

UPSC PRELIMS 2022- Answer key

1) Site of Asoka's major rock edicts –Location in the state

1. Dhauli-Odisha
2. Erragudi-Andhra Pradesh
3. Jaugada-Madhya Pradesh
4. Kalsi-Karnataka

How many pairs given above are correctly matched?

a) Only one pair

B) ONLY TWO PAIRS

c) Only three pairs

d) All four pairs

Explanation

Dhauili –Bhubaneshwar-Odissa

Erragudi –Kurnool district –Andhra Pradesh

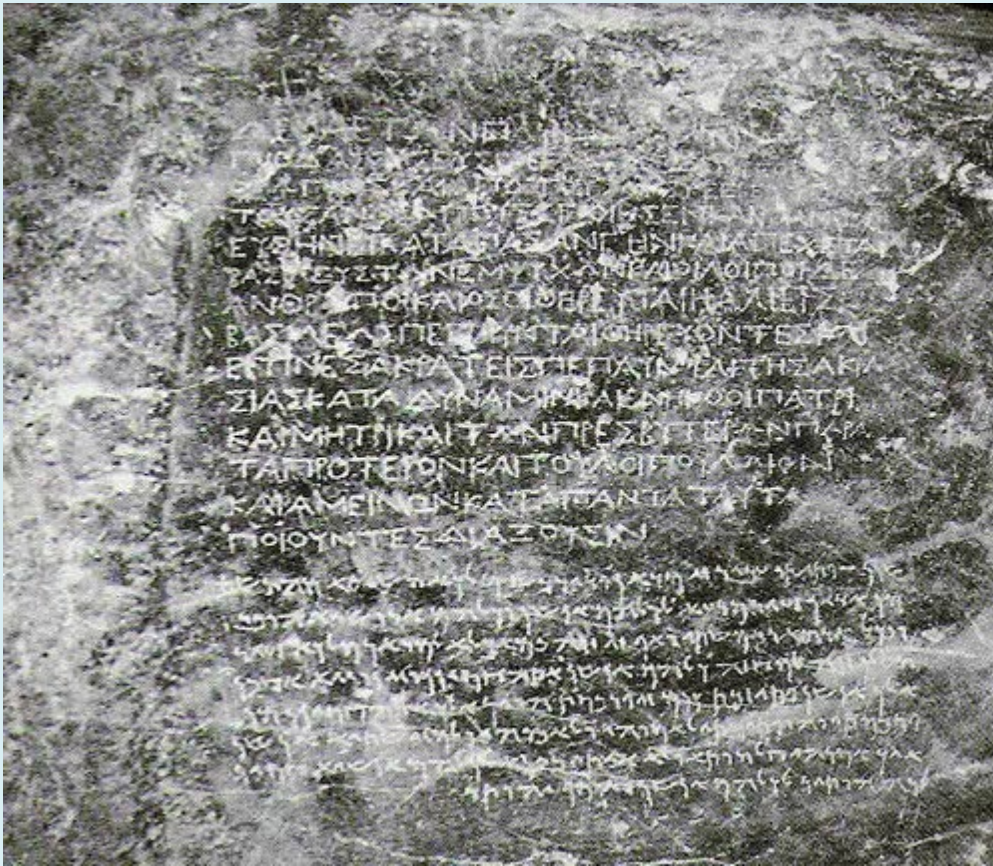
Jaugada earlier name samapa in odisha

Kalsi in Dehradun

The edicts of Ashoka are 33 inscriptions engraved on pillars, pillars, large stones, and cave walls by the Ashoka the great (268-232 BCE)

https://www.worldhistory.org/Edicts_of_Ashoka/





2) Consider the following pairs

King-dynasty

1. Nannuka-Chandela
2. Jayashakti-Paramara
3. Nagbhata ii-Gurjara-Pratihara
4. Bhoja-Rashtrakuta

How many pairs given above are correctly matched?

a) Only one pair

B) ONLY TWO PAIRS

c) Only three pairs

d) All four pairs

Dynasty

Nannuka

Founder

Chandela dynasty

Jyashakti
Nagbhata ii

chandela dynasty
Gurjara pratihara dynasty

Bhoja

Pramara dynasty

3) Which one of the following statements about Sangam literature in ancient South India is correct?

a) Sangam poems are devoid of any reference to material culture

B) THE SOCIAL CLASSIFICATION OF VARNA WAS KNOWN TO SANGAM POET

c) Sangam poems have no reference to warrior ethnic

d) Sangam literature refers to magical forces as irrational

Explanation

Sangam literature is not the product of a particular social or religious group nor was it sponsored as a court literature by a ruling elite.

Composed at various points of time over a long span of about 600 years and authored by people of various level-princes, cheftains, peasants, merchants, potters, smiths, carpenters, and bramhanas, Jains and Budhists

The poems deals with disparate social groups

4) Yogavasistha was translated into Persian by Nizamuddin Panipati during the reign of

A)AKBAR

b) Humayun

c) Shahjahan

d) Aurangzeb

Explanation

Yoga vasisht is also known as Vasishta Yoga is a hindu text traditionally attributed to Valmiki. It recounts discourse of the sage vasishta to a young prince Rama, during a period when the later is in dejected state

Yoga vasisht was translated into Persian by Nizamuddin Panipati during the reign of Akbar





Picture from Yoga Vasishtha Manuscript, 1602

5) The world second tallest statue in sitting poser of Ramanuja was inaugurated by the prime Minister of India at Hyderabad recently. Which one of the following statements correctly represents the teaching of Ramanuja?

A) THE BEST MEANS OF SALVATION WAS DEVOTION

- b) Vedas are eternal, self existent and wholly authoritative
- c) Logical arguments were essential means for the highest bliss
- d) Salvation was to be obtained through meditation

Salvation can be obtained through devotion and surrender

Explanation

Devotion and absolute self-surrender are the happiest and best means to reach the god

A seeker must acquire knowledge of the individual self and the supreme ; he/she must devote himself to meditation worship and the adoration of the supreme

<https://www.hindu-blog.com/2018/10/ramanujacharya-quotes-collection-of.html>

6) The Prime Minister recently inaugurated the new circuit house near Somnath Temple at Veraval. Which of the following statements are correct regarding Somnath Temple?

1. Somnath temple is one of the Jyotirlinga Shrines
2. A description of Somnath Temple was given by Al –Beruni
3. Pran Pratishtha of Somnath Temple was done by President S. Radhakrishnan

Select the correct code

A) 1 AND 2 ONLY

b) 2 and 3 only

C) 1 and 3 only

D) 1, 2 and 3

Explanation

The first **President of India Rajendra Prasad** had presided over installation ceremony of somnath temple

<https://www.indianholiday.com/blog/somnath-temple-curse-of-the-moon/>

7) Which one of the following statements best describe the role of B cells and T cells in the human body?

- a) They protect the body from environment allergens
- b) They alleviate the body's pain and inflammation
- c) They act as immunosuppressants in the body

D) THEY PROTECT THE BODY FROM THE DISEASE CAUSED BY PATHOGENS



What are the functions of lymphocytes?

Lymphocytes are a type of white blood cells. They play a critical role in keeping us healthy. Without them, we can't survive.

- **T cells protect us from infection.** In our daily lives, we're constantly exposed to pathogens, such as bacteria, viruses and fungi. Without T lymphocytes, also called T cells, every exposure could be life-threatening. T cells can wipe out infected or cancerous cells. They also direct the immune response by helping B lymphocytes to eliminate invading pathogens.
- **B cells create antibodies.** B lymphocytes, also called B cells, create a type of protein called an antibody. These antibodies bind to pathogens or to foreign substances, such as toxins, to neutralize them. For example, an antibody can bind to a virus, which prevents it from entering a normal cell and causing infection. B cells can also recruit other cells to help destroy an infected cell.

<https://www.mdanderson.org/cancerwise/t-cells--b-cells-and-the-immune-system.h00-159465579.html#:~:text=T%20cells%20can%20wipe%20out,of%20protein%20called%20an%20antibody.>

8) Consider the following statements

1. Other than those made by humans, nanoparticles do not exist in nature
2. Nanoparticles of some metallic oxides are used in the manufacture of some cosmetics
3. Nanoparticles of some commercial products which enter the environment are unsafe for humans.

Which of the statements given above is/are correct?

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

D) 2 and 3

Explanation

Nano particle is a small particle that ranges from 1 to 100 nanometers in size

Nano particles widely exist in nature

Undetectable by the human eye, nanoparticles can exhibit significantly different

physical and chemical properties to their larger material counterparts

<https://www.twi-global.com/technical-knowledge/faqs/what-are-nanoparticles#:~:text=A%20nanoparticle%20is%20a%20small,to%20their%20larger%20material%20counterparts.>

9) Consider the following statements

DNA barcoding can be a tool to

1. Assess the age of a plant or animal
2. Distinguish among species that look alike
3. Identify undesirable animal or plant materials in processed foods

Which of the statements given above is/are correct?

A) 1 only

b) 3 only

c) 1 and 2

D) 2 AND 3

Explanation

DNA bar-coding is used to identify known and unknown species on the basis of the pattern of nucleotide arrangement.

10) Consider the following

1. Carbon monoxide
2. Nitrogen oxide
3. Ozone
4. Sulphur dioxide

Excess of which of the above in the environment is/are cause of acid rain

a) 1, 2 and 3

B) 2 AND 4 ONLY

- c) 4 only
- d) 1, 3 and 4

Explanation

Acid rain results when Sulfur dioxide (SO₂) and nitrogen oxide (NO_x) are emitted into the atmosphere and transported by wind and air currents

<https://www.epa.gov/acidrain/what-acid-rain#:~:text=Acid%20rain%2C%20or%20acid%20deposition,even%20dust%20that%20is%20acidic.>

11) Consider the following statements

1. High clouds primarily reflect solar radiation and the cool surface of the earth
2. Low clouds have a high absorption of infrared radiation emanating from the earth's surface and thus cause warming effect

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

Explanation

High clouds are often thin and do not reflect very much .They radiate less energy into space than the lower ,warmer clouds .Therefore ,high clouds work to trap more energy than the low clouds

Low clouds are often quite thick and reflect lots of sunlight back to space .low clouds are excellent reflectors. But they don't stop the long wave energy from escaping to space therefore low clouds help to cool the Earth

12) Consider the following statement

1. Bidibidi is a large refugee settlement in north-western Kenya
2. Some people who fled from South Sudan civil war live in Bidibidi

3. Some people who fled from civil war in Somalia live in Dadaab refugee complex in Kenya

Which of the statements given above is/are correct?

a) 1 and 2

b) 2 only

C 2 and 3

d) 3 only

Explanation

First statement incorrect –Bidibidi refugee settlement is a refugee camp in northwestern Uganda

<https://bidibidi.caritas.org/>

13) Consider the following countries

1. Armenia

2. Azerbaijan

3. Croatia

4. Romania

5. Uzbekistan

Which of the above are members of the organization of TURKIC STATES?

a) 1, 2 and 4

b) 1 and 3

C) 2 and 5

D 3,4 and 5

Explanation

Members-Turkey,which is home to its general secretariat in Istanbul,Azerbaijan,Kazakhstan,Kyrgyzstan,and Uzbekistan along with observer status Turkmenistan and Hungary

<https://www.turkkon.org/en/turk-konseyi-hakkinda>

14) Consider the following statements

1. Gujarat has the largest solar park in India
2. Kerala has a fully solar powered International Airport
3. Goa has the largest floating solar photovoltaic project in India

Which of the statements given above is /are correct?

a) 1 and 2

B) 2 ONLY

c) 1 and 3

d) 3 only

Explanation

India's Bhadla solar park in Rajasthan is the largest solar power park in the World

Kerala's Cochin International Airport Ltd is the first airport in the world that would be running fully on solar power

15) With reference to the United Nations Convention on the Law of seas, consider the following statements

1. A coastal state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baseline determined in accordance with the convention
2. ships of all states, whether coastal or land locked; enjoy the right of innocent passage through the territorial sea
3. The Exclusive Economic Zone shall not extend beyond 200 nautical miles from the baseline from which the breadth of the territorial sea is measured

Which of the statements given above are correct?

a) 1 and 2 only

b) 2 and 3 only

c) 1 and 3 only

D) 1, 2 AND 3

Explanation

- EEZ comprises an area that extends either from the coast or in the federal systems from the seaward boundaries of the constituent states (3 to 12 nautical miles, in most cases) to 200 nautical miles (370 kilometres) off the coast
 - Within this area, nations claim and exercise sovereign rights and exclusive fishery management authority over all fish and continental and all continental shelf fishery resources
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EXCLUSIVE ECONOMIC ZONES (EEZ) (upscexamnotes.com)

16) Which one of the following statements best reflects the issue with Senkaku islands, sometimes mentioned in the news?

a) it is generally believed that they are artificial islands made by a country around South China Sea

B) CHINA AND JAPAN ENGAGE IN MARITIME DISPUTES OVER THESE ISLANDS IN EAST CHINA SEA

c) A permanent American military base has been set up there to help Taiwan to increase its defense capabilities

d) Though International court of Justice declared them as no man's land some South East Asian countries claim them.

Explanation

The dispute is over the claim of Senkaku islands which have been controlled by Japanese since 1895, between 1945-1972 the islands were administered by the United States. In 1971 the US handed over the authority to Japan. In 1971 The island chain claimed by China, Taiwan and Japan is made up of five islets and three barren rocks covering an area of 7 square kilometers

17) Consider the following pairs

1. Chad-setting of permanent military base by China
2. Guinea-suspension of Constitution and government by military
3. Lebanon-severe and prolonged economic depression
4. Tunisia –suspension of Parliament by President

How many pairs given above are correctly matched?

- a) only one pair
- b) Only two pairs

C) ONLY THREE PAIRS

- d) All four pairs

18) Consider the following pairs

Region often mentioned in news-country

1. Anatolia-Turkey
2. Amhara-Ethiopia
3. Cabo Delgado-Spain
4. Catalonia-Italy

How many pairs given above are correctly matched?

- a) Only one pair

B) ONLY TWO PAIR

- c) Only three pair
- d) All four pairs

Explanation

Statement 3 and 4 incorrect.

Cabo Delgado is a region in Mozambique; Catalonia is a region of Spain

19) With reference to Indian laws about wildlife protection, consider the following statements

1. Wild animals are the sole property of the government
2. When a wild animal is declared protected, such animal is entitled for equal protection whether it is found in protected areas or outside
3. Apprehension of a protected wild animal becoming a danger to human life is sufficient ground for its capture or killing

Which of the statements given above is /are correct?

a) 1 and 2

b) 2 only

C) 1 AND 3

d) 3 only

Explanation

Statement 3 incorrect- only if the wild animal becomes a danger to human life or is diseased or disabled beyond recovery can it be allowed to be capture or killed by the competent authority, the Chief wildlife warden of the state .This provision is applicable to wild animals listed in schedule I of the wildlife protection act 1972 which includes leopards. Mere apprehension or fear that a wild animal could endanger human life is not a aground for capture or killing

20) Certain species of which one of the following organisms are well known as cultivators of fungi?

