be created not only by exploding a Nuclear fission bomb but also by thermonuclear inertial and by using a strong magnetic field.

52. 'H3 Rocket', recently seen in news is launched by?

- (a) ISRO
- (b) JAXA
- (c) NASA
- (d) ESA

Ans: b (JAXA)

Explanation: The H3 Launch Vehicle is a Japanese expendable launch system. H3 launch vehicles are liquid-propellant rockets (for main Engine) with strap-on solid rocket boosters and are launched from Tanegashima Space Center in Japan. Mitsubishi Heavy Industries (MHI) and JAXA are responsible for the design, manufacture, and operation of the H3. The H3 is the world's first rocket to use an expander bleed cycle for the first stage engine.

The H3-24 variant will deliver more than 6,000 kg (13,000 lb) of payload to lunar transfer orbit (TLI) and 8,800 kg (19,400 lb) of payload to geostationary transfer orbit (GTO).

53. 'Sora' recently seen in news is a?

- (a) Cyber-attack malware
- (b) Open AI New Video Generator
- (c) Deep fake app
- (d) New variant of Swine flu

Ans: b (Open AI New Video Generator)

Explanation: This new diffusion-based AI model of Open AI is built on the foundation of transformer architecture, similar to large language models like ChatGPT. It can create images and videos with near-accuracy on a given subject. It can construct a video from an image and also fill gaps in existing video clips.

54. Consider the following statements about Quantum computing

1. Entanglement is a quantum phenomenon in which two or more particles become connected in such a way that the state of one particle is dependent on the state of the other particle(s)
2. Quantum computers cannot be built without superconductors.
3. Quantum computing uses subatomic particles, such as electrons or photons
4. Superposition enables quantum computers to perform certain calculations much faster than classical computers, such as factorization and database search

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: c (Only three)

Statement 1 is correct: Entanglement is at the heart of quantum physics and future quantum technologies. Like other aspects of quantum science, the entanglement phenomenon reveals itself at tiny, subatomic scales. When two particles, such as a pair of photons or electrons, become entangled, they remain connected even when separated by vast distances. In the same way that ballet or tango emerges from individual dancers, entanglement arises from the connection between particles. It is what scientists call an emergent property.

Statement 2 is incorrect: Superconductivity is not a "must" for quantum computing. Many companies, including giants such as Google, IBM, and Amazon, as well as startups such as IonQ, rely on qubits based on superconducting circuits or trapped ions. One drawback with these approaches is that they demand temperatures colder than those in deep space because heat can disrupt the qubits. The expensive, bulky cryogenic systems required to hold qubits at such frigid temperatures can also make it a major challenge to scale these platforms up to high numbers of qubits—or smaller and more portable form factors. In contrast, quantum computers that depend on qubits based on photons can, in principle, operate at room temperature. They can also readily integrate into existing fiber-optic-based telecommunications



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

systems, potentially helping connect quantum computers to powerful networks and even into a quantum Internet. Scientists have developed quantum computers demonstrating quantum advantage using both cryogenic and photonic approaches.

Statement 3 is correct: Superposition and entanglement are two features of quantum physics on which quantum computing is based. They empower quantum computers to handle operations at speeds exponentially higher than conventional computers and with much less energy consumption. Quantum computers are based on quantum superposition. Superposition allows quantum objects to exist simultaneously in more than one state or location. This means an object can be in two states simultaneously while remaining a single object, allowing it to explore much richer states.

Statement 4 is correct: Quantum computing uses subatomic particles, such as electrons or photons. Quantum bits, or qubits, allow these particles to exist simultaneously in more than one state (i.e., 1 and 0).

55. Consider the following statements about BharOS

1. It is an Android Open-Source Project that is free from Google Services and Apps.
2. It employs the Private App Store Services (PASS) to curate applications for users
3. Native Over The Air (NOTA) is not supported for security reasons

Which of the statements given above are correct?

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

Ans: b (Only 2)

Statement 1 is incorrect: BharOS is an Indian government-funded project to develop a free and open-source operating system (OS). BharOS is an indigenous mobile operating system developed by IIT Madras. Technically, BharOS is very similar to Android because they share the same basics. But not as same. BharOS is different from Android because it is free from Google Services and Apps.

Statement 2 is correct: BharOS has no preinstalled apps, giving users the flexibility to download any app of their choice. BharOS will use a system known as

Private App Store Services (PASS), which will examine and curate safe apps for the users.

Statement 3 is incorrect: BharOS offers Native Over The Air (NOTA) updates that can help to keep the devices secure. These updates are automatically downloaded and installed on the device without the user manually initiating the process. This ensures that the device is always running the latest operating system version, including the latest security patches and bug fixes.

Over the air (OTA) upgrades allow Mobile Apps to receive and update their versions on Mobile devices without the need to submit those new versions to the respective store.

56. The terms “Rht13, Early Heera-2, Varuna” are sometimes seen in the news in the context of

- (a) Development of genetically modified crops
- (b) Passive Electronically Scanned Array (PESA) RADAR systems indigenously developed by India
- (c) Galaxies discovered in eXtreme Deep Field (XDF) by India
- (d) Indigenously developed nuclear powered Submarines

Ans: a (Development of genetically modified crops)

Explanation: Rht13, discovered by an international team of scientists, is a new drought-resilient semi-dwarf wheat gene that can be grown in drier soil conditions. DMH-11 is a hybrid variant of mustard developed by researchers at The Centre for Genetic Manipulation of Crop Plants at the University of Delhi. DMH-11 results from a cross between Varuna (Indian Mustard variety) and Early Heera-2 (European Mustard variety). Thus the terms Rht13, Early Heera-2, and Varuna were related to genetically modified crops.

57. Consider the following statements with reference to EQUilibriUm Lunar-Earth point 6U Spacecraft (EQUULEUS)

1. It is a nanosatellite designed jointly by NASA and the European space agency.
2. It will measure the distribution of plasma surrounding the Earth, which helps to



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

understand the region's radiation environment.

Which of the statements given above are correct?

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

Ans: b (Only 2)

Statement 1 is incorrect: For the first SLS flight, the Japan Aerospace Exploration Agency (JAXA) and the University of Tokyo will jointly create and provide two CubeSats, EQUULEUS (EQUilibrium Lunar-Earth point 6U Spacecraft) and OMOTENASHI (Outstanding MOon exploration TEchnologies demonstrated by NANO Semi-Hard Impactor). EQUULEUS (EQUilibrium Lunar-Earth point 6U Spacecraft) is a nanosatellite of the 6U CubeSat format that is designed to reach an Earth-Moon libration orbit. It is a JAXA (Japan) and University of Tokyo technology demonstration mission with the primary objective of demonstrating trajectory control techniques exploiting Sun-Earth-Moon dynamics, with the possibility of reaching an Earth-Moon libration orbit.

Statement 2 is correct: The primary objective of the spacecraft is that measures the distribution of plasma that surrounds the Earth (plasmasphere) from Earth-Moon Lagrange point L2 (EML2) to help scientists understand the radiation environment in that region in the ultraviolet band, characterize the dust environment in cislunar space, and record lunar impact flashes. It will also perform scientific observations with a suite of instruments.

58. Consider the following technologies

- 1. Internet of Things
- 2. Digital Twins
- 3. Edge Computing
- 4. Additive Manufacturing
- 5. Augmented Reality
- 6. Slide Rule
- 7. Centralised Control Systems

Which of the above are elements of Industry 4.0?