A) ANT

b) Cockroach

c) Crab

d) Spider

21)In India ,which one of three following compiles information on industrial disputes,closures,retrenchments and lay off in factories employing workers?

a)Central statistics office

b) Department for Promotion of Industry and Internal trade

C) LABOUR BUREAU

d) National Technical Manpower Information System

22) In India, what is the role of the coal controller's organization (CCO?)

1. CCO is the major source of coal statistics in Government of India
2. It monitors progress of development of captive coal/lignite blocks
3. It hears any objection to the government's notification relating to acquisition of coal – bearing areas
4. It ensures that coal mining companies deliver the coal to end users in the prescribed time

Select the correct answer using code

A) 1, 2 AND 3

b) 3 and 4 only

C) 1 and 2 only

d) 1, 2 and 4

23) If a particular area is brought under fifth schedule of the constitution of India, which one of the following statements best reflects the consequence of it?

A) THIS WOULD PREVENT THE TRANSFER OF LAND OF TRIBAL PEOPLE TO NON –TRIBAL PEOPLE

b) This would create a local self governing body in that area

c) This would convert that area into a union territory

d) The state having such areas would be declared a special category state

Explanation

Governor can make regulations for the peace and good government of a scheduled area after consulting the tribes advisory council. Such regulation may prohibit or restrict the transfer of land by tribal to non tribal members or among members of the scheduled tribes, regulate the allotment of land to members of the scheduled tribes

B is incorrect because Tribal Advisory council is an advisory body not a governing body

24) Consider the following statements

1. The India Sanitation coalition is a platform to promote sustainable sanitation and is funded by the Government of India and World Health Organization
2. The National Institute of Urban Affairs is an apex body of the Ministry of Housing and Urban Affairs in Government of India and provides innovative solutions to address the challenges of Urban India

Which of the statements given above is/are correct?

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

D) NEITHER 1 NOR 2

Explanation

ISC is a multistakeholder platform that brings together the private sector, government, financial institutions, civil society groups, media, donors, multilateral experts etc to work in the sanitation through a partnership model

Statement 2 is incorrect – National Institute of Urban Affairs is India's leading national think tank on urban planning and development. As a hub for generation and dissemination of cutting-edge research in the urban sector, NIUA seeks to provide innovative solutions to address the challenges of a fast urbanizing India

25) Which one of the following has been constituted under the Environment Protection Act 1986?

- A) Central Water Commission
- b) Central Ground Water Board

C) CENTRAL GROUND WATER AUTHORITY

- d) National Water Development Agency

Explanation

Central Ground Water Authority has been constituted under section 3(3) of the Environment Protection Act, 1986 to regulate and control development

and management of groundwater resources in the country
Central Water Commission established in 1945 on the advice of
B.R.Ambedkar, member in viceroy's executive council, under whose guidance
then Labour department constituted the omission
Central Ground Water Board, a subordinate office of the Ministry of water
resources national apex agency entrusted with responsibilities of providing
scientific inputs for management, exploration, monitoring assessment of
ground water resources Board was established in 1970 by renaming
Exploratory Tube well Organization under the Ministry of Agriculture,
Government of India and merged with the ground water wing of the
Geological Survey Of Indian in 1972
National water Development Agency set up in July 1982 as autonomous
society under societies Registration Act 1860

26) With reference to the United Nations credentials committee considers the following statements

1. It is a committee set up by the UN Security Council and works under its supervision
2. It traditionally meets in March, June and September every year
3. It assesses the credentials of all UN members before submitting a report to the General Assembly for approval.

Which of the statements given above is/are correct?

A) 3 ONLY

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

Explanation

Statement 1 is incorrect- The United Nation credentials committee is a committee of the United Nations General Assembly

Statement 2 is incorrect –A credential committee is appointed at the beginning of each regular session of the General Assembly

Statement 3 correct- its main purpose is to report to the Assembly regarding the credentials of the body's representative

27) Which one of the following statements best describes the polar code?

A) IT IS INTERNATIONAL CODE OF SAFETY FOR SHIPS OPERATING IN POLAR WATERS

- b) It is the agreement of the countries around the North Pole regarding the demarcation of their territories in the polar region
- c) It is a set of norms to be followed by the countries whose scientists undertake research studies in the North Pole and South Pole
- d) It is a trade and security agreement of the member countries of the Arctic Council

Explanation

The polar code adopted during 94th session of IMO's Maritime Safety Committee in November 2014. The code will require ships intending to operating in the defined waters of the Antarctic and Arctic to apply for a Polar ship certificate which would classify the vessel as category A ship, category B ship and category C ship, the issuance of a certificate would require an assessment, taking into account the anticipated range of operating conditions and hazards ship may encounter in the polar waters



28) With reference to the United Nations General Assembly, consider the following statements

1. The UN General Assembly can grant observer status to the non-member states
2. Inter-governmental organizations can seek observer status in the UN General Assembly
3. Permanent observers in the UN General Assembly can maintain missions at the UN headquarters

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- C) 1 and 3 only

D) 1, 2 AND 3

29) With reference to the Tea Board in India, consider the following statement

1. The Tea Board is a statutory body
2. It is a regulatory body attached to the Ministry of Agriculture and Farmers welfare
3. The Tea Board's Head office is situated in Bangalore
4. The Board has overseas offices at Dubai and Moscow

Which of the statement given above are correct?

- a) 1 and 3
- b) 2 and 4
- C) 3 and 4

D) 1 AND 4

Explanation

Tea board is an autonomous and statutory body created under Tea Act, 1953, headquarters in Kolkata and offices are located Kolkata, London, Moscow, Dubai

30) Which of the following best describe the term greenwashing?

A) CONVEYING A FALSE IMPRESSION THAT A COMPANY'S PRODUCTS ARE ECO-FRIENDLY AND ENVIRONMENTALLY SOUND

- b) Non –inclusion of ecological/environmental costs in the Annual Financial Statements of a country
- C) Ignoring the disastrous ecological consequences while undertaking infrastructure development

d) Making mandatory provisions for environmental costs in a government project/programme

Explanation

Green washing is considered an unsubstantiated claim to deceive consumers into believing that a company's products are environment friendly

31. Consider the following statements:

1. Tight monetary policy of the US Federal Reserve could lead to capital flight.
2. Capital flight may increase the interest cost of firms with existing External Commercial borrowing (ECBs).
3. Devaluation of domestic currency decreases the currency risk associated with ECBs.

Which of the statements given above are correct?

[A] 1 and 2 only

[B] 2 and 3 only

[C] 1 and 3 only

[D] 1, 2 and 3

Answer: A

Explanation

Tight monetary policy of the US Federal Reserve could lead to capital flight. It is also called Taper Tantrum.

Interest risk associated with capital flight, capital flight increases the interest rate on firms with Existing borrowings.

Capital Risk associated with capital flight, devaluation of domestic currency will increase the risk with external commercial borrowings.

It will increase the liability of domestic firms in terms of domestic currency.

32. Consider the following States:

1. Andhra Pradesh
2. Kerala
3. Himachal Pradesh
4. Tripura

How many of the above are generally known as tea-producing States?

[A] Only one State

[B] Only two States

[C] Only three States

[D] All four States

Answer: C

Explanation

Major tea producing states in India are West Bengal, Assam, Kerala, Tamil Nadu, Himachal Pradesh, Karnataka and Arunachal Pradesh.

<https://teaswan.com/blogs/news/top-tea-producing-states-in-india>

33. Q. Consider the following statements:

1. In India credit rating agencies are regulated by the Reserve Bank of India.
2. The rating agency popularly known as ICRA is a public limited company.
3. Brickwork Ratings is an Indian credit rating agency.

Which of the statements given above are correct?

[A] 1 and 2 only

[B] 2 and 3 only

[C] 1 and 3 only

[D] 1, 2 and 3

Answer: B

Explanation

Credit Rating Agencies in India are regulated by SEBI Regulations, 1999 of the Securities and Exchange Board of India Act, 1992.

It analyses a debtor's ability to repay the debt and also rate their credit risk.

CRISIL, CARE, ICRA, SMREA, Brickwork Rating and India Rating and Research Pvt, Ltd are six credit agencies in India.

ICRA was set up in 1991 in Gurugram. The company formerly known as investment information and Credit Rating Agency of India limited.

Brickwork ratings are recognised as external credit assessment agency (ECAI) by Reserve Bank of India (RBI) to carry out credit ratings in India.

It was established in 2007 and is promoted by Canara Bank. It offers ratings for

bank loans, SMEs, corporate governance rating, Municipal Corporation, capital market instrument and financial institutions.

34. With reference to the 'Banks Board Bureau (BBB)' which of the following statements are correct?

1. The Governor of the Chairman of BBB.
2. BBB recommends for the selection of head for Public Sector Banks.
3. BBB helps the Public Sector Banks in developing strategies and capital raising plans.

Select the correct answer using the code given below:

[A] 1 and 2 only

[B] 2 and 3 only

[C] 1 and 3 only

[D] 1, 2 and 3

Answer: B

Explanation

Based on the recommendations of the Nayak committee appointed by RBI, the Union Government in order to revamp PSBs announced BBB in August 2015 as part of seven points Indradhanush Mission to revamp PSBs.

The BBB is empowered to select the heads of public sector banks; it also helps PSBs to develop strategies and capital raising plans.

35. With reference to Convertible Bonds, consider the following statements:

1. As there is an option to exchange the bond for equity, Convertible Bonds pay a lower rate of interest.
2. The option to convert to equity affords the bondholder a degree of indexation to rising consumer prices.

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: C

Explanation

Convertible bonds are hybrid securities that offer investors the best of both stocks and bonds. They provide a guaranteed income stream and pay back the amount you originally lent the company.

It carries lower interest rates payments than straight corporate bonds. The savings in interest expense can be significant.

Investors accept the lower interest payments because the conversion option offers the opportunity benefit from increases in the stock price.

Governments might use indexation as a way to potentially alleviate the negative effects inflation can have on the recipients of transfer payments and entitlements.

Social Security payments for example, indexed to the annual increase in the Consumer Price Index.

36. Consider the following:

1. Asian Infrastructure Investment Bank
2. Missile Technology Control Regime
3. Shanghai Cooperation Organisation

Indian is a member of which of the above?

[A] 1 and 2 only

[B] 3 only

[C] 2 and 3 only

[D] 1, 2 and 3

Answer: D

Explanation

The SCO has eight member states (China, India, Kazakhstan, Kyrgyzstan, Russia, Pakistan, Tajikistan and Uzbekistan)

Missile Technology Control Regime, India became a full member.

Asian Infrastructure Investment Bank members are China, Bangladesh, Brunei, Cambodia, India, Kazakhstan, Kuwait, Laos, Malaysia, Myanmar, Mongolia, Nepal, Oman, Pakistan, Philippines, Qatar, Singapore, Sri Lanka, Thailand,

37. Consider the following statements:

1. Vietnam has been one of the fastest-growing economies in the world in recent years.
2. Vietnam is led by a multi-party political system.
3. Vietnam's economic growth is linked to its integration with global supply chains and focus on exports.
4. For a long time, Vietnam's low labour costs and stable exchange rates have attracted global manufacturers.
5. Vietnam has the most productive e-service sector in the Indo-Pacific region.

Which of the statements given above are correct?

[A] 2 and 4

[B] 3 and 5

[C] 1, 3 and 4

[D] 1 and 2

Answer: C

Explanation

According to a forecast by Prince Water house coopers in February 2017, Vietnam may be the fastest- growing of the World's economies, with a potential annual GDP growth rate of about 5.1 per cent which would make its economy the 10th largest in the world by 2050.

Vietnam's economic growth is linked to its integration with global supply chains and focus on exports.

Vietnam has low labour costs and stable exchange rates which attract global investments.

38. In India which of the following is responsible for maintaining the price stability by controlling price stability?

- A) department of consumer affairs
- B) Expenditure management commission
- C) Financial stability and developmental commission
- D) Reserve bank of India**

Answer: D

Explanation

Monetary policy is the process by which the monetary authority of a country, generally the central bank, controls the supply of money in the economy by its control over interest rates in order to maintain price stability and achieve high economic growth. In India, the central monetary authority is the Reserve bank of India (RBI).

It is designed to maintain the price stability in the economy. Other objectives of the monetary policy of India, as stated by RBI, are:

Price stability

Price stability implies promoting economic development with considerable emphasis on price stability. The centre of focus is to facilitate the environment which is favourable to the architecture that enables the developmental projects to run swiftly while also maintaining reasonable price stability.

Controlled expansion of bank credit

One of the important functions of RBI is the controlled expansion of bank credit and money supply with special attention to seasonal requirement for credit without affecting the output.

Promotion of fixed investment

The aim here is to increase the productivity of investment by restraining non-essential fixed investment.

Restriction of inventories and stocks

Overfilling of stocks and products becoming out-dated due to excess of stock often results in sickness of the unit. To avoid this problem, the central monetary authority carries out this essential function of restricting the inventories. The main objective of this policy is to avoid over-stocking and idle money in the organisation.

Promoting efficiency

It tries to increase the efficiency in the financial system and tries to incorporate

structural changes such as deregulating interest rates, easing operational constraints in the credit delivery system, introducing new money market instruments, etc.

Reducing rigidity

RBI tries to bring about flexibilities in operations which provide a considerable autonomy. It encourages more competitive environment and diversification. It maintains its control over financial system whenever and wherever necessary to maintain the discipline and prudence in operations of the financial system.

39. With reference to Non-Fungible Tokens (NFTs), consider the following statements:

1. They enable the digital representation of physical assets.
2. They are unique cryptographic tokens that exist on a block chain.
3. They can be traded or exchanged at equivalency and therefore can be used as a medium of commercial transactions.

Which of the statements given above are correct?

[A] 1 and 2 only

[B] 2 and 3 only

[C] 1 and 3 only

[D] 1, 2 and 3

Answer: A

Explanation

Anything that can be converted into a digital form can be an NFT.

Everything from drawings, photos, videos, GIFs, music, in-game items, selfies, and even a tweet can be turned into an NFT, which can then be traded online using crypto currency.

Working of NFT: If anyone converts its digital asset to an NFT, he/she will get proof of ownership, powered by block chain

40. Consider the following pairs:

Reservoirs	States
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1. Ghataprabha — Telangana
2. Gandhi Sagar — Madhya Pradesh
3. Indira Sagar — Andhra Pradesh

4. Maithon — Chhattisgarh

How many pairs given above **are not** correctly matched?

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

Answer: C

Explanation

Ghataprabha reservoir across Ghataprabha River near Ghataprabha village in Gokak Taluka of Belgaum district of Karnataka

The Gandhi Sagar Dam is one of the four major dams built on India's Chambal River. The dam is located in the Mandsaur districts of the state of Madhya Pradesh.

The Indira Sagar Dam is the largest dam in India, in terms of volume of water stored in the reservoir. It is located on the Narmada River at the town of Narmada Nagar, Punasa in the Khandwa district of Madhya Pradesh.

The Maithon Dam is located at Maithon, 48 km from Dhanbad, in the state of Jharkhand.

46. With reference to Indian history, consider the following pairs

Historical person known as

1. Aryadeva- Jaina scholar
2. Dignaga- Buddhist scholar
3. Nathamuni –Vaishnava scholar

How many pairs given above are correctly matched?

- a) None of the pairs
- b) Only one pair
- c) Only two pairs**
- d) All three pairs

Answer: C

Explanation:

ARYADEVA- BUDDHIST SCHOLAR

DIGNAGA- BUDDHIST SCHOLAR

NATHAMUNI-VAISHNAVA SCHOLAR

47. With reference to Indian history, consider the following statements

1. The first Mongol invasion of India happened during the reign of Jalal-ud-din Khalji.
2. During the reign of Ala-ud-din Khaliji, one Mongol assault marched up to Delhi and besieged the city.
3. Muhammad- bin- Tughlaq temporarily lost portions of north-west of his kingdom to Mongols.

Which of the statements given above is / are correct?

- A) 1 and 2
- B) 2 only**
- C) 1 and 3
- D) 3 Only

Answer; B

Explanation:

Chengez Khan invaded India during the reign of Iltumish for the first time. He was the founder and first Great Khan of the Mongol Empire.

During the reign of Ala-ud-din Khalji, one of the Mongol invasions reached till the outskirts of Delhi city and besieged it.

Muhammad-bin-Tughlaq defeated the Mongols and he had not lost any of the portions of his kingdom to them.

48. With reference to Indian history, who of the following were known as Kulah-Daran?

- A) Arab merchants
- B) Qalandars
- C) Persian calligraphists
- D) Sayyids**

Answer; D

Explanation

The Sayyids were claimed to descent from the Prophet through his daughter Fatima. They commanded special respect in Muslim society.

Even the Timur protected the life of Sayyids during his invasion in India. They pointed cap (kulah) and they were known as Kulah Daran during Delhi sultanate.

49. With reference to Indian history, consider the following statements

1. The Dutch established their factories / warehouses on the east coast on lands granted to them by Gajapati rulers.
2. Alfonso de Albuquerque captured Goa from the Bijapur Sultanate.
3. The English East India Company established a factory at Madras on a plot of land leased from a representative of the Vijaynagara Empire.

Which of the statements given above are correct?

- A) 1 and 2 only
- B) 2 and 3 only**
- C) 1 and 3 only
- D) 1, 2 and 3

Answer: B

Explanation

In 1602, the united East India Company of the Netherlands was formed and given permission by the Dutch government to trade in the East Indies including India. Gajapati rule has declined in 1541.

Alfonso de Albuquerque captured Goa from the Bijapur sultanate king Adil Shahis with the help of Vijaynagara Empire.

East India Company established a factory in Madras in 1639.

50. According to Kautilya's Arthashastra, which of the following are correct?

1. A person could be a slave as a result of judicial punishment
2. If a female slave bore her master a son, she was legally free.
3. If a son born to a female slave was fathered by her master, the son was entitled to the legal status of the master's son.

Which of the statements given above are correct?

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

31. Consider the following statements:

1. Tight monetary policy of the US Federal Reserve could lead to capital flight.
2. Capital flight may increase the interest cost of firms with existing External Commercial borrowing (ECBs).
3. Devaluation of domestic currency decreases the currency risk associated with ECBs.

Which of the statements given above are correct?

[A] 1 and 2 only

[B] 2 and 3 only

[C] 1 and 3 only

[D] 1, 2 and 3

Answer: A

Explanation

Tight monetary policy of the US Federal Reserve could lead to capital flight. It is also called Taper Tantrum.

Interest risk associated with capital flight, capital flight increases the interest rate on firms with Existing borrowings.

Capital Risk associated with capital flight, devaluation of domestic currency will increase the risk with external commercial borrowings.

It will increase the liability of domestic firms in terms of domestic currency.

32. Consider the following States:

1. Andhra Pradesh

2. Kerala
3. Himachal Pradesh
4. Tripura

How many of the above are generally known as tea-producing States?

- [A] Only one State
- [B] Only two States
- [C] Only three States**
- [D] All four States

Answer: C

Explanation

Major tea producing states in India are West Bengal, Assam, Kerala, Tamil Nadu, Himachal Pradesh, Karnataka and Arunachal Pradesh.

<https://teaswan.com/blogs/news/top-tea-producing-states-in-india>

33. Q. Consider the following statements:

1. In India credit rating agencies are regulated by the Reserve Bank of India.
2. The rating agency popularly known as ICRA is a public limited company.
3. Brickwork Ratings is an Indian credit rating agency.

Which of the statements given above are correct?

- [A] 1 and 2 only
- [B] 2 and 3 only**
- [C] 1 and 3 only
- [D] 1, 2 and 3

Answer: B

Explanation

Credit Rating Agencies in India are regulated by SEBI Regulations, 1999 of the Securities and Exchange Board of India Act, 1992.

It analyses a debtor's ability to repay the debt and also rate their credit risk. CRISIL, CARE, ICRA, SMREA, Brickwork Rating and India Rating and

Research Pvt, Ltd are six credit agencies in India.

ICRA was set up in 1991 in Gurugram. The company formerly known as investment information and Credit Ration Agency of India limited.

Brickwork ratings are recognised as external credit assessment agency (ECAI) by Reserve Bank of India (RBI) to carry out credit ratings in India.

It was established in 2007 and is promoted by Canara Bank. It offers ratings for bank loans, SMEs, corporate governance rating, Municipal Corporation, capital market instrument and financial institutions.

34. With reference to the 'Banks Board Bureau (BBB) which of the following statements are correct?

1. The Governor of the Chairman of BBB.
2. BBB recommends for the selection of head for Public Sector Banks.
3. BBB helps the Public Sector Banks in developing strategies and capital raising plans.

Select the correct answer using the code given below:

[A] 1 and 2 only

[B] 2 and 3 only

[C] 1 and 3 only

[D] 1, 2 and 3

Answer: B

Explanation

Based on the recommendations of the Nayak committee appointed by RBI, the Union Government in order to revamp PSBs announced BBB in August 2015 as part of seven points Indradhanush Mission to revamp PSBs.

The BBB is empowered to select the heads of public sector banks; it also helps PSBs to develop strategies and capital raising plans.

35. With reference to Convertible Bonds, consider the following statements:

1. As there is an option to exchange the bond for equity, Convertible Bonds pay a lower rate of interest.
2. The option to convert to equity affords the bondholder a degree of indexation to rising consumer prices.

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: C

Explanation

Convertible bonds are hybrid securities that offer investors the best of both stocks and bonds. They provide a guaranteed income stream and pay back the amount you originally lent the company.

It carries lower interest rates payments than straight corporate bonds. The savings in interest expense can be significant.

Investors accept the lower interest payments because the conversion option offers the opportunity benefit from increases in the stock price.

Governments might use indexation as a way to potentially alleviate the negative effects inflation can have on the recipients of transfer payments and entitlements.

Social Security payments for example, indexed to the annual increase in the Consumer Price Index.

36. Consider the following:

1. Asian Infrastructure Investment Bank
2. Missile Technology Control Regime
3. Shanghai Cooperation Organisation

Indian is a member of which of the above?

[A] 1 and 2 only

[B] 3 only

[C] 2 and 3 only

[D] 1, 2 and 3

Answer: D

Explanation

The SCO has eight member states (China, India, Kazakhstan, Kyrgyzstan,

Russia, Pakistan, Tajikistan and Uzbekistan)

Missile Technology Control Regime, India became a full member.

Asian Infrastructure Investment Bank members are China, Bangladesh, Brunei, Cambodia, India, Kazakhstan, Kuwait, Laos, Malaysia, Myanmar, Mongolia, Nepal, Oman, Pakistan, Philippines, Qatar, Singapore, Sri Lanka, Thailand, Uzbekistan and Vietnam.

37. Consider the following statements:

1. Vietnam has been one of the fastest-growing economies in the world in recent years.
2. Vietnam is led by a multi-party political system.
3. Vietnam's economic growth is linked to its integration with global supply chains and focus on exports.
4. For a long time, Vietnam's low labour costs and stable exchange rates have attracted global manufacturers.
5. Vietnam has the most productive e-service sector in the Indo-Pacific region.

Which of the statements given above are correct?

[A] 2 and 4

[B] 3 and 5

[C] 1, 3 and 4

[D] 1 and 2

Answer: C

Explanation

According to a forecast by Prince Water house coopers in February 2017, Vietnam may be the fastest- growing of the World's economies, with a potential annual GDP growth rate of about 5.1 per cent which would make its economy the 10th largest in the world by 2050.

Vietnam's economic growth is linked to its integration with global supply

chains and focus on exports.

Vietnam has low labour costs and stable exchange rates which attract global investments.

38. In India which of the following is responsible for maintaining the price stability by controlling price stability?

- A) department of consumer affairs
- B) Expenditure management commission
- C) Financial stability and developmental commission
- D) Reserve bank of India**

Answer: D

Explanation

Monetary policy is the process by which the monetary authority of a country, generally the central bank, controls the supply of money in the economy by its control over interest rates in order to maintain price stability and achieve high economic growth. In India, the central monetary authority is the Reserve bank of India (RBI).

It is designed to maintain the price stability in the economy. Other objectives of the monetary policy of India, as stated by RBI, are:

Price stability

Price stability implies promoting economic development with considerable emphasis on price stability. The centre of focus is to facilitate the environment which is favourable to the architecture that enables the developmental projects to run swiftly while also maintaining reasonable price stability.

Controlled expansion of bank credit

One of the important functions of RBI is the controlled expansion of bank credit and money supply with special attention to seasonal requirement for credit without affecting the output.

Promotion of fixed investment

The aim here is to increase the productivity of investment by restraining non-essential fixed investment.

Restriction of inventories and stocks

Overfilling of stocks and products becoming out-dated due to excess of stock

often results in sickness of the unit. To avoid this problem, the central monetary authority carries out this essential function of restricting the inventories. The main objective of this policy is to avoid over-stocking and idle money in the organisation.

Promoting efficiency

It tries to increase the efficiency in the financial system and tries to incorporate structural changes such as deregulating interest rates, easing operational constraints in the credit delivery system, introducing new money market instruments, etc.

Reducing rigidity

RBI tries to bring about flexibilities in operations which provide a considerable autonomy. It encourages more competitive environment and diversification. It maintains its control over financial system whenever and wherever necessary to maintain the discipline and prudence in operations of the financial system.

39. With reference to Non-Fungible Tokens (NFTs), consider the following statements:

1. They enable the digital representation of physical assets.
2. They are unique cryptographic tokens that exist on a block chain.
3. They can be traded or exchanged at equivalency and therefore can be used as a medium of commercial transactions.

Which of the statements given above are correct?

[A] 1 and 2 only

[B] 2 and 3 only

[C] 1 and 3 only

[D] 1, 2 and 3

Answer: A

Explanation

Anything that can be converted into a digital form can be an NFT.

Everything from drawings, photos, videos, GIFs, music, in-game items, selfies, and even a tweet can be turned into an NFT, which can then be traded online using crypto currency.

Working of NFT: If anyone converts its digital asset to an NFT, he/she will get proof of ownership, powered by block chain

40. Consider the following pairs:

Reservoirs

States

1. Ghataprabha — Telangana
2. Gandhi Sagar — Madhya Pradesh
3. Indira Sagar — Andhra Pradesh
4. Maithon — Chhattisgarh

How many pairs given above **are not** correctly matched?

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

Answer: C

Explanation

Ghataprabha reservoir across Ghataprabha River near Ghataprabha village in Gokak Taluka of Belgaum district of Karnataka

The Gandhi Sagar Dam is one of the four major dams built on India's Chambal River. The dam is located in the Mandsaur districts of the state of Madhya Pradesh.

The Indira Sagar Dam is the largest dam in India, in terms of volume of water stored in the reservoir. It is located on the Narmada River at the town of Narmada Nagar, Punasa in the Khandwa district of Madhya Pradesh.

The Maithon Dam is located at Maithon, 48 km from Dhanbad, in the state of Jharkhand.

41. In the Government of India Act, 1919 the functions of provincial government were divided into “Reserved” and “Transferred” Subjects. Which of the following were treated as “Reserved”

1. Administration of Justice
2. Local Self-Government
3. Land Revenue
4. Police

Select the correct answer using the code given below

- a) 1, 2 and 3

b) 2, 3 and 4

c) 1, 3 and 4

D) 1, 2 AND 4

Explanation

The Reserved subjects came under the heading of Law and Order and those are- Justice, Police, Land Revenue, and Irrigation
Transferred (under control of Indian Ministers) – Local Self-Government, Education, public health, public works, and agriculture, forests, and fisheries

42. In medieval India the term “Fanam” referred to

a) Clothing

B) COINS

c) Ornaments

d) Weapons

Explanation

Fanam is a currency issued in Madras Presidency
The Travancore Fanam is a type of money that was issued by the State of Travancore

43. Consider the following freedom fighters

1. Barindra Kumar Ghosh

2. Jogesh Chandra Chatterjee

3. Rash Behari Bose

Who of the above was/ were actively associated with the Ghadar Party

a) 1 and 2

b) 2 Only

c) 1 and 3

d) 3 ONLY

Explanation

Ghadar party was an international and political movement consisting of expatriate Indians to overthrow British rule in India
Sohan Singh, Kartar Singh, Abdul Mohammad Barakatullah, and Rash Behari Bose were Prominent

44. With reference to the proposals of Cripps Mission, consider the following statements

- 1. The constituent assembly would have members nominated by the provincial assemblies as well as princely states**
- 2. Any Province, which is not prepared to accept the new constitution would have the right to sign a separate agreement with Britain regarding its future status**

Which of the above statements is/are correct?

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

45. With reference to Indian history, consider the following texts

- 1. Nettipakarana**
- 2. Parishishtaparvan**
- 3. Avadanashataka**
- 4. Trishashtilakshana Mahapurana**

Which of the above are Jain Texts?

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

46. With reference to Indian history, consider the following pairs

Historical person known as

- 4. Aryadeva- Jaina scholar**
- 5. Dignaga- Buddhist scholar**
- 6. Nathamuni –Vaishnava scholar**

How many pairs given above are correctly matched?

- e) None of the pairs
- f) Only one pair
- g) Only two pairs
- h) All three pairs

Answer: C

Explanation:

ARYADEVA- BUDDHIST SCHOLAR

DIGNAGA- BUDDHIST SCHOLAR

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- 4. The first Mongol invasion of India happened during the reign of Jalal-ud-din Khalji.
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- 6. Muhammad- bin- Tughlaq temporarily lost portions of north-west of his kingdom to Mongols.

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Explanation

In 1602, the united East India Company of the Netherlands was formed and given permission by the Dutch government to trade in the East Indies including India. Gajapati rule has declined in 1541.

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3. If a son born to a female slave was fathered by her master, the son was entitled to the legal status of the master's son.

Which of the statements given above are correct?