- (a) 1, 2, 3, 4 and 5
- (b) 1, 2, 3, 4, 5 and 6
- (c) 1, 2, 3, 4, 5, 6 and 7

(d) 1, 2, 3 and 4 only

Ans: a (1, 2, 3, 4 and 5)

Explanation: Known as the fourth industrial revolution, Industry 4.0 defines manufacturing technologies' automation and data exchange trends. It could bring about significant improvements in manufacturing efficiency and effectiveness. Innovation, advanced manufacturing techniques, and automation are integral parts of Industry 4.0. The key factors driving Industry 4.0 are technology advancements and workforce development, providing a competitive advantage to companies that embrace it. The nine technological pillars of Industry 4.0 are:

- Autonomous robots.
- Simulation.
- Horizontal and vertical system integration
- The Industrial Internet of Things.
- Cyber security.
- Cloud computing
- Additive manufacturing.
- Augmented reality.
- Big data and analytics.

Slide rules can be used for multiplication and division, squares, cubes, square roots, cubes roots, trig functions, and exponentials and logarithms. In a centralized version control system (CVCS) — also known as a centralized source control or revision control system — a server acts as the main centralized repository that stores every code version. The most common centralized version control systems you may have heard of or used are CVS, Subversion (or SVN) and Perforce. Thus slide rules and centralized version control system are not main elements of Industry 4.0.

59. With reference to S-400 and S-500 missile systems, consider the following statements

- 1. S-400 missile system is fully mobile and can track around 300 targets up to 600 km
- 2. S-500 is the new version that has the capability to target ballistic missiles from around 600 km
- 3. S-500 uses a combination of hypersonic and ballistic missiles



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

4. The S-400 can engage targets at an altitude of up to 30 km, while the S-500 has a maximum altitude of 180 km

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Ans: d (All four)

Statements 1 & 4 are correct: The S-400 is fully mobile, and each system has a 3D phased array acquisition radar that can track around 300 targets up to 600 km, a command and control centre, automatic tracking and targeting systems, launchers and support vehicles. Each system has four different types of missiles for up to 40 km, 120 km, and 250 km and a maximum range of 400 km and up to 30 km altitude. The different ranges and varying altitudes create a layered air defence net. An S-400 battalion has eight missile launchers, typically with four missiles each. S-500 Prometheus is a Russian anti-aircraft missile system capable of destroying enemy air and ground targets. The altitude of a target engaged can be as high as 180–200 km (110–120 mi). It is effective against ballistic missiles with a launch range of 3,500 km (2,200 mi), and the radar reaches a radius of 3,000 km

Statements 2 & 3 are correct: The S-500 Prometheus is a next-generation surface-to-air missile system with a range of 600 kilometers (370 miles). S-500 is Russia's most advanced new-generation surface-to-air missile system capable of intercepting intercontinental ballistic missiles (ICBM). It can also target hypersonic cruise missiles and can intercept ballistic missiles within a range of 600 km. It can be deployed easily and has an airborne engagement range of 400-500km. It is a universal high-altitude interception complex with an increased anti-missile defense capability designed for intercepting and destroying intercontinental ballistic missiles, hypersonic cruise missiles and stealth aircraft. Thus, S-500 is used to target hypersonic, ballistic missiles and aircraft.

60. Consider the following statements

- 1. The Aircraft Carriers of India have overall indigenous content of 76%.

- 2. The ship would be capable of operating an air wing consisting of 30 aircraft comprising of MIG-29K, Kamov-31, MH60R, Advanced Light Helicopters (ALH) and Light Combat Aircraft (LCA) (Navy).
- 3. The ship used an aircraft operation mode known as STOBAR (Short Take- Off but Arrested Landing)

Which of the following aircraft carriers has the characteristics mentioned above?

- (a) INS Vikrant (IAC-1)
- (b) INS Vikramaditya
- (c) INS Viraat
- (d) INS Vikrant (R11)

Ans: a (INS Vikrant (IA-1))

Explanation: INS Vikrant (IAC-1), the ship is powered by four Gas Turbines totaling 88 MW and has a maximum speed of 28 Knots. The Aircraft Carriers of India have an overall indigenous content of 76%. Vikrant has been built with a high degree of automation for machinery operation, ship navigation and survivability and has been designed to accommodate an assortment of fixed-wing and rotary aircraft. The ship would be capable of operating air wing consisting of 30 aircraft comprising of MIG-29K fighter jets, Kamov-31, MH-60R multi-role helicopters, in addition to indigenously manufactured Advanced Light Helicopters (ALH) and Light Combat Aircraft (LCA) (Navy). Using a novel aircraft operation mode known as STOBAR (Short Take-Off but Arrested Landing), the IAC is equipped with a ski-jump for launching aircraft and a set of 'arrestor wires' for their recovery onboard.

61. Which one of the following statements best reflects the issue with Whitsun reefs, sometimes mentioned in the news?

- (a) It is the cause of maritime disputes between China and the Philippines in the South China Sea.
- (b) The USA has recently established its naval base on these reefs in light of recent conflicts in the Mediterranean region.
- (c) A recent scientific expedition has found that it was the only reef to survive the El Nino weather in the last decade.

PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

(d) Countries have called on the International Seabed Authority to permit deep-sea mining in this region.

Answer: A

Explanation:

The South China Sea is at the centre of a territorial dispute between China, the Philippines and other countries. Whitsun Reef - which the Philippines calls Julian Felipe Reef - is around 320 km west of Palawan Island, more than 1,000 km from the nearest major Chinese landmass of Hainan Island. It is part of the Spratly Island. Recently, an incident in the Whitsun Reef sparked tensions between the Philippines and China. This occurred when hundreds of Chinese vessels entered the reef. An international tribunal invalidated China's claim to 90% of the South China Sea in 2016, but China does not recognise the ruling.



62. “Resilient Democracies Statement” is an initiative by which one of the following groupings in the context of international relations?

- (a) G-7
- (b) ASEAN
- (c) QUAD
- (d) SAARC

Answer: (b) G7

Explanation:

Option a is correct: India, along with G7 countries and four invited countries, signed the G7 joint statement on ‘Resilient Democracies’, that called for “guarding the freedom, independence and diversity of

civil society actors” and “protecting the freedom of expression and opinion online and offline”.

-These countries have reaffirmed their commitment to work towards equitable, inclusive and sustainable solutions to global challenges.

-These countries have expressed commitment to a rules-based international order.

-Principles of Resilient Democracies Statement (RDS)

-Global Responsibility: This includes promoting respect for the territorial integrity and sovereignty of other countries; Supporting democracy and free and fair elections around the world.

-Information Environment: Protecting freedom of expression and thought through online and offline means; Ensuring an open, open, global, interoperable, reliable and secure Internet, etc.

-Civil Society: This includes protecting the freedom and diversity of civil society workers; Building capacity against malicious foreign interference, etc.

-Inclusion and Equality: Protecting freedom of thought, conscience and religion/belief and promoting inter-religious dialogue; Social integration and inclusion etc. are included.

About G7:

The G7 Countries (Group of Seven) is an informal forum of seven leading industrialized countries. i.e Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States, which meet every year to discuss important issues concerning global governance and order.

Headquarters: The G7 is not based on a treaty and has no permanent secretariat or office. It is organized through a presidency that rotates annually among the member states, with the presiding state setting the group's priorities and hosting the summit; Italy presides for 2024.

63.The phrase ‘Special Safeguard Mechanism’ sometimes mentioned in the news, is in the context of which of the following institutions

- (a) G20
- (b) World Health Organisation.
- (c) World Trade Organisation.
- (d) IMF

Answer :(c) World Trade Organisation.



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Explanation:

Option c is correct: The World Trade Organization's Special Safeguard Mechanism is a special protection mechanism for developing nations that permits them to boost duties on agricultural imports that harm indigenous farmers.

-If the import spike causes welfare losses to domestic poor farmers, the contingency measure is to impose tariffs. Under the WTO, the design and usage of the SSM is a source of contention.

Safeguards, as defined by the WTO, are temporary import limitations imposed in response to unusual conditions, such as a surge in imports. An emergency restriction means imposing a tax on imports if the imports are detrimental to the local agricultural sector. Initially, the General - Agreement on Tariffs and Trade (GATT) allowed such restrictions to protect the national economy.