- e) 1 and 2
- f) 2 and 3
- g) 1 and 3
- h) 1, 2 and 3

51. "Climate Action Tracker" which monitors the emission reduction pledges of different countries is a :

(A) DATABASE CREATED BY COALITION OF RESEARCH ORGANISATIONS

(b) Wing of "International Panel of Climate Change"

(c) Committee under "United Nations Framework Convention on Climate Change"

(d) Agency promoted and financed by United Nations Environment Programme and World Bank

Correct Option: (a)

Explanation:

- The Climate Action Tracker is an independent scientific analysis that tracks government climate action and measures it against the globally agreed Paris Agreement aim of "holding warming well below 2°C, and pursuing efforts to limit warming to 1.5°C." A collaboration of two organisations, Climate Analytics and NewClimate Institute, the CAT has been providing this independent analysis to policymakers since 2009.
 - CAT covers all the biggest emitters and a representative sample of smaller emitters covering about 85% of global emissions and approximately 70% of global population. The national actions we track are:
 - Effect of climate policies and action on emissions: The policies a government has implemented or enacted and how these are likely to affect national emission over the time period to 2030, and where possible beyond.
-

- **Impact of pledges, targets and NDCs on national emissions over the time period to 2030, and where possible beyond.**
- **Comparability of effort against countries' fair share and modelled domestic pathways: Whether a government is doing its "fair share" compared with others towards the global effort to limit warming consistent with the Paris Agreement , and whether its mitigation efforts on its own territory are in line with global least cost pathways.**

CAT calculates global warming consequence and emissions gaps

The Climate Action Tracker assesses the total global effort of NDCs, pledges and current policies on:

- **Global warming over the 21st century. Global emissions pathways consistent with government actions are analyzed and climate consequences projected using the carbon-cycle / climate model MAGICC .**
- **Emissions Gap: The gap in 2030 between the emissions levels needed to limit warming below a 2°C increase above pre-industrial levels (and to bring warming below 1.5°C by 2100) and the emissions that are projected to result from NDCs, pledges and current policies.**
- **CAT quantifies and evaluates climate change mitigation targets, policies and action. It also aggregates country action to the global level, determining likely temperature increases during the 21st century using the MAGICC climate model.**

CAT further develops sectoral analysis to illustrate required pathways for meeting the global temperature goals.

52. Consider the following statements :

1. "The Climate Group" is an international non-profit organization that drives climate action by building large networks and runs them.
2. The International Energy Agency in partnership with the Climate Group launched a global initiative "EP100".
3. EP100 brings together leading companies committed to driving innovation in energy efficiency and increasing competitiveness while delivering on emission reduction goals.
4. Some Indian companies are members of EP100.
5. The International Energy Agency is the Secretariat to the "Under2 Coalition".

Which of the statements given above are correct?

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

(d) 1, 2, 3, 4 and 5

Correct Option: (b)

Explanation:

1. **CLIMATE GROUP IS** an international non-profit founded in 2003, with offices in London, New York, New Delhi, Amsterdam and Beijing. Their mission is to drive climate action. Fast. This group builds and run networks. Statement 1 is correct.
2. **EP100** is a global initiative led by the international non-profit Climate Group, bringing together over 120 energy smart businesses committed to measuring and reporting on energy efficiency improvements. Statement 2 is incorrect. Statement 3 is correct.
3. **Mahindra and Mahindra** became the first Indian company to join the EP100 initiative. Statement 4 is correct.
4. **Climate Group** is the Secretariat to the Under2 Coalition and works with governments to accelerate climate action through four work streams:
 - Pathways
 - Policy action
 - Transparency
 - Diplomacy

Statement 5 is incorrect.

53. "If rainforests and tropical forests are the lungs of the Earth, then surely wetlands function as its kidneys." Which one of the following functions of wetlands best reflects the above statements?

- (a). The water cycle in wetlands involves surface runoff, subsoil percolation and evaporation.
- (b). Algae from the nutrient base upon which fish, crustaceans, molluscs, birds, reptiles and mammals thrive.
- (c). Wetlands play a vital role in maintaining sedimentation balance and soil stabilization.
- (d). Aquatic plants absorb heavy metals and excess nutrients.

Correct Option: D

Explanation:

The water cycle in wetlands involves surface runoff, subsoil percolation and evaporation.

Explanation: Your kidneys remove wastes and extra fluid from your body. Your kidneys also remove acid that is produced by the cells of your body and maintain a healthy balance of water, salts, and minerals. In the same

manner As sediment, excess nutrients and chemicals flow off of the land, wetlands filter the run off before it reaches open water. Nutrients are stored and absorbed by plants or microorganisms. Sediment settles at the bottom after reaching an area with slow water flow

54. In the context of In WHO Air Quality Guidelines, consider the following statements:

1. The 24-hour mean of PM_{2.5} should not exceed 15 $\mu\text{g}/\text{m}^3$ and annual mean of PM_{2.5} should not exceed 5 $\mu\text{g}/\text{m}^3$.
2. In a year, the highest levels of ozone pollution occur during the periods of inclement weather.
3. PM₁₀ can penetrate the lung barrier and enter the bloodstream.
4. Excessive ozone in the air can trigger asthma.

Which of the statements given above are correct?

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

Correct Option: (b)

Explanation:

Solution: (b) 1 and 4 only

- **Explanation:** The updated guidelines state that annual average concentrations of PM_{2.5} should not exceed 5 $\mu\text{g}/\text{m}^3$, while 24-hour average exposures should not exceed 15 $\mu\text{g}/\text{m}^3$
- the highest levels of ozone pollution occur during periods of sunny weather.
- PM₁₀ are capable of penetrating deep into the lungs but PM_{2.5} can even enter the bloodstream

Long-term exposure to ozone is linked to aggravation of asthma, and is likely to be one of many causes of asthma development. Studies in locations with elevated concentrations also report associations of ozone with deaths from respiratory causes.



WHO AIR QUALITY GUIDELINES



NO₂

2005: 40 $\mu\text{g}/\text{m}^3$, annual

2021: 10 $\mu\text{g}/\text{m}^3$, annual

PM_{2.5}

2005: 10 $\mu\text{g}/\text{m}^3$, annual

2021: 5 $\mu\text{g}/\text{m}^3$, annual



PM₁₀

2005: 25 $\mu\text{g}/\text{m}^3$, annual

2021: 15 $\mu\text{g}/\text{m}^3$, annual



Ozone

2005: 100 $\mu\text{g}/\text{m}^3$, 8-hour max

2021: 100 $\mu\text{g}/\text{m}^3$, 8-hour max

55. With reference to "Gucchi" sometimes mentioned in the news, consider the following statements:

1. It is a fungus.
2. It grows in some Himalayan forest areas.
3. It is commercially cultivated in the Himalayan foothills of north- eastern India.

Which of the statements given above is/are correct?

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

Correct Option: (c)

Explanation:

Solution: (c) 1 and 2

- **Explanation:** Guchhi mushroom is a species of fungus in the family

Morchellaceae of the Ascomycota.

- Grows in himalayan foothills

The mushrooms cannot be cultivated commercially and grow in conifer forests across temperature regions, and the foothills in Himachal Pradesh, Uttaranchal, and Jammu and Kashmir.



56. With reference to polyethylene terephthalate, the use of which is so widespread in our daily lives, consider the following statements :

1. Its fibres can be blended with wool and cotton fibres to reinforce their properties.
2. Containers made of it can be used to store any alcoholic beverage.
3. Bottles made of it can be recycled into other products.
4. Articles made of it can be easily disposed of by incineration without causing greenhouse gas emissions.

Which of the statements given above are correct ?

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

Correct Option: (a)

Explanation:

Solution: (a) 1 and 3

- **Explanation:** They are often used in durable-press blends with other fibres such as rayon, wool, and cotton, reinforcing the inherent properties of those fibres while contributing to the ability state govt bans it and says its harmful
- PET is completely recyclable, and is the most recycled plastic in the U.S and worldwide. More than 1.5 billion pounds of used PET bottles

and containers are recovered in the United States each year for recycling.

The burning of plastics releases toxic gases like dioxins, furans, mercury and polychlorinated biphenyls (better known as BCPs) into the atmosphere, and poses a threat to vegetation, and human and animal health.

57. Which of the following is not a bird ?

- (a) Golden Mahseer
- (b) Indian Nightjar
- (c) Spoonbill
- (d) White Ibis

Correct Option: (a)

Explanation:

Solution: (a) Golden Mahseer



Explanation: mahseer—a large freshwater fish also called the tiger of the water and found only in the Cauvery river basin

- The Indian nightjar species are nocturnal birds with long pointed wings and short legs
- The Spoonbill is a unique aquatic bird with an odd-shaped, flattened beak
- White Ibises are large wading birds with football-shaped bodies

58. Which of the following are nitrogen-fixing plants ?

1. Alfalfa
2. Amaranth

3. Chickpea
4. Clover
5. Purslane (Kulfa)
6. Spinach

Select the correct answer using the code given below :

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

Correct Option: (a)

Explanation:

Amaranth, spinach, purslane are not nitrogen fixing plants and we have to provide nitrogen through fertilizers for their proper growth and development.

59. "Biorock technology" is talked about in which one of the following situations ?

- (a) Restoration of damaged coral reefs
- (b) Development of building materials using plant residues
- (c) Identification of areas for exploration/extraction of shale gas
- (d) Providing salt licks for wild animals in forests/protected areas.

Correct Option: (a)

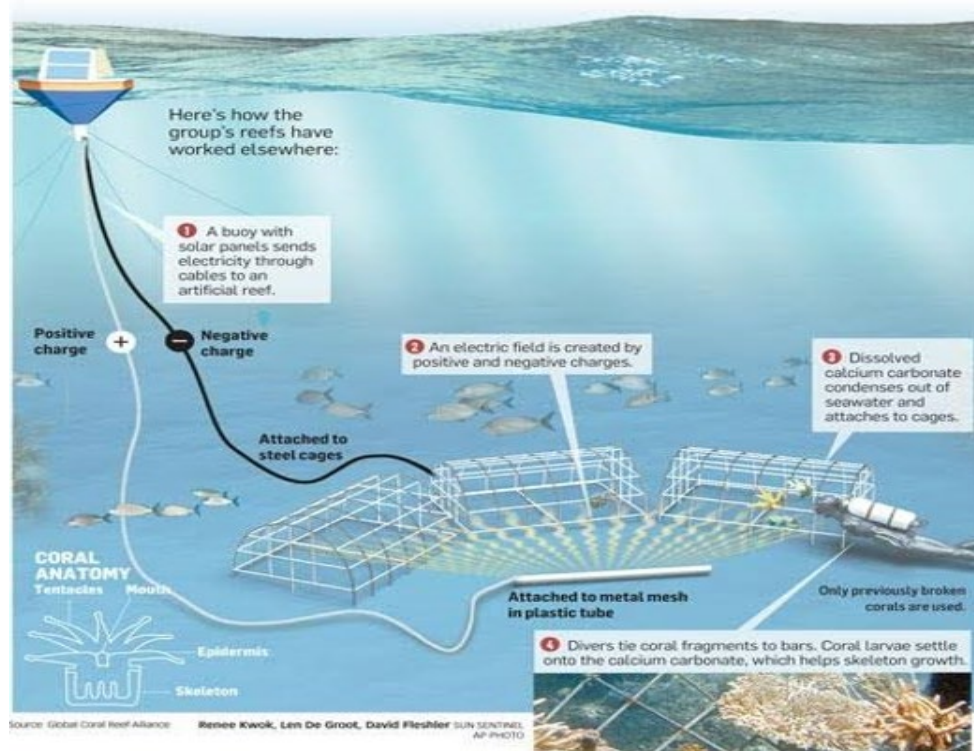
Explanation:

Explanation: BIOROCK OR Mineral Accretion Technology is a coral reef restoration technology that utilizes low voltage electricity to improve the health and growth rates of corals and other marine organisms.

- The technology works by passing a small amount of electrical current through electrodes in the water.
- When a positively charged anode and negatively charged cathode are placed on the seafloor, with an electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode).
- This results in calcium carbonate formation. Coral larvae adhere to the CaCO_3 and grow quickly.

Fragments of broken corals are tied to the biorock structure, where they are able to grow at least four to six times faster than their actual growth as they

need not spend their energy in building their own calcium carbonate skeletons.



60. The “Miyawaki method” is well known for the:

- (a) Promotion of commercial farming in arid and semi-arid areas
- (b) Development of gardens using genetically modified flora
- (c) Creation of mini forests in urban areas
- (d) Harvesting wind energy on coastal areas and on sea surfaces

Correct Option: (c)

Explanation:

Solution: (c) Creation of mini forests in urban areas

Explanation: The method involves planting two to four trees per square meter.

Miyawaki forests grow in two to three years and are self-sustaining



WHAT IS THE MIYAWAKI METHOD?

➤ Named after Japanese botanist Akira Miyawaki who invented it

➤ It involves planting of several species very close together in a small pit

➤ Plants draw nutrients from each other and become healthy

➤ A dense forest, which grows naturally in 300 years is created in 30-35 years

➤ Trees grow 10 times faster, and absorb 30 times more carbon dioxide

➤ Density is 30 times that of normal tree plantations



MIYAWAKI FORESTS IN VADODARA

Private farm, Sun Pharma Road

Area | 12,000 square feet

Number of trees planted | 3,500

VMC's Rajivnagar STP, Harni

Area | 16,000 square feet

Number of trees planted | 4,000

Bhoj village, Padra

Forest department's demonstration plot

Area | 30 x 10 metre

Number of trees planted | 831

61. Consider the following :

1. Aarogya Setu
2. CoWIN
3. DigiLocker
4. DIKSHA

Which of the above are built on top of open-source digital platforms?

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

Correct Option: (d)

Explanation:

- An open source platform is any platform that allows access to its source code to any other users or developers. An open source platform is one aspect of a wide availability of open source products. In contrast with closed source software, which is a type of proprietary software that reserves rights only to authorized individuals, open source software aims to allow equal access to anyone and everyone. Open

source products are oftentimes part of the free software movement, and the associated Free Software Foundation founded by Richard Stallman in 1985. Rather than being concerned with the cost of the software, the free software movement, and associated foundation, aim to ensure that software users are free to run software, study the software, modify the software, and share such modifications. However, not all open source platforms are part of the free software movement, but they are almost always part of the open source software movement.

- Aarogya Setu , India's coronavirus (COVID-19) contact-tracing and self-assessment app is now open source .
- DigiLocker is an initiative by the government to offer Indian citizens a free platform to store and access important documents. The platform uses several open source technologies to deliver a mass solution and contributes back to the ever-growing community.
- DIKSHA is built using Sunbird ED, a fully functional solution building block available as open-source software under MIT license and is part of Sunbird, a “Made in India, Made for the World” digital public good (DPG).

Co-WIN, which is owned by the Ministry of Health and Family Welfare, was developed using open source software. This type of software allows users to modify the source code and distribute it.

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

1. Web 3.0 technology enables people to control their own data.
2. In Web 3.0 world, there can be blockchain based social networks.
3. Web 3.0 is operated by users collectively rather than a corporation.

Which of the statements given above are correct?

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

Correct Option: (d)

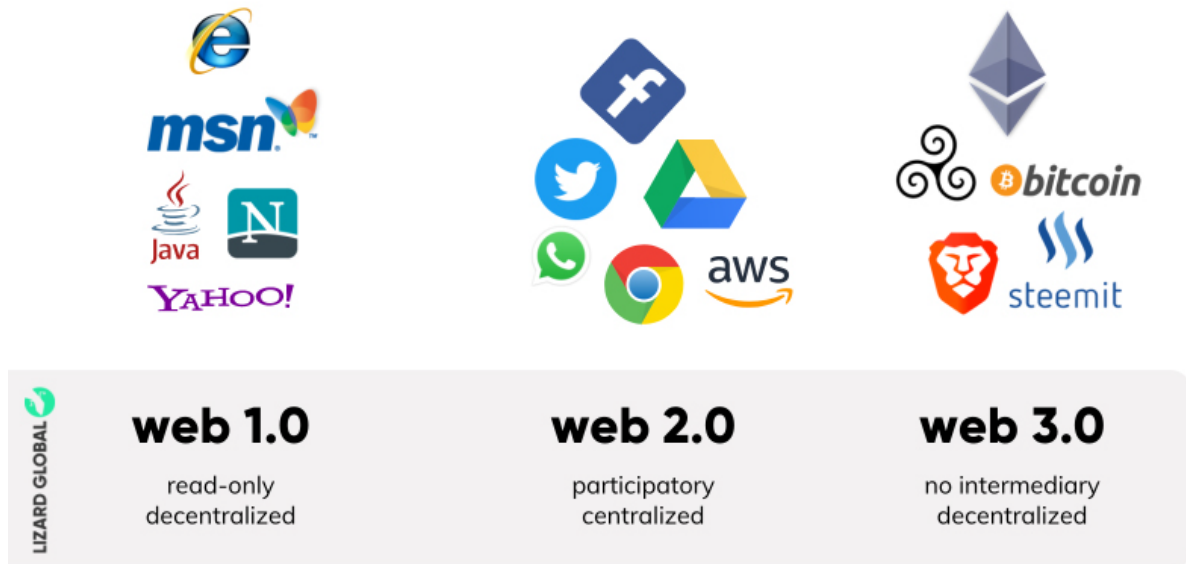
Explanation:

- Web 2.0 and Web 3.0 represent successive, advanced iterations of the original Web 1.0 of the 1990s and early 2000s. Web 2.0 is the current version of the web with which we are all familiar, while Web 3.0 represents its next phase, which will be decentralized, open, and of greater utility.
- Innovations such as smartphones, mobile internet access, and social

networks have driven the exponential growth of Web 2.0.

- Web 2.0 has disrupted sectors that fail to integrate the new web-based business model.

Defining features of Web 3.0 include decentralization; trustlessness and permissionlessness; artificial intelligence (AI) and machine learning; and connectivity and ubiquity.



63. With reference to "Software as a Service (SaaS)", consider the following statements :

1. SaaS buyers can customise the user interface and can change data fields.
2. SaaS users can access their data through their mobile devices.
3. Outlook, Hotmail and Yahoo! Mail are forms of SaaS. .

Which of the statements given above are correct?

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

Correct Option: (d)

Explanation:

- Software as a service (SaaS) allows users to connect to and use cloud-based apps over the Internet. Common examples are email, calendaring and office tools (such as Microsoft Office 365).
- 2. SaaS provides a complete software solution which you purchase on a pay-as-you-go basis from a cloud service provider. You rent the use

of an app for your organisation and your users connect to it over the Internet, usually with a web browser. Statement 1 is incorrect.

- Access app data from anywhere. With data stored in the cloud, users can access their information from any Internet-connected computer or mobile device. And when app data is stored in the cloud, no data is lost if a user's computer or device fails. Statement 2 is correct.

If you have used a web-based email service such as Outlook, Hotmail or Yahoo! Mail, then you have already used a form of SaaS. With these services, you log into your account over the Internet, often from a web browser. The email software is located on the service provider's network and your messages are stored there as well. You can access your email and stored messages from a web browser on any computer or Internet-connected device. Statement 3 is correct.

64. Which one of the following statements best reflects the idea behind the “Fractional Orbital Bombardment System” often talked about in media ?

- (a) A hypersonic missile is -launched into space to counter the asteroid approaching the Earth and explode it in space.
- (b) A spacecraft lands on another planet after making several orbital motions.
- (c) A missile is put into a stable orbit around the Earth and deorbits over a target on the Earth.
- (d) A spacecraft moves along a comet with the same speed and places a probe on its surface.'

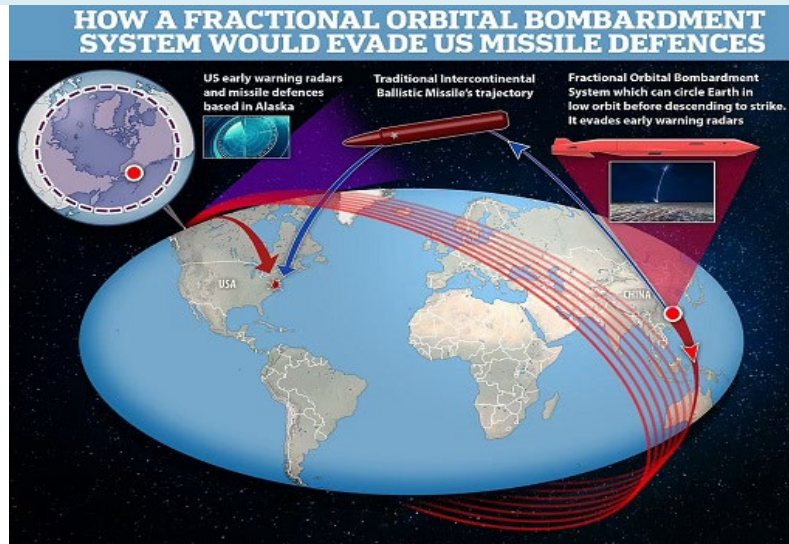
Correct Option: (c)

Explanation:

- A Fractional Orbital Bombardment System (FOBS) is a warhead delivery system that uses a low earth orbit towards its target destination. Just before reaching the target, it deorbits through a retrograde engine burn.
- The idea behind FOBS is, a warhead is put into a stable orbit and it deorbits over the target.

If the target and the launch position is lined up and the warhead keeps going round, it will complete a circle. Obviously, with the earth moving during this, it is more of a spiral than a ring, but the horizontal movement is countered in such a way that the warhead still goes over the target.





65. Which one of the following is the context in which the term “qubit” is mentioned ?

- (a) Cloud Services
- (b) Quantum Computing
- (c) Visible Light Communication Technologies
- (d) Wireless Communication Technologies

Correct Option: (b)

Explanation:

The phrase ‘quantum supremacy’ was coined in the year 2011 by John Preskill, Professor of Theoretical Physics at the California Institute of Technology.

- Quantum supremacy refers to a problem-solving process by the quantum computer that cannot be solved by a classical computer in its normal lifetime.
 - The concept is related to the speed at which a quantum computer performs.
- Quantum computers are different from binary digital electronic computers that are based on transistors (a semiconductor device used to amplify or switch electronic signals and electrical power).
 - The common digital computing requires the data to be encoded into binary digits (bits), each of which is always in one of two definite states (0 or 1).
 - Quantum computation uses quantum bits (qubits).

Quantum Bit (Qubit)

- A quantum bit (qubit) is the smallest unit of quantum information, which is the quantum analog of the regular computer bit, used in the field of quantum computing.
 - They operate according to two key principles of quantum physics: superposition and entanglement.? Superposition means that each

qubit can represent both a '1' and a '0' at the same time.

- Entanglement means that qubits in a superposition state can be correlated with each other; that is, the state of one qubit (whether it is a 1 or a 0) can depend on the state of another qubit. It means that particles remain connected so that actions performed on one affect the other, even when separated by great distances. The phenomenon so riled Albert Einstein that he called it "spooky action at a distance."

Using these two principles, qubits can act as more sophisticated switches, enabling quantum computers to function in ways that allow them to solve difficult problems that are unmanageable using today's computers.

66. Consider the following communication technologies :

1. Closed-circuit Television
2. Radio Frequency Identification
3. Wireless Local Area Network

Which of the above are considered Short-Range devices/technologies ?

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

Correct Option: (d)

Explanation:

Short Range Devices (SRD) are radio devices that offer a low risk of interference with other radio services, usually because their transmitted power, and hence their range, is low. The definition 'Short Range Device' may be applied to many different types of wireless equipment, including various forms of:

- Access control (including door and gate openers)
- Alarms and movement detectors
- Closed-circuit television (CCTV)
- Cordless audio devices, including wireless microphones
- Industrial control
- Local Area Networks
- Medical implants
- Metering devices

- Remote control
- Radio frequency identification (RFID)
- Road Transport Telematics
- Telemetry.

Short range devices often benefit from a relaxed regulatory regime compared with other radio communications equipment. As a general principle, a user is licence free to operate such equipment, some specific cases may require an individual licence.

67. Consider the following statements :

1. Biofilms can form on medical implants within human tissues.
2. Biofilms can form on food and food processing surfaces.
3. Biofilms can exhibit antibiotic resistance.

Which of the statements given above are correct ?

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

Correct Option: (d)

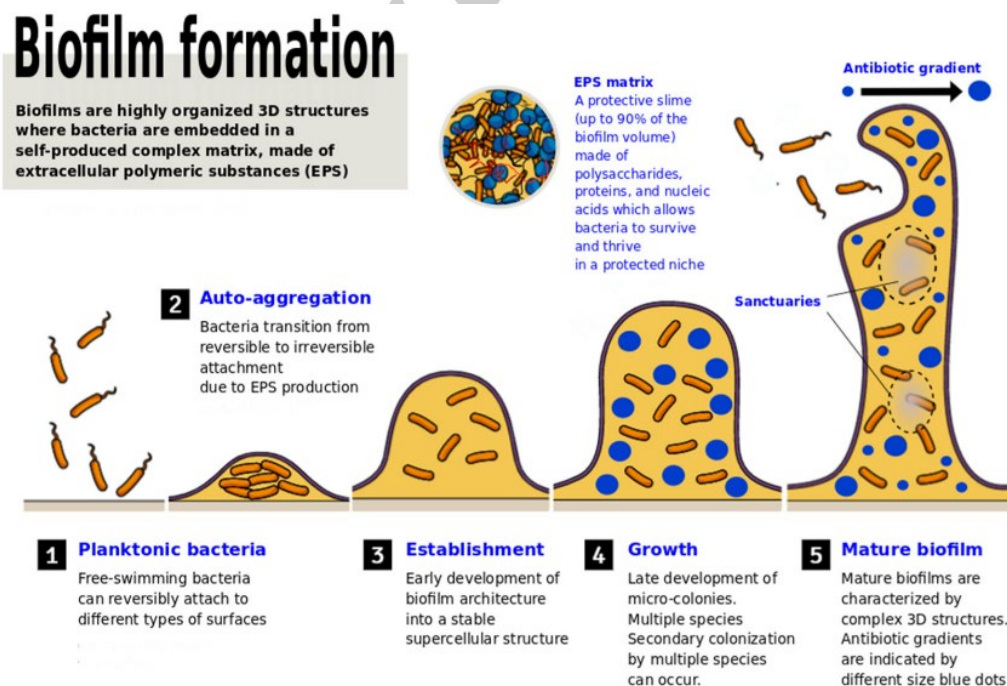
Explanation:

1. **Biofilms are a collective of one or more types of microorganisms that can grow on many different surfaces. Microorganisms that form biofilms include bacteria, fungi and protists.**
2. **One common example of a biofilm dental plaque, a slimy buildup of bacteria that forms on the surfaces of teeth. Pond scum is another example. Biofilms have been found growing on minerals and metals. They have been found underwater, underground and above the ground. They can grow on plant tissues and animal tissues, and on implanted medical devices such as catheters and pacemakers.**
3. **Biofilm is an association of micro-organisms in which microbial cells adhere to each other on living or non-living surfaces within a self-produced matrix of extracellular polymeric substance.**
4. **Biofilm formation is a multi-step process starting with attachment to a surface then formation of micro-colony that leads to the formation of three dimensional structure and finally ending with maturation**

followed by detachment.

5. During biofilm formation many species of bacteria are able to communicate with one another through a specific mechanism called quorum sensing. It is a system of stimulus to co-ordinate different gene expression.
6. Bacterial biofilm is less accessible to antibiotics and the human immune system and thus poses a big threat to public health because of its involvement in a variety of infectious diseases. Statement 3 is correct.
7. Biofilms may form on living or non-living surfaces and can be prevalent in natural, industrial and hospital settings.
8. Biofilms can be present on the teeth of most animals as dental plaque, where they may cause tooth decay and gum disease. Statement 1 is correct

A combination of several pathogens can synergistically interact to form biofilms in the food industry. In food-processing environments, bacteria are able to exist as multispecies biofilms, from where both spoilage and pathogenic bacteria can contaminate food. For instance in the fishing industry, fresh fish products can suffer from biofilm formation by mixed pathogenic species (*Aeromonas hydrophila*, *L. monocytogenes*, *S. enterica*, or *Vibrio* spp.), which can imply significant health and economic issues. Synergistic interactions have been observed in a fresh-cut produce processing plant, where *E. coli* interacted with *Burkholderia caryophylli* and *Ralstonia insidiosa* to form mixed biofilms. Statement 2 is correct.



68. Consider the following statements in respect of probiotics :

1. Probiotics are made of both bacteria and yeast.

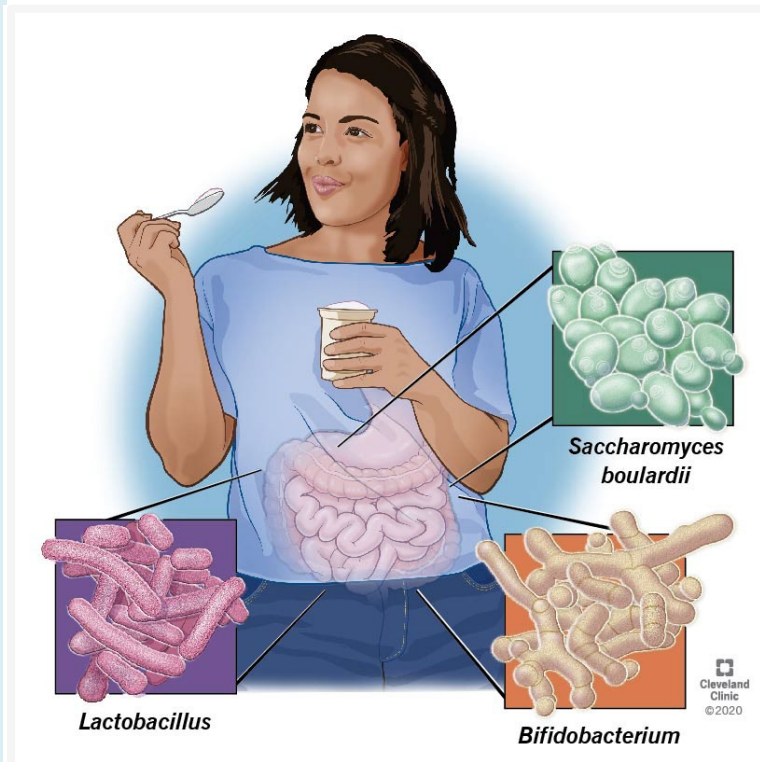
2. The organisms in probiotics are found in foods we ingest but they do not "naturally occur in our gut.
3. Probiotics help in the digestion of milk sugars.

Which of the statements given above is/are correct ?