-The Doha Ministerial Conference made concessions for developing countries with the introduction of Special Safeguard Mechanism (SSM) to complement existing safeguards (e.g. Special Agricultural Protection or SSG).

64. Consider the following statements.

1. The Marshall Plan promoted the idea of shared interests and cooperation between the US and Europe.
2. The Vandenberg Resolution was the stepping stone to the formation of North Atlantic Treaty Organisation (NATO).

Which of the following statements are correct?

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

Answer: (c) Both 1 and 2

Explanation:

Statement 1 is correct: In the immediate post-World War II period, Europe remained ravaged by war and thus susceptible to exploitation by an internal and external Communist threat. In a June 5, 1947, speech to the graduating class at Harvard University, Secretary of State George C.

Marshall issued a call for a comprehensive program to rebuild Europe. Fanned by the fear of Communist

expansion and the rapid deterioration of European economies in the winter of 1946–1947, Congress passed the Economic Cooperation Act in March 1948 and approved funding that would eventually rise to over \$12 billion for the rebuilding of Western Europe. The - Marshall Plan generated a resurgence of European industrialization and brought extensive investment into the region. It was also a stimulant to the U.S. economy by establishing markets for American goods.

-The Marshall Plan, officially known as the European Recovery Program, was an assistance program by the United States to Europe between 1948-1951. This European Recovery Program (ERP) was launched by United States Secretary of State George Marshall on June 5, 1947. Hence, it is more commonly known as the Marshall Plan. The main objective of the Marshall Plan was to prevent the economic deterioration of Europe, the expansion of communism, and the stagnation of world trade after World War II.

Statement 2 is correct: The Vandenberg Resolution was the landmark action that opened the way to the negotiation of the North Atlantic Treaty.

-NATO is an intergovernmental military alliance based on the North Atlantic Treaty which was signed on 4 April 1949. The organization constitutes a system of collective defense whereby its member states agree to mutual defense in response to an attack by a non-member external party.

-NATO's headquarters are located at Boulevard Leopold III in the city of Brussels, Belgium, where the Supreme Allied Commander resides.

65. Lake Titicaca, the largest freshwater lake in South America, is situated between?

- (a) Bolivia and Chile
- (b) Paraguay and Argentina
- (c) Colombia and Venezuela
- (d) Peru and Bolivia

Correct Answer: D

Explanation:

Lake Titicaca is the largest freshwater lake in South America and the highest of the world's largest lakes. Titicaca lies between Andean ranges in a vast basin that comprises most of the Altiplano (High Plateau) of the northern Andes. It is located in the high Andes

PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Mountains lying astride the border between Bolivia and Peru.



66. Consider the following statements.

1. India extracts more groundwater than China and the US combined.
2. About 70% of India's water usage comes from groundwater.
3. There is no single law that governs groundwater management at the national level.

Which of the following statements are correct?

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

Answer: (d) All are correct

Explanation:

A report published, last week, by United Nations University has warned that 27 of the 31 aquifers in the country are depleting faster than they can be replenished. The alarm bells have been ringing for at least a decade. In 2016, the Mihir Shah Committee argued that there is little "understanding of river systems or their interconnections with the health of catchment areas or groundwater"

Statement 1 is correct: India pumps up the most groundwater globally — more than China and the US combined, India is the world's largest user of groundwater, accounting for one-fourth of global groundwater extraction.

Statement 2 is correct: According to the Central Ground Water Board, about 70 per cent of the water used in the country is from groundwater sources.

Statement 3 is correct: The legal and regulatory frameworks for groundwater in India are based on a number of different laws, including the Indian Easements Act, 1882, the Water (Prevention and Control of Pollution) Act, 1974, the Environment (Protection) Act, 1986, and the Model Groundwater Bill, 2017.

-However, these laws are not comprehensive and do not provide a unified framework for groundwater management.

-This lack of a single national law on groundwater management has made it difficult to develop and implement effective groundwater management policies. It has also made it difficult to enforce groundwater regulations.

-Further, the Constitution of India does not explicitly mention groundwater, but it does guarantee the right to water as a fundamental right.

67. Consider the following statements.

1. Global Minimum Corporate Tax (GMCT) is a proposed international tax reform that would set a minimum tax rate of 15% on multinational corporations.
2. It is a tax on the net revenue of multinational corporations.

Which of the following statements are correct?

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

Answer: (a) 1 only

Explanation:

Statement 1 is correct: A Global Minimum Tax (GMT) applies a standard minimum tax rate to a defined corporate income base worldwide.

The framework of GMT aims to discourage nations from tax competition through lower tax rates that result in corporate profit shifting and tax base erosion.

Statement 2 is incorrect: The OECD developed a proposal featuring a corporate minimum tax of 15% on foreign profits of large multinationals, which



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

would give countries new annual tax revenues of USD 150 billion

Objectives:

-It aims to ensure that big businesses with global operations do not benefit by domiciling themselves in tax havens in order to save on taxes.

-The minimum tax and other provisions aim to put an end to decades of tax competition between governments to attract foreign investment.

68. Consider the following statements.

1. Niemann-Pick disease results in a group of rare and inherited metabolic disorders affecting the body's ability to process lipids or fats properly.
2. It is caused by mutations in genes code for enzymes that break down cholesterol and other fatty substances.

Which of the following statements are incorrect?

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

Answer: (d) Neither 1 nor 2.

Explanation:

Parents of children suffering from Niemann-Pick disease, a rare genetic disorder affecting fat metabolism, are urging the Indian government to include it in the National Policy for Rare Diseases.

Statement 1 is correct: NPD is a rare genetic condition caused by mutations in lipid metabolism genes, leading to abnormal accumulation of sphingomyelin in cells and tissues. Niemann-Pick disease follows an autosomal recessive inheritance pattern, requiring an individual to inherit two mutated copies of the relevant gene (one from each parent) to manifest the disorder.

Statement 2 is correct: It's a type of lysosomal storage disorder where defective enzymes in lysosomes fail to break down lipids properly, resulting in organ damage and a variety of symptoms. Currently, there is no cure for Niemann-Pick disease, so treatment focuses on supportive care.

Medications and therapies are used to manage specific symptoms, such as seizures and respiratory

problems, improving the quality of life for affected individuals.

-Ongoing research efforts are exploring potential therapies, including experimental approaches like enzyme replacement therapy and substrate reduction therapy. These treatments aim to address the underlying metabolic issues, potentially providing more effective ways to manage the disease.

-Families affected by Niemann-Pick disease can benefit from genetic counseling, which offers insights into the risk of passing the condition to future generations. It also provides emotional support and information about available options, helping families make informed decisions about family planning and caregiving.

69. Consider the following statements regarding Special and Local Laws (SLL).

1. IPC provides for a range of punishments for different offenses, whereas SLLs deal with less complex issues and hence do not address punishments for offenses.
2. SLLs can influence the structure and functioning of local govts, municipalities and panchayats.

Which of the following statements are correct?

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

Answer: (b) 2 only

Explanation:

The recent criminal law Bills in India, while amending the Indian Penal Code and Code of Criminal Procedure, highlight the paramount significance of Special and Local Laws (SLLs) containing critical offenses and procedures.

Special and local laws

-Special and local laws in India are designed to cater to the unique needs of specific regions, communities, or situations within the country. These laws are localized and vary based on the cultural, social, and historical context of different regions and communities.

-These laws serve to supplement or modify the general laws applicable to the entire country. They



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

provide additional provisions or amendments to address the specific requirements of diverse communities and regions, ensuring a more tailored and context-specific legal framework.