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

Correct Option: (c)

Explanation:



Probiotics are made of good live bacteria and/or yeasts that naturally live in your body. You constantly have both good and bad bacteria in your body. When you get an infection, there's more bad bacteria, knocking your system out of balance. Good bacteria helps eliminate extra bad bacteria, returning the balance. Probiotic-supplements are a way to add good bacteria to your body.

Probiotics are made of both bacteria and yeast. Common probiotic bacteria can include lactobacillus and bifidobacterium. The most common yeast found in probiotics is saccharomyces boulardii.

What are probiotics?

Probiotics are a combination of live beneficial bacteria and/or yeasts that naturally live in your body. Bacteria is usually viewed in a negative light as something that makes you sick. However, you have two kinds of bacteria constantly in and on your body — good bacteria and bad bacteria.

Probiotics are made up of good bacteria that helps keep your body healthy and working well. This good bacteria helps you in many ways, including fighting off bad bacteria when you have too much of it, helping you feel better. Probiotics are part of a larger picture concerning bacteria and your body — your microbiome. Think of a microbiome as a diverse community of organisms, such as a forest, that work together to keep your body healthy.

This community is made up of things called microbes. You have trillions of microbes on and in your body. These microbes are a combination of:

- Bacteria.
- Fungi (including yeasts).
- Viruses.
- Protozoa.

Everyone's microbiome is unique. No two people have the same microbial cells — even twins are different.

For a microbe to be called a probiotic, it must have several characteristics.

These include being able to:

- Be isolated from a human.
- Survive in your intestine after ingestion (being eaten).
- Have a proven benefit to you.
- Be safely consumed.

Where do beneficial probiotics (microbes) live in my body?

Though the most common place linked to beneficial microbes is your gut (mostly include your:

- Gut.
- Mouth.
- Vagina.
- Urinary tract.
- Skin.
- Lungs.

How do probiotics work?

The main job of probiotics, or good bacteria, is to maintain a healthy balance in your body. Think of it as keeping your body in neutral. When you are sick, bad bacteria enters your body and increases in number. This knocks your body out of balance. Good bacteria works to fight off the bad bacteria and restore the balance within your body, making you feel better.

Good bacteria keeps you healthy by supporting your immune function and

controlling inflammation. Certain types of good bacteria can also:

- Help your body digest food.
- Keep bad bacteria from getting out of control and making you sick.
- Create vitamins.
- Help support the cells that line your gut to prevent bad bacteria that
- you may have consumed (through food or drinks) from entering your blood
- Breakdown and absorb medications.

This balancing act is naturally happening in your body all of the time. You don't actually need to take probiotic supplements to make it happen. Good bacteria is just a natural part of your body. Eating a well-balanced diet rich in fiber every day helps to keep the number of good bacteria at proper levels.

69. In the context of vaccines manufactured to prevent COVID-19 pandemic, consider the following statements:

1. The Serum Institute of India produced COVID-19 vaccine named Covishield using mRNA platform.
2. Sputnik V vaccine is manufactured using vector based platform.
3. COVAXIN is an inactivated pathogen based vaccine.

Which of the statements given above are correct?

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

Correct Option: (b)

Explanation:

1. **COVISHIELD** vaccine is based on the platform which uses a recombinant, replication-deficient chimpanzee adenovirus vector encoding the SARS-CoV-2 Spike (S) glycoprotein. Following administration, the genetic material of part of coronavirus is expressed which stimulates an immune response. Hence the statement is incorrect.
2. **Sputnik V** is the world's first registered vaccine based on a well-studied human adenovirus vector platform. It has been approved for use in 71 countries with a total population of 4 billion people. The vaccine is named after the first Soviet space satellite. The launch of Sputnik-1 in 1957 reinvigorated space research around the world, creating a so-called "Sputnik moment" for the global community. The

vaccine's efficacy is 97.6%, based on the analysis of data on the incidence of coronavirus among Russians vaccinated with both vaccine components between December 5, 2020 and March 31, 2021.

Statement 2 is correct.

Covaxin is an inactivated viral vaccine. This vaccine is developed with Whole-Virion Inactivated Vero Cell-derived technology. They contain inactivated viruses, which cannot infect a person but still can teach the immune system to prepare a defence mechanism against the active virus.

Statement 3 is correct.

70. If a major solar storm (solar-flare) reaches the Earth, which of the following are the possible effects on the Earth ?

1. GPS and navigation systems could fail.
2. Tsunamis could occur at equatorial regions.
3. Power grids could be damaged.
4. Intense auroras could occur over much of the Earth.
5. Forest fires could take place over much of the planet.
6. Orbits of the satellites could be disturbed.
7. Shortwave radio communication of the aircraft flying over polar regions could be interrupted.

Select the correct answer using the code given below:

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

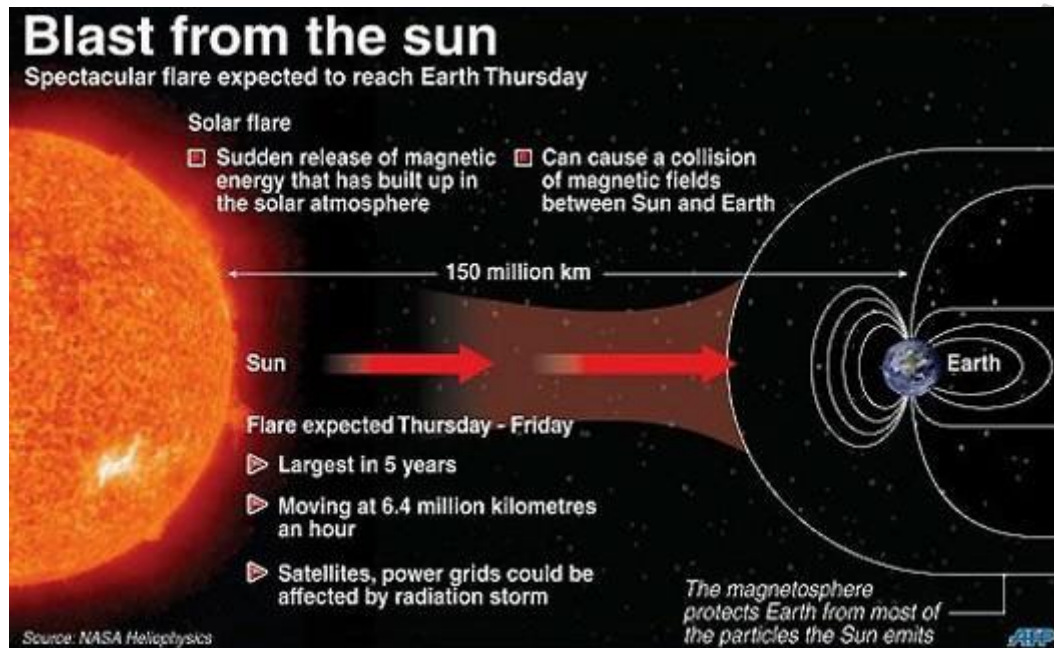
Correct Option: (c)

Explanation:

Impact of Solar Flares and CMEs on Earth

- **Space-dependent services:** Solar storms can hit operations of space-dependent services like global positioning systems (GPS), radio, and satellite communications.
- **Radio communication:** Geomagnetic storms interfere with high-frequency radio communications and GPS navigation systems.
- **Magnetosphere:** CMEs, with ejectiles loaded with matter travelling at millions of miles an hour, can potentially create disturbances in the magnetosphere, the protective shield surrounding the Earth.
- **Astronauts:** Astronauts on spacewalks face health risks from possible exposure to solar radiation outside the Earth's protective atmosphere.

Other: Aircraft flights, power grids, and space exploration programmes are vulnerable.



71. Among the following crops, which one is the most important anthropogenic source of both methane and nitrous oxide ?

- (a) Cotton
- (b) Rice
- (c) Sugarcane
- (d) Wheat

Correct Option: (b)

Explanation:

Methane and nitrous oxide are emitted from conventional and modified rice cultivation systems.

72. “System of Rice Intensification” of cultivation, in which alternate wetting and drying of rice fields is practised, results in :

1. Reduced seed requirement

2. Reduced methane production
3. Reduced electricity consumption

Select the correct answer using the code given below :

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

Correct Option: (d)

Explanation:

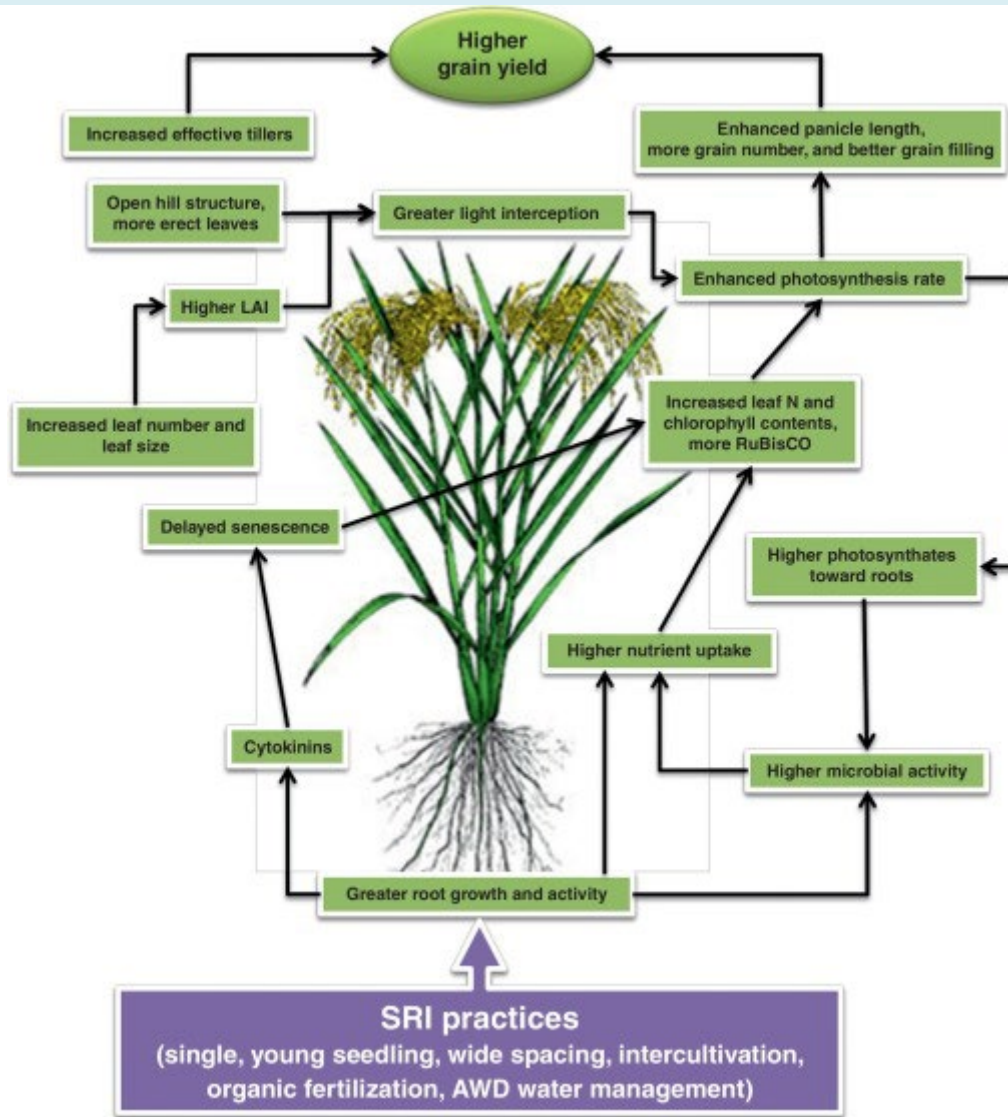
System of Rice Intensification (SRI) includes a method called Alternate Wetting and Drying (AWD) which is a form of controlled or intermittent irrigation of the rice crops. The benefits from the programme include reduction in methane emissions from traditional rice cultivation, and significant reduction in water consumption. The crop yields are maintained and not affected negatively, and the programme leads to the creation of community organisation and strengthening of networks through the formation of farmer groups. Typically, farmers use diesel to pump large amounts of water to flood their fields. With intermittent flooding, water pumps are run for shorter periods of time, reducing fuel consumption.

Benefits and Impacts of SRI

- **To increase paddy yields usually by 20-50% and sometimes 100% or more;**
- **To reduce required seeds for transplanting by 60-80%;**
- **To reduce use of chemical fertilizers and agrichemicals;**
- **To reduce irrigation water by 25-50%;**
- **To reduce production costs usually by 10-20%; and**

With increased output and reduced costs, farmers' net income is increased.





73. Which one of the following lakes of West Africa has become dry and turned into a desert ?

- (a) Lake Victoria
- (b) Lake Faguibine
- (c) Lake Oguta
- (d) Lake Volta

Correct Option: (b)

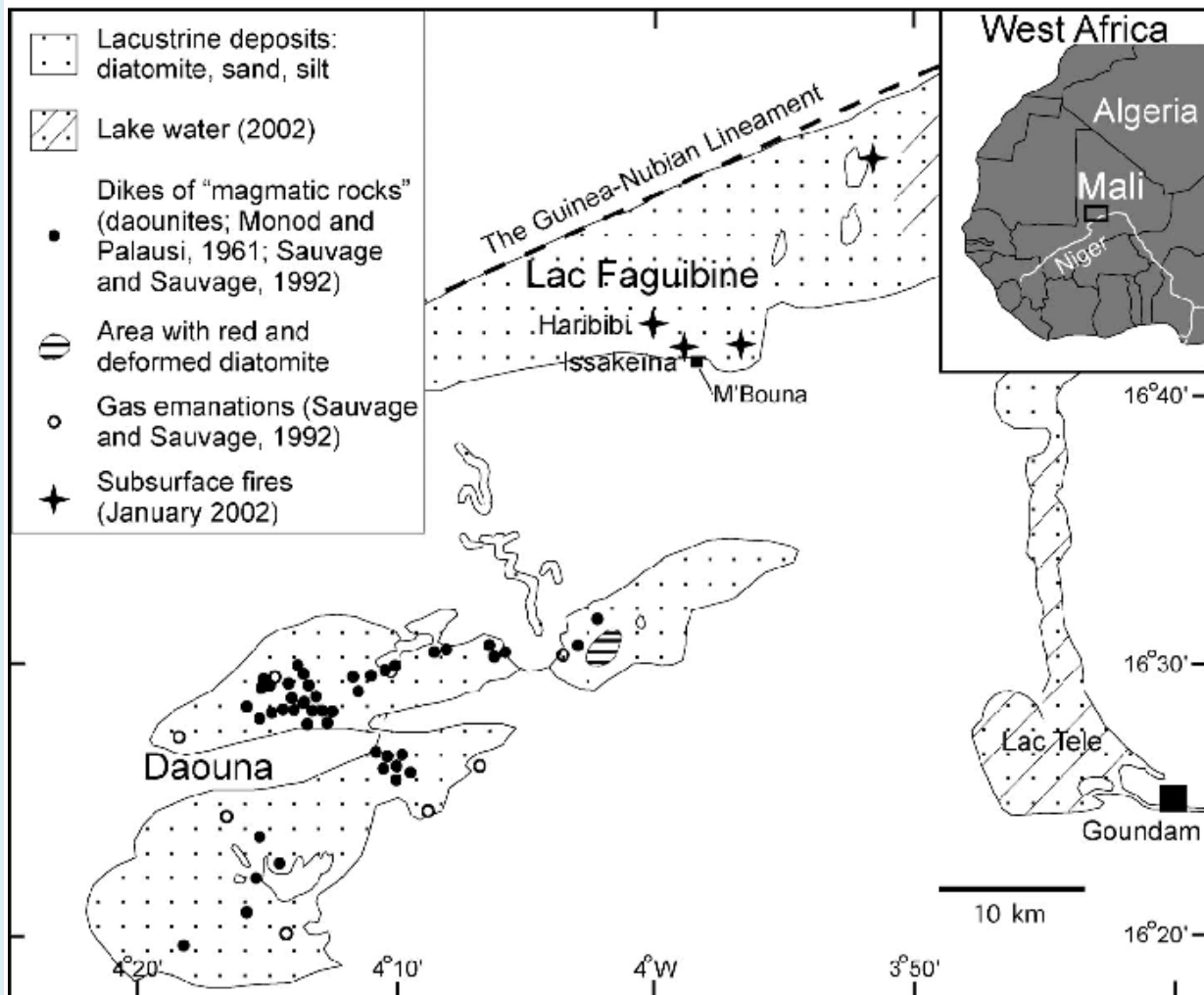
Explanation:

- One example of increasing aridity in Mali appears in Lake Faguibine. These false-color Landsat satellite images of the lake show how it changed over the decades.
- Lying at the end of a series of basins watered by the Niger River when it floods, Lake Faguibine has experienced widely fluctuating water

levels since the turn of the twentieth century but, at its fullest, has ranked among the largest lakes in West Africa.