Statement 1 is incorrect: SLLs often deal with complex and contentious issues, giving rise to fundamental debates and discussions about individual rights and civil liberties. SLLs constitute a significant share, almost 40%, of all registered offenses in India, nearly 39.9% of all Cognisable Offenses registered in 2021 were under SLLs, underscoring their quantitative importance in the criminal justice system. They do address punishments but in a varied manner. They are a substantial part of the legal landscape, impacting the overall crime statistics.

Statement 2 is correct: SLLs can influence the structure and functioning of local govts, municipalities and panchayats, as SLLs are laws, customized according to the unique needs of specific regions, communities, the local governments, decentralized ruling governments work according to the functioning of the SLLs of that region.

70. 'Hot Spots' within the earth help produce Geothermal Energy. What are these 'Hot Spots'?

- (a) Region where a chain of vents of magma are accumulated at a single place.
- (b) Regions of intense pressure inside the mantle.
- (c) Regions within the crust where hot molten rocks are trapped.
- (d) None of the above

Answer: (c) Regions within the crust where hot molten rocks are trapped.

Explanation: Geothermal energy is heat energy from the earth—Geo (earth) + thermal (heat). Geothermal resources are reservoirs of hot water that exist or are human made at varying temperatures and depths below the earth's surface. It combines energy from the formation of the planet and from radioactive decay. Geothermal energy has been exploited as a source of heat and/or electric power for millennia.

Option c is correct: Geothermal energy hot-spots: Geothermal energy is the heat stored in the earth.

-It can only be obtained from a few locations on the planet known as geothermal hotspots.

-Molten rock in the earth's crust is pushed upward and trapped in specific regions in these hotspots. Some of the prominent geothermal resources include Puga Valley and Chhumathang in Jammu and Kashmir, Manikaran in Himachal Pradesh, Jalgaon in Maharashtra and Tapovan in Uttarakhand. A new location of geothermal power energy has also been found in Tattapani in Chhattisgarh.

71. With reference to the Collegium system in India, Consider the following statements

- 1. It came into existence through First Judges Case judgments
- 2. The collegium system is based on the principle of judicial independence.

Which of the following statements are correct?

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

Answer : (b) 2 only

Explanation:

Statement 1 is incorrect: Articles 124(2) and 217 of the Indian Constitution deal with the appointment of judges to the Supreme Court and High Courts.

What is a Collegium System and How Did It Evolve?

-It is the system of appointment and transfer of judges that has evolved through judgments of the SC, and not by an Act of Parliament or by a provision of the Constitution.

-It came into existence through Second and Third Judges Case judgments.

-There is no such law or Constitutional Provision that mentions or defines the collegium system.

Head: It is headed by the CJI and comprises 4 other senior-most judges of the court.

High Court (HC) Collegium: An HC collegium is led by its Chief Justice (CJ) and four other senior-most judges of that court.

Statement 2 is correct:

Arguments Favoring the Collegium System

-Secrecy in Judicial Appointments: It is kept secret within the four walls of the body for proper and effective functioning of the institution.

However, it does not involve an official secretariat, and is regarded as a private affair, with no public



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

knowledge of how and when a collegium meets or how it makes decisions.

-Independence of Judiciary: The State shall take steps to separate the judiciary from the executive in the public services of the State (Article 50 of Constitution). It ensures the regulation of the doctrine of separation of power.

-It ensures the independence and allows the judge to perform their duty without any fear or without any interference and influence.

72. Consider the following statements.

1. The Baltic states refer to the three countries located on the western coast of the Baltic Sea.
2. All three Baltic countries are classified as low-income economies by the World Bank.
3. All three countries are members of NATO, the European Union, the Eurozone, and the OECD.

Which of the following statements are correct?

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

Answer: (c) 3 only

Explanation:

Statement 1 is incorrect: The Baltic states is a geopolitical term encompassing Estonia, Latvia, and Lithuania. The three sovereign states on the eastern coast of the Baltic Sea are sometimes referred to as the “Baltic nations”, less often and in historical circumstances also as the “Baltic republics”, the “Baltic lands”, or simply the Baltics.

Statement 2 is incorrect: All three Baltic countries are classified as high-income economies by the World Bank and maintain a very high Human Development Index. The three governments engage in intergovernmental and parliamentary cooperation. There is also frequent cooperation in foreign and security policy, defense, energy, and transportation.

Statement 3 is correct: All three countries are members of NATO, the European Union, the Eurozone, and the OECD.

73. In India, what is the role of National AI Portal of India?

1. It provides news, articles and info about AI, provides insights into the global and Indian AI landscape.

2. It aims to facilitate adoption of AI by businesses and governments in India.

Which of the following statements are correct?

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

Answer: (c) Both 1 and 2

Explanation:

Statement 1 is correct: About the National AI Portal: It is a joint initiative by the Ministry of Electronics and IT (MeitY), National e-Governance Division (NeGD) and NASSCOM.

-NeGD: In 2009, NeGD was created as an Independent Business Division under the Digital India Corporation (a not-for-profit company set up by MeitY).

-NASSCOM: A not-for-profit industry association, is the apex body for the IT and IT enabled products and services sector in India.

-It serves as a central hub for Artificial Intelligence (AI) related news, learning, articles, events and activities etc, in India and beyond.

Statement 2 is correct: It is a knowledge portal, research organization, and an ecosystem-building initiative.

-It stands to unite and promote collaborations with various entities in India’s AI ecosystem. It is the single central knowledge hub on artificial intelligence and allied fields for aspiring entrepreneurs, students, professionals, businesses, governments academics, and everyone else

74. Consider the following statements with reference to Carbon nano florets (CNFs) sometimes mentioned in the news:

1. Researchers have created carbon nano florets capable of converting sunlight into heat
2. They can absorb only visible and ultraviolet light, in contrast to traditional solar-thermal materials that typically absorb multiple frequencies of sunlight, including infrared, visible light, and ultraviolet.



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

3. The structure of the nano florets, composed of carbon cones, minimizes light reflection and ensures maximum internal absorption.

Which of the following statements are correct?

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

Answer:(c) 1 and 3 only

Explanation:

Statement 1 is correct: Recently, researchers at IIT Bombay have created carbon nano florets capable of converting sunlight into heat with unmatched efficiency of 87%

-This innovative development holds the potential to revolutionize sustainable heating solutions while minimizing the carbon footprint.

Statement 2 is incorrect: They can absorb multiple frequencies of sunlight, including infrared, visible light, and ultraviolet, in stark contrast to traditional solar-thermal materials that typically absorb only visible and ultraviolet light.

Statement 3 is correct: The structure of the nano florets, composed of carbon cones, minimizes light reflection and ensures maximum internal absorption.

-This distinctive design captures and retains sunlight, converting it into thermal energy.

Potential of Carbon Nanoflorets

- Heating Water Efficiently: A one-square-meter coating of carbon nano florets can vaporize approximately five litres of water within an hour, surpassing the performance of commercial solar stills.

-Carbon nano florets are ideal for water heating applications, offering a sustainable and cost-effective solution that reduces reliance on fossil fuels.

-Nanoflorets can be applied to diverse surfaces, such as paper, metal, and terracotta clay, making them versatile for various applications.

Eco-Friendly Heating: By utilizing nano floret coatings, users can harness solar energy for heating their homes in an environmentally friendly manner, thereby reducing their carbon footprint.

Stability and Longevity: Coated nano florets exhibit exceptional stability with a minimum lifetime of eight years. Researchers are continuing to assess their durability under various environmental conditions.

75. Which of the following Ramsar sites in India is not correctly matched with its location?

- (a) Rudrasagar lake-Tripura
- (b) Hokersar Wetland-Jammu Kashmir.
- (c) Kanjili Wetland-Punjab
- (d) Harike Wetland-West Bengal

Answer: (d) Harike Wetland-West Bengal

Explanation:

Option a is correctly matched: Rudrasagar Lake, also known as Twijilikma, is a lake located in Melaghar, Tripura, India.