- In 1974, this lake covered roughly 590 square kilometers (230 square miles). Starting in the late 1980s, a drop in precipitation steadily dried the lake. By the late 1990s, the traditional livelihoods of fishing, agriculture, and livestock herding became impractical.

Even though normal rainfall resumed after the year 2000, the lake remained nearly dry.



74. Gandikota canyon of South India was created by which one of the following rivers ?

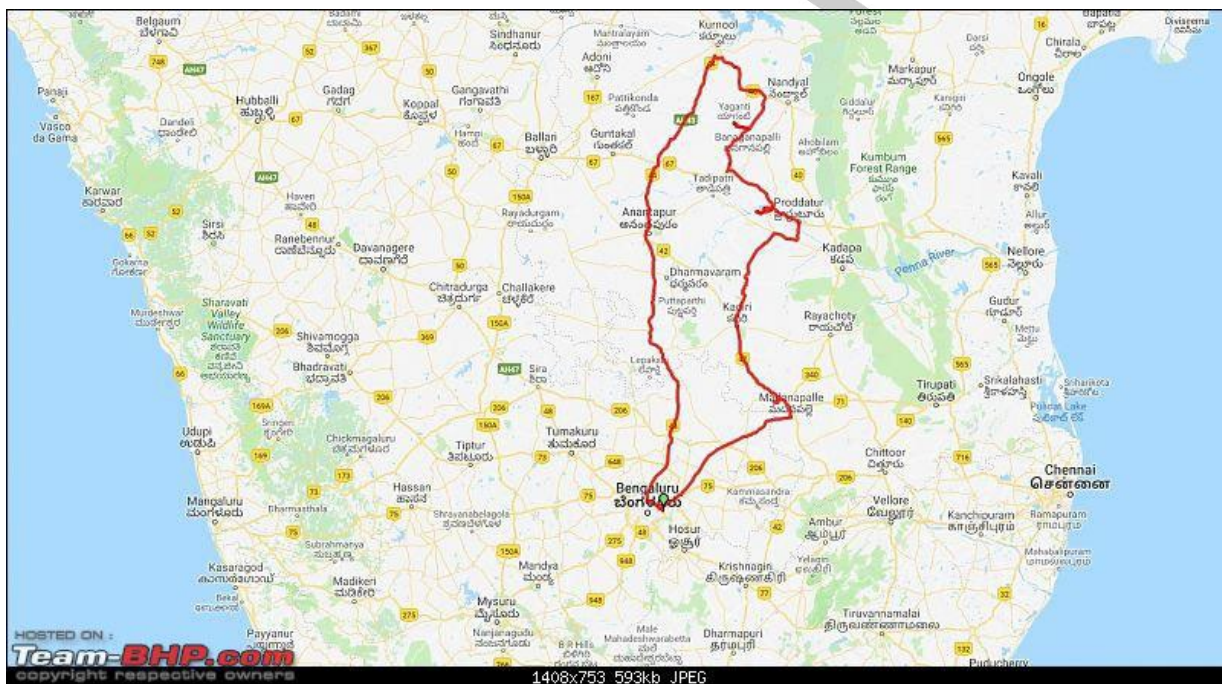
- (a) Cauvery
- (b) Manjira
- (c) Pennar
- (d) Tungabhadra

Correct Option: (c)

Explanation:

- **Penna (also known as Pinakini, Pennar, Penner, Penneru (Telugu), Pennai (Tamil)) is a river of southern India.**
- **India has always been a popular tourist destination for its historic forts, stunning palaces and dense jungles.**
- **Now, a lesser known gorge in the southern state of Andhra Pradesh is drawing visitors.**
- **The gorge is a stunning maze of jagged rocks layered in shades of red. The Penna river meanders through the canyon floor as it cuts through the Erramala hills.**
- **The area is now known as the Grand Canyon of India because of its resemblance to the famous US landmark.**

It's also home to two ancient temples and a 12th Century fort that sits atop the hills surrounding the gorge.



75. Consider the following pairs Peak Mountains

1. Namcha Barwa - Garhwal Himalaya
2. Nanda Devi – Kumaon Himalaya
3. Nokrek – Sikkim Himalaya

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

(a) 1 and 2

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

Correct Option: (b)

Explanation:

Namcha Barwa is in an isolated part of southeastern Tibet rarely visited by outsiders. It stands inside the Great Bend of the Yarlung Tsangpo River as the river enters its notable gorge across the Himalaya, emerging as the Siang and becoming the Brahmaputra. On other hand the Garhwal Himalayas are mountain ranges located in the Indian state of Uttarakhand

Kumaun Himalayas, west-central section of the Himalayas in northern India, extending 200 miles (320 km) from the Sutlej River east to the Kali River. The range, comprising part of the Siwalik Range in the south and part of the Great Himalayas in the north, lies largely within the state of Uttarakhand, northwest of Nepal. It rises to 25,646 feet (7,817 metres) at Nanda Devi, the range's highest peak.

The Nokrek Biosphere Reserve is located in the northeast of India on the Tura Range, which forms part of the Meghalaya Plateau (average altitude: 600 metres).

76. The term "Levant" often heard in the news roughly corresponds to which of the following regions ?

- (a) Region along the eastern Mediterranean shores
- (b) Region along North African shores stretching from Egypt to Morocco
- (c) Region along Persian Gulf and Horn of Africa
- (d) The entire coastal areas of Mediterranean Sea

Correct Option: (a)

Explanation:

Levant, the region along the eastern Mediterranean shores, roughly corresponding to modern-day Israel, Jordan, Lebanon, Syria, and certain adjacent areas.



77. Consider the following countries :

1. Azerbaijan
2. Kyrgyzstan
3. Tajikistan
4. Turkmenistan
5. Uzbekistan

Which of the above have borders with Afghanistan ?

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

Correct Option: (c)

Explanation:

Afghanistan is completely landlocked—the nearest coast lies along the Arabian Sea, about 300 miles (480 km) to the south—and, because of both its isolation and its volatile political history, it remains one of the most poorly surveyed areas of the world. It is bounded to the

- east and south by Pakistan
- to the west by Iran
- to the north by the Central Asian states of Turkmenistan, Uzbekistan, and Tajikistan.

It also has a short border with Xinjiang, China



78. With reference to India, consider the following statements :

1. Monazite is a source of rare earths.
2. Monazite contains thorium.
3. Monazite occurs naturally in the entire Indian coastal sands in India.
4. In India, Government bodies only can process or export monazite.

Which of the statements given above are correct?

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

Correct Option: (b)

Explanation:

The resources of xenotime, another rare-earth bearing mineral, are negligible in India. AMD has established about 2000 tonnes of xenotime-bearing heavy mineral concentrate containing 2% xenotime in the riverine heavy mineral placer deposits of Chhattisgarh and Jharkhand.

Monazite is a mineral mainly containing rare earths and thorium-a prescribed substance to be handled by the Department of Atomic Energy (DAE). Accordingly, Indian Rare Earths Ltd. (IREL) wholly owned by the Govt. of India, under the administrative control of the Dept. of Atomic Energy (DAE) utilises monazite mainly for production of rare earth compounds, and thorium, as needed in the Department of Atomic Energy.

79. In the northern hemisphere, the longest day of the year normally occurs in the:

- (a) First half of the month of June
- (b) Second half of the month of June
- (c) First half of the month of July
- (d) Second half of the month of July

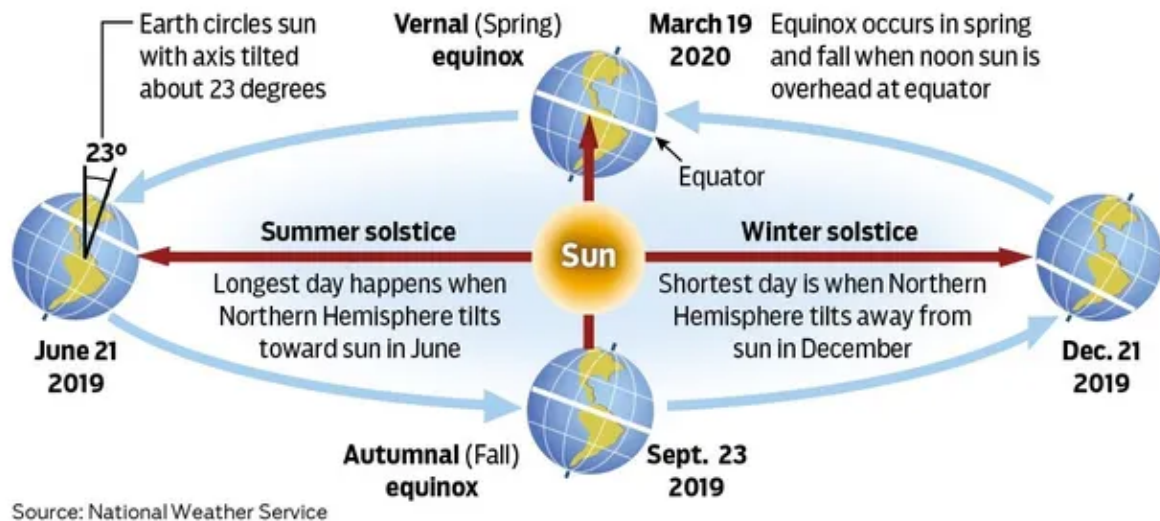
Correct Option: (b)

Explanation:



When a solstice or equinox occurs

A guide to the astronomical events in the coming year



● Explanation:

- summer solstice, the two moments during the year when the path of the Sun in the sky is farthest north in the Northern Hemisphere (June 20 or 21) or farthest south in the Southern Hemisphere (December 21 or 22).

At the summer solstice, the Sun travels the longest path through the sky, and that day therefore has the most daylight. When the summer solstice happens in the Northern Hemisphere, the North Pole is tilted about 23.4° ($23^\circ 27'$) toward the Sun. Because the Sun's rays are shifted northward from the Equator by the same amount, the vertical noon rays are directly overhead at the Tropic of Cancer ($23^\circ 27' \text{ N}$). Six months later, the South Pole is inclined about 23.4° toward the Sun. On this day of the summer solstice in the Southern Hemisphere, the Sun's vertical overhead rays progress to their southernmost position, the Tropic of Capricorn ($23^\circ 27' \text{ S}$).

80. Consider the following pairs :

Wetland / Lake Location

1. Hokera Wetland – Punjab
2. Renuka Wetland – Himachal Pradesh
3. Rudrasagar Lake — Tripura
4. Sasthamkotta Lake – Tamil Nadu

How many pairs given above are correctly matched ?

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

Correct Option: (b)

Explanation:

HOKERA WETLAND

RENUKA WETLAND

HOKERA WETLAND

HIMACHAL PRADESH

RUDRASAGAR LAKE

- TRIPURA

SASTHAMKOTTA LAKE

KERALA

81. Consider the following statements:

1. Pursuant to the report of H.N. Sanyal Committee, the Contempt of Courts Act, 1971 was passed.
2. The Constitution of India empowers the Supreme Court and the High Courts to punish for contempt of themselves.
3. The Constitution of India defines Civil Contempt and Criminal Contempt.
4. In India, the Parliament is vested with the powers to make laws on Contempt of Court.

Which of the statements given above is/are correct?

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

Correct Option: (b)

Explanation:

- **Statement 1 is correct: Contempt of Courts Act, 1971 was passed on the recommendation of H. N. Sanyal Committee.**
- **Statement 2 is correct: Constitution Of India empowers Supreme Court and High Courts to punish for contempt of themselves. High courts have the power to punish for contempt for lower courts under respective jurisdiction.**

- **Statement 3 is incorrect: Constitution of India does not define any type of contempt of court, neither Civil contempt nor criminal contempt.**

Statement 4 is correct: In India it is the Parliament who has the power to legislate over Contempt of Court.

82. With reference to India, consider the following statements:

1. Government law officers and legal firms are recognized as advocates, but corporate lawyers and patent attorneys are excluded from recognition as advocates.
2. Bar Councils have the power to lay down the rules relating to legal education and recognition of law colleges.

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

Correct Option: (b)

Explanation:

- **Statement 1 is incorrect: Government law officers, legal firms, corporate lawyers and patent attorneys all are recognised as advocates.**

Statement 2 is correct: Bar councils have the powers to lay down rules relating to legal education and recognition of law colleges.

83. Consider the following statements:

1. A bill amending the Constitution requires a prior recommendation of the President of India.
2. When a Constitution Amendment Bill is presented to the President of India, it is obligatory for the President of India to give his/her assent.
3. A Constitution Amendment Bill must be passed by both the Lok Sabha and Rajya Sabha by a special majority and there is no provision for joint sitting.

Which of the statements given above are correct?

- (a) 1 and 2 only

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

Correct Option: (b)

Explanation:

- **Statement 1 is incorrect:** No prior approval of the President is required for the Constitutional Amendment Act.
- **Statement 2 is correct:** It is obligatory for the President to give his assent, when a Constitutional Amendment Bill is presented before him. The President cannot exercise any veto power regarding the Constitutional Amendment Bill.

Statement 3 is correct: Constitutional Amendment Bill needs to be passed by both the houses separately by a special majority, and no joint sitting is allowed regarding Constitutional Amendment Bill.

84. Consider the following statements:

1. The Constitution of India classifies the ministers into four ranks viz. Cabinet Minister, Minister of State with Independent Charge, Minister of State and Deputy Minister.
2. The total number of ministers in the Union Government, including the Prime Minister, shall not exceed 15 percent of the total number of members in the Lok Sabha.

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

Correct Option: (b)

Explanation:

- **Statement 1 is incorrect:** Constitution of India does not define any categorisation of ministers.

Statement 2 correct: The total number of ministers including prime minister should not exceed 15% of the total membership of Lok Sabha.

85. Which of the following is/are the exclusive power(s) of Lok Sabha?

1. To ratify the declaration of Emergency
2. To pass a motion of no-confidence against the Council of Ministers
3. To impeach the President of India

Select the correct answer using the code given below:

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

Correct Option: (b)

Explanation:

- **Statement 2 is correct:** Article 75 of the Constitution says that the council of ministers shall be collectively responsible to the Lok Sabha. It means that the ministry stays in office so long as it enjoys confidence of the majority of the members of the Lok Sabha. In other words, the Lok Sabha can remove the ministry from office by passing a noconfidence motion. The motion needs the support of 50 members to be admitted. (Source: LakshmiKant)
 - **Statement 1 is incorrect:** If the President is satisfied that a grave emergency exists whereby the security of India or of any part of the territory thereof is threatened, whether by war or external aggression or armed rebellion, he may, by Proclamation, made a declaration to that effect in respect of the whole of India or of such part of the territory. Every Proclamation issued under this article shall be laid before each House of Parliament.
 - **Statement 3 is incorrect:** If Parliament. These charges should be signed by one-fourth members of the House (that framed the charges), and a 14 days' notice should be given to the President. After the impeachment resolution is passed by a majority of two-thirds of the total membership of that House, it is sent to the other House, which should investigate the charges. The President has the right to appear and to be represented at such investigation. If the other House also sustains the charges and passes the impeachment resolution by a majority of two-thirds of the total membership, then the President stands removed from his office from the date on which the resolution is so passed. (Source: LakshmiKant)
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86. With reference to anti-defection law in India, consider the following statements:

1. The law specifies that a nominated legislator cannot join any political party within six months of being appointed to the House.
2. The law does not provide any time-frame within which the presiding officer has to decide a defection case.

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

Correct Option: (b)

Explanation:

Statement 1 is incorrect: A nominated member of a House becomes disqualified for being a member of the House if he joins any political party after the expiry of six months from the date on which he takes his seat in the House. This means that he may join any political party within six months of taking his seat in the House without inviting this disqualification. (Source: LakshmiKant)

Statement 2 is correct: The law does not specify a time-period for the Presiding Officer to decide on a disqualification plea.

87. Consider the following statements:

1. Attorney General of India and Solicitor General of India are the only officers of the Government who are allowed to participate in the meetings of the Parliament of India.
2. According to the Constitution of India, the Attorney General of India submits his resignation when the Government which appointed him resigns.

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

Correct Option: (d)

Explanation:

- **Statement 1 is Incorrect:** Solicitor General do not participate in the meetings of Parliament. Article 88 in The Constitution Of India 1949. Rights of Ministers and Attorney General in respects Houses Every Minister and the Attorney General of India shall have the right to speak in, and otherwise to take part in the proceedings of either House, any joint sitting of the Houses, and any committee of Parliament of which he may be named a member, but shall not by virtue of this article be entitled to vote Officers of Parliament.
- **Attorney General:** The Attorney General has the right to speak and to take part in the proceedings of both the Houses of Parliament or their joint sitting and any committee of the Parliament of which he may be named a member, but without a right to vote. He enjoys all the privileges and immunities that are available to a member of Parliament.

Solicitor General: In addition to the AG, there are other law officers of the Government of India. They are the solicitor general of India and additional solicitor general of India. They assist the AG in the fulfilment of his official responsibilities. It should be noted here that only the office of the AG is created by the Constitution. In other words, Article 76 does not mention about the solicitor general and additional solicitor general.

88. With reference to the writs issued by the Courts in India, consider the following statements:

1. Mandamus will not lie against a private organization unless it is entrusted with a public duty.
2. Mandamus will not lie against a Company even though it may be a Government Company.
3. Any public minded person can be a petitioner to move the Court to obtain the writ of Quo Warranto.

Which of the statements given above are correct?

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

Correct Option: (c)

Explanation:

Mandamus

- It literally means 'we command'. It is a command issued by the court to a public official asking him to perform his official duties that he has failed or refused to perform. It can also be issued against any public body, a corporation, an inferior court, a tribunal or government for the same purpose. The writ of mandamus cannot be issued (a) against a private individual or body; (b) to enforce departmental instruction that does not possess statutory force; (c) when the duty is discretionary and not mandatory; (d) to enforce a contractual obligation; (e) against the president of India or the state governors; and (f) against the chief justice of a high court acting in judicial capacity.

Quo-Warranto

Quo-Warranto In the literal sense, it means 'by what authority or warrant'. It is issued by the court to enquire into the legality of claim of a person to a public office. Hence, it prevents illegal usurpation of public office by a person. The writ can be issued only in case of a substantive public office of a permanent character created by a statute or by the Constitution. It cannot be issued in cases of ministerial office or private office. Unlike the other four writs, this can be sought by any interested person and not necessarily by the aggrieved person.

89. With reference to Ayushman Bharat Digital Mission, consider the following statements:

1. Private and public hospitals must adopt it.
2. As it aims to achieve universal health coverage, every citizen of India should be part of it ultimately.
3. It has seamless portability across the country.

Which of the statements given above is/are correct?

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

Correct Option: (b)

Explanation:

Participation in ABDM is voluntary including for citizens. Participation of a healthcare facility or an institution is also voluntary and shall be taken by the respective management (government or private management). However,

once the management decides to register the respective healthcare facility/institution in ABDM, it is essential for all the healthcare professionals serving the said facility/institution to register in Healthcare Professionals Registry so that the institution can become fully integrated with the National Digital Health Ecosystem (NDHE). It is possible for a healthcare professional to be a part of two facilities/hospitals, one of which may be a part of NDHE and the other one may not be a part NDHE. In such a case, the healthcare professional will be required to use their Healthcare Professional ID (HPID) only in the institution which is participating in the ecosystem.

90. With reference to Deputy Speaker of Lok Sabha, consider the following statements:

1. As per the Rules of Procedure and Conduct of Business in Lok Sabha, the election of Deputy Speaker shall be held on such date as the Speaker may fix.
2. There is a mandatory provision that the election of a candidate as Deputy Speaker of Lok Sabha shall be from either the principal opposition party or the ruling party.
3. The Deputy Speaker has the same power as of the Speaker when presiding over the sitting of the House and no appeal lies against his rulings.
4. The well established parliamentary practice regarding the appointment of Deputy Speaker is that the motion is moved by the Speaker and duly seconded by the Prime Minister.

Which of the statements given above are correct?

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

Correct Option: (a)

Explanation:

Deputy Speaker of Lok Sabha

- Like the Speaker, the Deputy Speaker is also elected by the Lok Sabha itself from amongst its members. He is elected after the election of the Speaker has taken place. The date of election of the Deputy Speaker is fixed by the Speaker. Whenever the office of the Deputy Speaker falls vacant, the Lok Sabha elects another member to fill the vacancy.
- Upto the 10th Lok Sabha, both the Speaker and the Deputy Speaker were usually from the ruling party. Since the 11th Lok Sabha, there has been a consensus that the Speaker comes from the ruling party (or ruling alliance) and the post of Deputy Speaker goes to the main

opposition party.

- The Deputy Speaker performs the duties of the Speaker's office when it is vacant. He also acts as the Speaker when the latter is absent from the sitting of the House. In both the cases, he assumes all the powers of the Speaker. He also presides over the joint sitting of both the Houses of Parliament, in case the Speaker is absent from such a sitting.

At any time before noon on the day preceding the date so fixed, any member may give notice in writing, addressed to the Secretary-General, of a motion that another member be chosen as the Deputy Speaker of the House and the notice shall be seconded by a third member and shall be accompanied by a statement by the member whose name is proposed in the notice that the member proposed is willing to serve as Deputy Speaker

91. "Rapid Financing Instrument" and "Rapid Credit Facility" are related to the provisions of lending by which one of the following?

- (a) Asian Development Bank
- (b) International Monetary Fund
- (c) United Nations Environment Programme Finance Initiative
- (d) World Bank

Correct Option: (b)

Explanation:

- The Rapid Financing Instrument (RFI) provides rapid financial assistance, which is available to all member countries facing an urgent balance of payments need. The RFI was created as part of a broader reform to make the IMF's financial support more flexible to address the diverse needs of member countries. The RFI replaced the IMF's previous emergency assistance policy and can be used in a wide range of circumstances.

Rapid Credit Facility (RCF)

The Rapid Credit Facility (RCF) provides rapid concessional financial assistance to low-income countries (LICs) facing an urgent balance of payments (BoP) need with no ex post conditionality where a full-fledged economic program is neither necessary nor feasible. The RCF was created under the Poverty Reduction and Growth Trust (PRGT) as part of a broader reform to make the Fund's financial support more flexible and better tailored to the diverse needs of LICs, including in times of crisis. There are three windows under RCF: (i) a "regular window" for urgent BoP needs caused by wide range of sources including domestic instability, emergencies and fragility; (ii) an "exogenous shock window" for urgent BoP

needs caused by a sudden, exogenous shock; and (iii) a “large natural disaster window” for urgent BoP needs arising from natural disasters where damage is assessed to be equivalent to or exceed 20 percent of the member’s GDP. Access under the RCF is subject to annual and cumulative limits, with higher access limits applying for the large natural disaster window. For higher income countries that are non-PRGT eligible, a similar Rapid Financing Instrument (RFI) is available.

92. With reference to the Indian economy, consider the following statements:

1. An increase in Nominal Effective Exchange Rate (NEER) indicates the appreciation of rupee.
2. An increase in the Real Effective Exchange Rate (REER) indicates an improvement in trade competitiveness.
3. An increasing trend in domestic inflation relative to inflation in other countries is likely to cause an increasing divergence between NEER and REER.

Which of the above statements are correct?

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

Correct Option: (c)

Explanation:

- **Statement 1 is correct:** NEER is a measure of value of a currency against a weighted average of several foreign currency. An increase in NEER indicates appreciation of rupee.
- **Statement 2 is incorrect:** An increase in REER implies that exports become more expensive and imports become cheaper; therefore, an increase indicates a loss in trade competitiveness.

Statement 3 is correct: The NEER is the weighted geometric average of the bilateral nominal exchange rates of the home currency in terms of foreign currencies. The REER is the weighted average of NEER adjusted by the ratio of domestic price to foreign prices. Increasing trend in domestic inflation relative to inflation in other countries creates a divergence in NEER and REER.

93. With reference to the Indian economy, consider the following statements:

1. If the inflation is too high, Reserve Bank of India (RBI) is likely to buy government securities.
2. If the rupee is rapidly depreciating, RBI is likely to sell dollars in the market.
3. If interest rates in the USA or European Union were to fall, that is likely to induce RBI to buy dollars.

Which of the statements given above are correct?

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

Correct Option: (b)

Explanation:

- **Statement 1 is incorrect:** If the inflation is high RBI tries to reduce the liquidity from the market, by selling Government securities to the public via open market operation.
- **Statement 2 is correct:** Rupee depreciation means, fall in value of rupee with respect to dollar. In free floating exchange rate regime, depreciation takes place when the demand for dollar is more than the supply. thus, RBI is likely to sell dollars in the economy to increase the supply of the dollar.

Statement 3 is correct: If the interest rate in US and EU falls, there will be an inflow of dollars in the Indian market, leading to appreciation of the rupee. To reduce the supply of dollar in the economy, RBI will like to buy the dollars from the market.

94. With reference to the “G20 Common Framework”, consider the following statements:

1. It is an initiative endorsed by the G20 together with the Paris Club.
2. It is an initiative to support Low Income Countries with unsustainable debt.

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

Correct Option: (c)

Explanation:

- **Statement 1 is correct: Initiative endorsed by G20 together with Paris Club.**

Statement 2 is correct: It is an initiative to support low income countries with unsustainable debt.

95. With reference to the India economy, what are the advantages of “Inflation-Indexed Bonds (IIBs)”?

1. Government can reduce the coupon rates on its borrowing by way of IIBs.
2. IIGs provide protection to the investors from uncertainty regarding inflation.
3. The interest received as well as capital gains on IIBs are not taxable.

Which of the statements given above are correct?

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

Correct Option: (a)

Explanation:

- **Statement 1 is correct:**

Statement 2 is correct: Inflation indexed bonds provides protection to investors from uncertainty regarding inflation.

96. With reference to foreign-owned e-commerce firms operating in India, which of the following statements is/are correct?

1. They can sell their own goods in addition to offering their platforms as market-places.
2. The degree to which they can own big sellers on their platforms is limited.

Select the correct answer using the code given below:

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

Correct Option: (c)

Explanation:

- **Statement 1 is correct: E-commerce firms can sell their own products in addition to offering their platforms as market place.**

Statement 2 is correct: Big sellers have the limit of 20% for sale on e-commerce platform

97. Which of the following activities constitute real sector in the economy?

1. Farmers harvesting their crops
2. Textile mills converting raw cotton into fabrics
3. A commercial bank lending money to a trading company
4. A corporate body issuing Rupee Denominated Bonds overseas

Select the correct answer using the code given below:

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

Correct Option: (a)

Explanation:

The real sector of the economy deals with the production side, while the nominal economy deals with the financial side. Financial activities majorly support real(production) activity, but does not contribute itself too much except the factor income it generates.

98. Which one of the following situations best reflects “Indirect Transfers” often talked about in media recently with reference to India?

- (a) An Indian company investing in a foreign enterprise and paying taxes to the foreign country on the profits arising out of its investment
- (b) A foreign company investing in India and paying taxes to the country of its base on the profits arising out of its investment
- (c) An Indian company purchases tangible assets in a foreign country and sells such assets after their value increases and transfers the proceeds to India

(d) A foreign company transfers shares and such shares derive their substantial value from assets located in India

Correct Option: (d)

Explanation:

Indirect transfers refer to situations where when foreign entities own shares or assets in India, the shares of such foreign entities are transferred instead of a direct transfer of the underlying assets in India.

99. With reference to the expenditure made by an organization or a company, which of the following statements is/are correct?

1. Acquiring new technology is capital expenditure.
2. Debt financing is considered capital expenditure, while equity financing is considered revenue expenditure.

Select the correct answer using the code given below:

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

Correct Option: (a)

Explanation:

- **Statement 1 is correct: Acquiring new technology is considered as capital expenditure as it will generate profit in the future time and helps in creation of new assets.**

Statement 2 is incorrect: Debt Financing and equity financing are considered under capital expenditure.

100. With reference to the Indian economy, consider the following statements:

1. A share of the household financial savings goes towards government borrowings.
2. Dated securities issued at market-related rates in auctions form a large component of internal debt.

Which of the above statements is/are correct?

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

Correct Option: (c)

Explanation:

- **Statement 1 is correct:** A share of household financial savings goes to the government borrowings, as part of public accounts of India. It mainly consists of provident fund.

Statement 2 is correct: Dated securities means regular government bonds, whereas T-bills are considered separately. Dated securities issued at market related rates comprise a large share of internal debt.