-The Government of India's Ministry of Environment, Forest and Climate Change has identified Rudrasagar as one of the wetlands of National Importance for conservation and sustainable use based on its bio-diversity and socio economic importance. The secretary general of the Ramsar Convention has declared Rudrasagar Lake as a wetland of international importance. This certificate was communicated by Ministry of Environment and Forests, Govt. of India on 29 February 2007

Option b is correctly matched: The Hokersar is a wetland conservation area in Zainakote, near Srinagar city in Srinagar district of Jammu and Kashmir, India. It lies in the Kashmir Valley, 10 kilometers (6.2 mi) northwest of Srinagar. The Hokersar, which spreads over 1,375 hectares (13.75 km²), is a designated bird sanctuary.

Option c is correctly matched: Kanjili Wetland is a man-made Wetland that subsumes the Kanjili Lake, and is located in the Kapurthala district of Punjab state in India. It was created in 1870 by constructing the headworks across the perennial Bien River, a tributary of the Beas River to provide irrigation facilities to the hinterland. The rich biodiversity of the wetland comprising aquatic, mesophytic and terrestrial flora and fauna including some important species of plants and animals was recognized internationally by the Ramsar Convention in 2002 by designating the Kanjili Lake in the List of Wetlands of International Importance

Option d is incorrectly matched: Harike Wetland also known as "Hari-ke-Pattan", with the Harike Lake in the deeper part of it, is the largest wetland in northern India in the border of Tarn Taran Sahib



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

district and Ferozpur district of the Punjab state in India.

-The wetland and the lake were formed by constructing the headworks across the Sutlej river in 1953. The headworks is located downstream of the confluence of the Beas and Sutlej rivers just south of Harike village. The rich biodiversity of the wetland which plays a vital role in maintaining the precious hydrological balance in the catchment with its vast concentration of migratory fauna of waterfowls including a number of globally threatened species (stated to be next only to the Keoladeo National Park near Bharatpur) has been responsible for the recognition accorded to this wetland in 1990, by the Ramsar Convention, as one of the Ramasar sites in India, for conservation, development and preservation of the ecosystem.

76. Consider the following statements.

1. Buffer stock refers to a reserve of a commodity that is used to offset price fluctuations and unforeseen emergencies.
2. The concept of buffer stock was first introduced during the 5th Five Year Plan.
3. At present, buffer stock is maintained only for rice and onions.

How many of the following statements are correct?

- (a) One only
- (b) Two only
- (c) Three only
- (d) None

Answer: (a) One only

Explanation:

Statement 1 is correct: Buffer stock refers to a reserve of a commodity that is used to offset price fluctuations and unforeseen emergencies. It is generally maintained for essential commodities and necessities like food grains, pulses etc through the Food Corporation of India (FCI) At present, the Government of India prefers to use the term – Food grain stocking norms – which refers to the level of stock in the Central Pool that is sufficient to meet the operational requirement of food grains and exigencies at any point of time. Earlier this concept was termed as Buffer Norms and Strategic Reserve

Statement 2 is incorrect: The concept of buffer stock was first introduced during the 4th Five Year Plan (1969-74)

Statement 3 is incorrect: At present, buffer stock is maintained only for rice, wheat, pulses etc.

77. Consider the following statements.

1. India has the largest area under cotton cultivation in the world.
2. India ranks first in milk production in the world.
3. The main destination of Iron Ore exports from India is Japan.

How many of the following statements are correct?

- (a) One only
- (b) Two only
- (c) Three only
- (d) None

Answer: (b) Two only

Explanation:

Statement 1 is correct: India got 1st place in the world in cotton acreage with 120.69 Lakh Hectares area under cotton cultivation i.e. around 36% of world area of 333 Lakh Hectares.

Around 67% of India's cotton is grown in rain-fed areas and 33% in irrigated areas.

Statement 2 is correct: India is the highest milk producer and ranks first position in the world contributing 24.64% of global milk production in the year 2021-22. The milk production of India has registered 58% increase during the last nine years i.e., during the year 2014-15 and 2022-23 and increased to 230.58 Mn Tonnes in the year 2022-23.

Statement 3 is incorrect: The main destination of Iron Ore exports from India are: China (\$3.51B), South Korea (\$158M), Indonesia (\$150M), Oman (\$114M), and Japan (\$91.7M)

78. Consider the following statements.

1. India's Anthracite coal deposits are at Neyveli in Tamil Nadu.
2. India's largest Lignite deposits are in Jammu and Kashmir.
3. India imports most of its coking coal from the United States, Indonesia and Canada.

Which of the following statements are correct?



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

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

Answer:(d) 3 only

Explanation:

Statement 1 is incorrect: Anthracite: It is the best quality of coal with highest calorific value and carries 80 to 95% carbon content. It ignites slowly with a blue flame and is found in small quantities in Jammu and Kashmir.

Statement 2 is incorrect: The Neyveli Lignite Mines are spread over an area of 64 square kilometers and contain reserves of around 6,000 million tonnes of lignite. This makes it one of the largest lignite mining operations in the world.

Statement 3 is correct: Coking coal, also known as metallurgical coal, is a type of coal that can be used to produce good-quality coke, which is an essential fuel and reactant in the blast furnace process for primary steelmaking. India’s steel industry depends heavily on imported coking coal, as the domestic coal has low coking properties. The United States, Indonesia and Canada are among the top suppliers of coking coal to India, along with Australia, Russia and Mongolia

79.Consider the following statements related to Employee stock option plan

1. Employer gives certain stocks of company to the employee for negligible or less costs to employee.
2. These plans are aimed at improving the performance of the company and increasing the value of the shares.

Which of the following statements are correct?

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

Answer: (c) Both 1 and 2

Explanation: A recent report by a parliamentary committee has suggested that the government should change the Income Tax Act to make ESOPs (Employee Stock Option Plans) more favorable for startups and their employees.

Statement 1 is correct: ESOP (Employee stock option plan) is an employee benefit plan offering employees an ownership interest in the organization. It is similar to a profit-sharing plan. Under these plans, the company, which is an employer, offers its stocks at negligible or low prices.

Statement 2 is correct: These plans are aimed at improving the performance of the company and increasing the value of the shares by involving stockholders, who are also the employees, in the working of the company. The ESOPs help in minimizing problems related to incentives.

Note:

An employee stock ownership plan (ESOP) is a type of employee benefit plan which is intended to encourage employees to acquire stocks or ownership in the company.

-The Department-related Parliamentary Standing Committee on Commerce has proposed that ESOPs should be taxed only when the employees sell their shares and not on unrealized gains.

-The report stated that ESOPs are an important tool for startups to hire talented people at lower salaries and to save cash for investing in their businesses.

-It highlighted the challenges faced by startups in India, such as lack of funding, regulatory hurdles, intellectual property rights issues, and competition from foreign players.

-It recommended that the government should create a conducive environment for startups to thrive and contribute to the economic growth and innovation of the country.

80.Consider the following statements regarding Annamalai Tiger Reserve.

1. It is surrounded by the Parambikulam Tiger Reserve on the East.
2. The reserve is home to Kolam tribes.
3. It supports diverse forest types including dry deciduous, dry thorn and shola forests.

Which of the following statements are correct?

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

Answer: (b) 1 and 3 only



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Explanation:

Statement 1 is correct:

-It is one of the four Tiger Reserves in Tamil Nadu. It forms part of the Southern Western Ghats.

-It forms part of the Anamalai Parambikulam Elephant Reserve declared in 2003.

-It is surrounded by Parambikulam Tiger Reserve on the East, Chinnar Wildlife Sanctuary and Eravikulam National Park on the South Western side (all belong to Kerala).

Statement 2 is incorrect: The area has significant anthropological diversity with more than 4600 Adivasi people from six tribes of indigenous people living in 34 settlements.

-The tribes are the Kadars, Malasars, Malaimalasar, Pulaiyars, Muduvars and the Eravallan (Eravalar).

-Kolam are a designated Scheduled Tribe in the Indian states of Telangana, Chhattisgarh, Madhya Pradesh and Maharashtra. They belong to the sub-category Particularly vulnerable tribal group, one of the three belonging to this sub-category, the others being Katkari and Madia Gond.

Statement 3 is correct:

Flora:

-It includes wet evergreen forest and semi-evergreen forest, montane shola-grassland, moist deciduous, dry deciduous, thorn forests and marshes.

Fauna:

-The important mammals include: Asiatic elephant, Sambar, Spotted deer, Barking deer, Mouse deer, Gaur, Nilgiri tahr, Tiger, etc.

81. Which of the following is correct about 'Giffen Goods'?

- (a) The demand of these goods increase with an increase in their price.
- (b) The demand of these goods decrease with an increase in their price.
- (c) The demand of these goods increase with a decrease in their price.
- (d) The demand of these goods doesn't change with a change in their price. in their price.

Answer: (a) The demand of these goods increase with an increase in their price.

Explanation:

Option a is correct: A Giffen good is a non-luxury, low-income good whose consumption increases as price rises and vice versa. It describes a good that individuals consume more of as the price rises.

These products are necessary to fulfill the need for food, and they have only a few substitutes.

Bread, wheat, and rice are examples of Giffen goods. The thought of Giffen goods undermines the fundamental law of demand.

82. Which of the following was/were the changes brought in Indian Paintings with the arrival of European artists?

Statement 1 - Inculcation of the idea of Realism

Statement 2 - Introduction of the technique of watercolors.

- (a) Statement 1 is TRUE, Statement 2 is TRUE
- (b) Statement 1 is FALSE, Statement 2 is False
- (c) Statement 1 is TRUE, Statement 2 is False
- (d) Statement 1 is FALSE, Statement 2 is TRUE

Answer: (c)

Explanation:

Statement 1 is True: Realism in the arts is generally the attempt to represent subject matter truthfully, without artificiality and avoiding speculative and supernatural elements. The term is often used interchangeably with naturalism, although these terms are not synonymous. Naturalism, as an idea relating to visual representation in Western art, seeks to depict objects with the least possible amount of distortion and is tied to the development of linear perspective and illusionism in Renaissance Europe. This feature was brought in Indian Paintings with the arrival of European artists.

Statement 2 is False: Watercolor painting in India can be traced back to ancient times. Early Indian artists used natural pigments mixed with water to create exquisite artwork on cave walls and religious manuscripts.

- During the medieval period, miniature paintings emerged as a prominent art form in India. Watercolors were extensively used to create intricate and detailed illustrations in religious texts and courtly manuscripts.

-The Bengal School of Art, founded in the late 19th century, played a crucial role in promoting

PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

watercolour painting as a distinct art form. Artists like Abanindranath Tagore and Nandalal Bose used watercolours to create evocative and expressive works inspired by Indian mythology and folk tales.

-The arrival of European colonial powers in India, marked the introduction of easel painting and oil paints to India. First brought into the courts by Kettle, Hume, and other European artists, this type of painting was taught at schools.

83. Consider the following statements.

1. Goldilocks zone is the area around a star where it is not too hot and not too cold for liquid water to exist on the surface of surrounding planets.
2. Earth is in the Sun's Goldilocks zone.

Which of the following statements are correct?

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

Answer: (c) Both 1 and 2

Explanation:

Statement 1 is correct: A habitable zone, also called the "Goldilocks zone", is the area around a star where it is not too hot and not too cold for liquid water to exist on the surface of surrounding planets.

-In this context it is believed by many that Mars once had such an atmosphere. The mechanism as to why it lost its atmosphere has remained in doubt.

-Scientists from Indian Institution for Science Education and Research (IISER) Kolkata suggest that it was the planet's intrinsic magnetic dynamo which, by shielding its atmosphere from the sun's solar wind, protected its atmosphere.

-When the magnetic dynamo switched off, the atmosphere slowly was eroded by the solar wind and eventually vanished, leaving the thin remnant we see today.

Statement 2 is correct: Our Earth is in the Sun's Goldilocks zone. If Earth were where the dwarf planet Pluto is, all its water would freeze; on the other hand, if Earth were where Mercury is, all its water would boil off.

-Life on Earth started in water, and water is a necessary ingredient for life as we know it.

-So, when scientists search for the possibility of alien life, any rocky exoplanet in the habitable zone of its star is an exciting find.

84. The Brandt Line (an imaginary line) is a concept that highlights:

- (a) Global greenhouse gas emissions disparities
- (b) Global economic disparities.
- (c) International military zones.
- (d) None of the above

Answer: (b) Global economic disparities.

Explanation:

Option b is correct: The Brandt Line (an imaginary line) is a concept that categorizes the world into richer countries mainly in the Northern Hemisphere and poorer countries mostly in the Southern Hemisphere. It corresponds with the divide between economically developed and industrialized countries and those countries that are less economically developed, highlighting global economic disparities.

-The line is based on the "North-South: A Programme for Survival", a report addressing the problems of international inequality



85. According to Article 103 of the Constitution of India, who has the authority to take final decision if any question arises as to whether a member of either House of Parliament has become subject to disqualifications mentioned under Article 102(1)?

- (a) Election Commission of India
- (b) Speaker of Lok Sabha
- (c) The President
- (d) Vice Chairperson of Rajya Sabha

Answer: (c) The President

Explanation:



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

Option c is correct: If any question arises as to whether a member of either House of Parliament has become subject to any of the disqualifications mentioned in article 102(1), the question shall be referred for the decision of the President and his decision shall be final.

86. Consider the following statements.

1. Indo-Pacific Regional Dialogue (IPRD) is an exclusive forum for India and its immediate neighbors to discuss regional security issues.
2. The IPRD is attended by all the representatives of the QUAD nations.
3. IPRD is an apex level international annual conference of the Indian Navy and The National Maritime Foundation (NMF) is the Navy's knowledge partner.

Which of the following statements are correct?

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

Answer: (c) 2 and 3 only

Explanation:

Statement 1 is incorrect:

-There is an involvement of speakers and delegates from 16 countries, not exclusively India and its immediate neighbors, it is a multilateral dialogue involving many countries in the Indo-pacific region.

-Representation from subject-matter experts, policymakers, industry leaders, and academia Engagement of students, scholars, military practitioners, diplomats, think tanks, and eminent citizens from India and abroad

-The IPRD reviews the current geopolitics in the Indo-Pacific region and identifies opportunities, dangers, and problems that might be present.

-IPRD remains crucial to its interests because one of the main goals of the NMF is to conduct analyses of international relations and geopolitical factors that are important to India strategically,

Statement 2 is correct: India, Australia, Japan, and the United States of America make up the QUAD Group, an informal strategic forum, which serves as a platform for these nations to engage in discussions on regional security, defense cooperation, and shared

interests in the Indo-Pacific region. The Quad has gained prominence in recent years due to its role in promoting a free, open, and inclusive Indo-Pacific, addressing common challenges, and upholding international rules-based order. The IPRD is attended by all the representatives of the QUAD nations.

Statement 3 is correct: IPRD is an apex level international annual conference of the Indian Navy.

-In 2018, the initial conception of an IPRD was made. The National Maritime Foundation (NMF) is the Navy's knowledge partner and chief organizer of each edition of the event.

87. Consider the following pairs:

Region in news	-	Country
1. Catalonia	-	Spain
2. Oromia	-	Turkey
3. Crimea	-	Ukraine
4. Mindanao	-	Phillipines

Which of the following pairs are correctly matched.

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

Answer: (c) 1,3,4 only

Explanation:

1. Catalonia -Spain: Catalonia is a semi-autonomous region in Iberian Peninsula in the north-eastern Spain. It has a distinct history dating back almost 1,000 years and has its own language, parliament, flag and anthem.

2. Oromia -Ethiopia: Oromia is a regional state in Ethiopia and the homeland of the Oromo people. The capital of Oromia is Addis Ababa

3. Crimea -Ukraine: Crimea is a peninsula in Eastern Europe, on the northern coast of the Black Sea, almost entirely surrounded by the Black Sea and the smaller Sea of Azov. The Isthmus of Perekop connects the peninsula to Kherson Oblast in mainland Ukraine.

4. Mindanao -Phillipines: Mindanao encompasses the large island of Mindanao plus smaller islands in the southern Philippines.

88. With reference to 'Financial Action Task Force (FATF)', which is/are correct?



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

1. It is a global money laundering and terrorist financing watchdog set by G20

2. India is a founding member of FATF

Which of the following statements are incorrect?

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

Answer: (c)

Explanation:

Statement 1 is incorrect: FATF is the global money laundering and terrorist financing watchdog set up in 1989 out of a G-7 meeting of developed nations in Paris.

Objective:

-Initially, its objective was to examine and develop measures to combat money laundering.

-After the 9/11 attacks on the US, the FATF in 2001 expanded its mandate to incorporate efforts to combat terrorist financing.

-In April 2012, it added efforts to counter the financing of proliferation of Weapons of Mass Destruction (WMD).

Statement 2 is incorrect: India and FATF: India joined with 'observer' status in 2006 and became a full member of FATF in 2010.

Countries that are the members of FATF Include: Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Finland, France, Germany, Greece, Hong Kong (China), Iceland, India, Ireland, Israel, Italy, Japan, Republic of Korea, Luxembourg, Malaysia, Mexico, Netherlands, New Zealand, Norway, Portugal, Russia, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Switzerland, Türkiye, the UK and the US.

89. Consider the following statements regarding China- Pakistan Economic Corridor (CPEC):

- 1. It connects China's Uygur Autonomous region with Gwadar Port in Pakistan.
- 2. It will enable China to access the Indian Ocean.

Which of the following statements are correct?

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

(d) Neither 1 nor 2

Answer: (c) Both 1 and 2

Explanation:

Statement 1 is correct:

-CPEC is a 3,000-km long route of infrastructure projects connecting China's northwest Xinjiang Uygur Autonomous Region and the Gwadar Port in the western province of Balochistan in Pakistan.

-It is a bilateral project between Pakistan and China, intended to promote connectivity across Pakistan with a network of highways, railways, and pipelines accompanied by energy, industrial, and other infrastructure development projects.

Statement 2 is correct: It will pave the way for China to access the Middle East and Africa from Gwadar Port, enabling China to access the Indian Ocean and in return China will support development projects in Pakistan to overcome the latter's energy crises and stabilize its faltering economy.

90. With reference to Joint Rivers Commission of India- Bangladesh, consider the following statements:

- 1. Indo-Bangladesh Joint Rivers Commission (JRC) has been functioning since 1952.
- 2. It was put in place to maximize the benefits of common river systems between the two countries.
- 3. It is headed by the Water Resources Ministers of both countries.

Which of the statements given above is/are correct?

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

Answer: (b) 2 and 3 only

Explanation:

Statement 1 is incorrect: An Indo-Bangladesh Joint Rivers Commission (JRC) has been functioning since 1972.

Statement 2 is correct: It was established to ensure the most effective joint efforts in maximizing the benefits of common river systems. India and Bangladesh share 54 rivers.

Statement 3 is correct: The JRC is headed by Water Resources Ministers of both the countries.



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

91.Regarding the India-Mauritius Relations, consider the following statements:

1. They recently signed the Comprehensive Economic Cooperation and Partnership Agreement (CEPA).
2. India supported Mauritius in the Chagos Archipelago dispute.
3. Mauritius is the third largest source of FDI in India in 2021-22.

Which of the statements given above is/are correct?

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

Answer:(d)1, 2 and 3

Explanation

Statement 1 is correct: India signed its first free trade agreement (FTA) with Mauritius, its first such agreement with an African nation. Known as the Comprehensive Economic Cooperation and Partnership Agreement (CECPA), the historic pact will strengthen regional commercial ties. The India-Mauritius CECPA is broad-based, covering a wide remit that includes trade in goods, trade in services, non-tariff measures and technical barriers to trade, sanitary and phytosanitary measures, trade facilitation, investment, technical regulations, custom procedures, rules of origin, dispute settlement, trade remedies, etc.

Statement 2 is correct: India has supported Mauritius’ stand on the Chagos Archipelago. India in its submission to ICJ has said that the Chagos Archipelago has been and continues to be with Mauritius and demanded sovereignty over the Chagos Archipelago from Britain.

Statement 3 is correct: Since the signing of the DTAC amendment in 2016, FDI inflows from Mauritius have dropped from USD 15.72 bn in 2016-17 to USD 6.13 bn in 2022-23, with Mauritius becoming India’s third largest source of FDI. In Mauritius, Indian companies have invested over USD 200 mn in the last five years.

92.Which international agreement provides the legal framework for marine and maritime activities,

including territorial sea boundaries and rights of countries?

- (a) Geneva Convention
- (b) Vienna Convention
- (c) UNCLOS
- (d) None of the above

Answer:(c) UNCLOS

Explanation

Option c is correct:

-The United Nations Convention on the Law of the Sea (UNCLOS), 1982 is an international agreement that establishes the legal framework for marine and maritime activities.

-It is also known as Law of the Sea. It divides marine areas into five main zones namely- Internal Waters, Territorial Sea, Contiguous Zone, Exclusive Economic Zone (EEZ) and the High Seas.

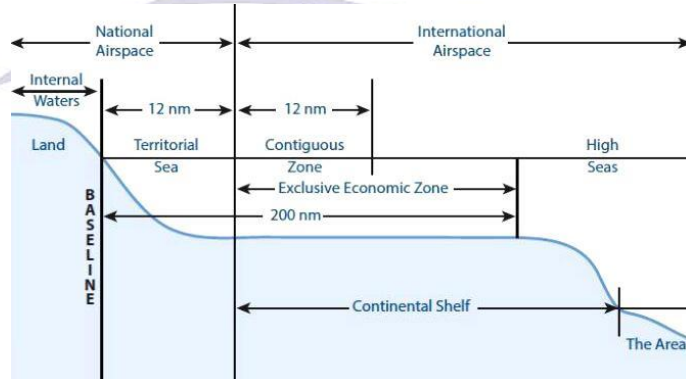
-It is the only international convention which stipulates a framework for state jurisdiction in maritime spaces. It provides a different legal status to different maritime zones.

-It provides the backbone for offshore governance by coastal states and those navigating the oceans.

-It not only zones coastal states’ offshore areas but also provides specific guidance for states’ rights and responsibilities in the five concentric zones.

-While UNCLOS has been signed and ratified by nearly all the coastal countries in the South China Sea, its interpretation is still hotly disputed.

Maritime Zones:



93.What is/are the consequence/consequences of a country becoming a member of the ‘Nuclear Suppliers Group’?

1. It will have access to the latest and most efficient nuclear technologies.



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

2. It automatically becomes a member of “The Treaty on the Non-Proliferation of Nuclear Weapons (NPT)”.

Which of the statements given above is/are correct?

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

Answer: (a) 1 only

Explanation:

-The Nuclear Suppliers Group (NSG) was created following the explosion in 1974 of a nuclear device by a non-nuclear-weapon State (India), which demonstrated that nuclear technology transferred for peaceful purposes could be misused.

-It is a group of nuclear supplier countries that seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of Guidelines for nuclear exports and nuclear-related exports.

-The grouping has 48 participating governments and the NSG Guidelines are implemented by each member in accordance with its national laws and practices.

-The NSG takes decisions by consensus.

Statement 1 is correct: Access to technology for a range of uses from medicine to building nuclear power plants for India from the NSG which is essentially a traders’ cartel. India has its own indigenously developed technology but to get its hands on state of the art technology that countries within the NSG possess, it has to become part of the group. With India committed to reducing dependence on fossil fuels and ensuring that 40% of its energy is sourced from renewable and clean sources, there is a pressing need to scale up nuclear power production. This can only happen if India gains access to the NSG. Even if India today can buy power plants from the global market thanks to the one time NSG waiver in 2008, there are still many types of technologies India can be denied as it is outside the NSG.

Statement 2 is incorrect: It automatically does not become a member of “The Treaty on the Nonproliferation of Nuclear Weapons (NPT)”. India could sign the nuclear non-proliferation treaty and

gain access to all this know-how but that would mean giving up its entire nuclear arsenal.

Given that it is situated in an unstable and unpredictable neighborhood India is unlikely to sign the NPT or accede to the Comprehensive Test Ban Treaty (CTBT) that puts curbs on any further nuclear tests.

94. Consider the following International treaties:

- 1. CITES
- 2. Paris Agreement
- 3. Kyoto Protocol
- 4. Montreal Protocol
- 5. Convention On Biological Diversity (CBD)
- 6. UN Convention to Combat Desertification (UNCCD)

How many of the above are legally binding in nature?

- (a) Three only
- (b) Four only
- (c) Five only
- (d) Six only

Answer: (d) Six only

Explanation:

CITES Paris Agreement, Kyoto Protocol, Montreal Protocol, Convention On Biological Diversity (CBD), UN Convention to Combat Desertification (UNCCD) all related to climate are legally binding in nature.

95. Consider the following statements with reference to Universal Postal Union (UPU):

- 1. It is a United Nations specialized agency.
- 2. It coordinates postal policies among member nations.
- 3. A country in order to become a member of UPU needs to be a member of the UN.

Which of the following statements are correct?

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

Answer: (a) 1 and 2 only

Explanation:

Statement 1 is correct:

-The Universal Postal Union (UPU) was established by the Treaty of Bern of 1874.



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

-It is a specialized agency of the United Nations (UN) that coordinates postal policies among member nations, in addition to the worldwide postal system.

-It is the second oldest international organization worldwide.

-UPU's headquarters are located in Bern, Switzerland.

Statement 2 is correct: The union sets the rules for international mail exchanges and makes recommendations to stimulate growth in mail, parcel, and financial services volumes and improve the quality of service for customers. It also oversees the Telematics and Express Mail Service (EMS) cooperatives.

Statement 3 is incorrect: Any member country of the United Nations may become a member of the UPU.

-Any non-member country of the United Nations may become a UPU member provided that its request is approved by at least two-thirds of the member countries of the UPU.

96. With reference to Budapest Convention, Consider the following statements:

1. It is a non-binding international multilateral treaty on Cyber-Crime
2. India recently became a party to this convention.

Which of the following statements are correct?

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

Answer: (d) Neither 1 nor 2

Explanation:

Statement 1 is incorrect:

Budapest Convention

-The Council of Europe's (CoE) Cybercrime Convention is also known as the Budapest Convention. It was open for signature in 2001 and came into force in 2004.

-The convention is the sole legally binding international multilateral treaty on cybercrime. It coordinates cybercrime investigations between nation-states and criminalizes certain cybercrime conduct.

-It serves as a guideline for any country developing comprehensive national legislation against Cybercrime and as a framework for international cooperation between state parties to this treaty.

-The Budapest Convention is supplemented by a Protocol on Xenophobia and Racism committed through computer systems.

Statement 2 is incorrect: This Convention has eagerly called for Indian participation since its formation in 2001, but India has decided not to be a party to it.

97. Carbon Border Adjustment Mechanism (CBAM), sometimes seen in news, is the initiative of

- (a) G20 Grouping
- (b) OECD
- (c) European Union (EU)
- (d) IMF

Answer: C

Explanation:

The EU in 2021, came up with a proposal for a Carbon Border Adjustment Mechanism (CBAM). The CBAM plans to impose a tariff on a set of carbon-intensive imports, which will have to be paid by EU importers and companies who export such goods to EU countries. With the CBAM, the EU also wants to create a level-playing field for business in the bloc with those outside by making equal the price for the carbon content of goods regardless of where they are made.

98. Consider the following:

1. Oxides of sulphur
2. Oxides of nitrogen
3. Carbon monoxide
4. Carbon dioxide

How many of the above are some important pollutants released by the steel industry in India?

- a) Only one
- b) Only two
- c) Only three
- d) All four

Answer: d

Explanation:

The pollutants released from steel producing units are: Carbon Monoxide (CO), Carbon Dioxide (CO₂), Oxides of Sulphur (SO_x), Oxides of Nitrogen (NO_x),



PRELIMS MISSION TEST-09 (24-02-2024)

EXPLANATION

PM 2.5, Waste Water, Hazardous waste, Solid waste etc.

99. Consider the following statements regarding Tax Inspectors Without Borders (TIWB) program.

1. Tax Inspectors Without Borders (TIWB) program, is a collaborative effort between World Bank and the Organisation for Economic Cooperation and Development (OECD).
2. India has been selected as the Partner Administration.
3. It will facilitate the transfer of tax audit knowledge and skills to developing country tax administrations.

How many of the above statements is/are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Answer: B

Explanation:

Statement 1 is incorrect. • Tax Inspectors Without Borders (TIWB) program, a collaborative effort between the United Nations Development Programme (UNDP) and the Organisation for Economic Cooperation and Development (OECD), was recently launched in Saint Lucia.

Statement 2 is correct. India has been selected as the Partner Administration and will contribute Tax Experts to the 12-18-month initiative. This marks the seventh TIWB program supported by India through the provision of Tax Experts.

Aim: The program's focus is on the effective use of automatic exchange of information under the Common Reporting Standard (CRS) framework.

Statement 3 is correct. TIWB will facilitate the transfer of tax audit knowledge and skills to developing country tax administrations using a practical, "learning by doing" approach.

100. With reference to 'Loss and Damage Fund', consider the following statements:

1. It is the financial mechanism of the United Nations Framework Convention on Climate Change (UNFCCC).

2. It is hosted by the Global Environment Facility.

3. It is financed voluntarily through contributions from developed countries.

4. It aims specifically at the global restoration of arid, semi-arid and drylands.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Answer: B

Explanation:

Loss and damage refer to the negative consequences that arise from the unavoidable risks of climate change, like rising sea levels, prolonged heat waves, desertification, the acidification of the sea and extreme events, such as bushfires, species extinction and crop failures. As the climate crisis unfolds, these events will happen more and more frequently, and the consequences will become more severe.

statement 1 is correct. The Loss and Damage Fund is a \$400 million-plus fund that was adopted at the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP 28) conference in Dubai, 2023. It was first announced during COP27 in Sharm el-Sheikh, Egypt.

statement 2 is not correct. The fund is to be hosted by the World Bank (not by the Global Environment Facility) for an interim period of four years and will be overseen by an independent secretariat. The bank is expected to charge a significant overhead fee.

statement 3 is correct. It will be financed through voluntary contributions from developed countries. The initial funding is estimated to be \$475 million, with contributions from countries such as the United States, Japan, Germany and the European Union. The United Arab Emirates (UAE) has pledged \$100 million to the fund.

statement 4 is not correct. The purpose of the fund is to provide financial assistance to developing countries that are most affected by climate change and are least responsible for it. The fund is intended to help these countries cope with the cost of the devastation caused by ever-increasing extreme



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EXPLANATION

weather events such as drought, floods, and rising seas.

