

10 PM Current Affairs Quiz Compilation

3rd to 8th January, 2022

*THIS IS A MONTHLY DOCUMENT CONTAINING ALL MCQS ASKED IN 10 PM
CURRENT AFFAIRS QUIZ BY FORUMIAS.*

SCIENCE AND TECHNOLOGY

Q.1) Which of the following technology areas are included under Cyber Physical Systems?

1. Internet of Things (IoT)
2. Big Data
3. Artificial Intelligence (AI)

Select the correct answer from the codes given below:

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

Correct Answer: d

Explanation

- Cyber Physical Systems (CPS) are a new class of engineered systems that integrate computation and physical processes in a dynamic environment.
- It encompasses the technology areas of Cybernetics, the Internet of Things (IoT), Big Data, Artificial Intelligence (AI) among others.

Source: [Article](#)

Q.2) With reference to IHU Variant, consider the following statements:

1. The variant was reported to have 46 mutations, which is more than Omicron.
2. The WHO has called this variant as a variant of interest.

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 Answer: A

Explanation

Statement 1 is correct.

Statement 2 is incorrect: Till now, only France has reported a dozen cases. No other country has detected any new cases of the new variant. That is why, WHO has not yet called this IHU variant a variant of interest, a variant of concern or even a variant under investigation.

Source: [IHU' variant of Covid-19: few cases, limited spread](#)

Q.3) With reference to polio, consider the following statements:

1. It attacks the central nervous system through the blood stream.
2. Oral Polio Vaccine is produced from wild-type poliovirus strains of each serotype that have been killed with formalin.

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

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Correct Answer: A

Explanation

- **Statement 1 is correct:** Polio is transmitted from one person to another by oral contact with secretions or faecal material from an infected person. It attacks the central nervous system through the blood stream and damage the cells and paralyse the victim
- **Statement 2 is incorrect:** Oral Polio Vaccine consists of a mixture of the three live attenuated poliovirus serotypes (Sabin types 1, 2 and 3), selected for their lower neurovirulence and reduced transmissibility.

Source: [Article](#)

Q.4) With reference to GEC-Intra State Transmission System (InSTS) project, consider the following statements:

1. It aims at synchronizing electricity produced from renewable sources such as solar and wind with conventional power stations in the grid.
2. The project is being implemented across all states in India.

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 Answer: A

Explanation

- **Statement 1 is correct**
- **Statement 2 is incorrect:** Project is being implemented across renewable-rich states.

Source: [Article](#)

Q.5) With reference to The National Institute of Ocean Technology (NIOT), consider the following statements:

1. It is as an autonomous society under the Ministry of Science and Technology.
2. Its aim is to develop reliable indigenous technologies for harvesting of non-living and living resources in the Indian Exclusive Economic Zone (EEZ).

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 Answer: b

Explanation

- **Statement 1 is incorrect:** NIOT is under Min of Earth Sciences.
- **Statement 2 is correct:** The aim of NIOT is to develop reliable indigenous technologies to solve various engineering problems associated with harvesting of non-living and living resources in the Indian Exclusive Economic Zone (EEZ) which is about two-thirds of the land area of India.

Source: [Article](#)

Q.6) Which of the following are the application areas for drones?

1. Anti-poaching actions
2. Precision crop monitoring
3. Anti-locust work

Select the correct answer from the codes given below:

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

Correct Answer: D

Explanation

- All domains are the application areas for drones

Source: [Article](#)

Q.7) With reference to UJALA Scheme, consider the following statements:

1. It has become the world's largest zero subsidy domestic lighting programme.
2. Solar Energy Corporation of India (SECI) is the implementing agency for the scheme.

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 Answer: A

Explanation

- **Statement 1 is correct:** The programme has evolved to be the world's largest zero subsidy domestic lighting programme that addresses concerns like high electrification cost and high emissions that result from inefficient lighting.
- **Statement 2 is incorrect:** Energy Efficiency Services Limited (EESL), a government company under the administrative control of Ministry of Power has been designated as the implementing agency for this programme.

Source: [Article](#)

Q.8) With reference to GitHub, consider the following statements:

1. It is the world's largest open-source developer community platform.
2. The platform is based on the Linux software.

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 Answer: A

Explanation

Statement 1 is correct.

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Statement 2 is incorrect: The platform uses the software Git, which was created in 2005 by Linus Torvalds, to track changes in a set of files and for coordination in software development.

Torvalds is the developer of the open-source operating system Linux.

Source: [Explained: What is GitHub, at the centre of online sexual harassment probe?](#)

Q.9) With reference to **CSIR-National Physical Laboratory (NPL)**, consider the following statements:

1. It calibrates the national standards of weights and measures.
2. Jawaharlal Nehru laid the foundation stone of NPL.

Which of the statements given above is/are incorrect?

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

Correct Answer: d

Explanation

Both statements are correct.

Recently, Union Minister Dr Jitendra Singh launches the Platinum Jubilee Celebrations of CSIR-National Physical Laboratory (NPL) New Delhi.

Source: [PIB](#)

Q.10) Shukrayaan Mission was recently seen in news. It is related to which of the following?

- a) It is a newly proposed mission to study Sun.
- b) It is a new project of DRDO to create all weather dress for Army.
- c) It is a newly proposed mission to study Venus.
- d) It is a joint project of ISRO and NASA to study Saturn.

Correct Answer: C

Explanation

Shukrayaan-1 is a proposed mission of Indian Space Research Organisation (ISRO) to study the surface and atmosphere of Venus.

Source: [ISRO gearing up for multiple space missions in 2022](#)

Q.11) With reference to Carbon Enhanced Metal-Poor (CEMP) stars, consider the following statements:

1. They are primarily characterized by diverse heavy elements and abundance patterns.
2. Their formation was from the ejected material of the first stars that formed after the Big Bang.
3. At the evolutionary stages, these Stars cannot produce elements heavier than iron.

Which of the statements given above is/are correct?

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

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Correct Answer: d

Explanation

All statements are correct.

- CEMP Stars are primarily characterized by **diverse heavy elements** and **abundance patterns**. They were formed from the **ejected material of the first stars** that formed after the Big Bang.
- These stars are primarily classified into four groups, based on which groups of heavy elements are more abundant. These are mostly **dwarf stars, subgiant stars** or **giant stars**.
- At the evolutionary stages, these Stars cannot produce elements heavier than iron. However, the surface chemical composition of these stars exhibit abundances of heavy elements which are about 100 to 1000 times higher than that of the Sun.

Source: [Article](#)

Q.12) With reference to **single board computers (SBC)**, consider the following statements:

1. It is built on a single circuit board, which houses a microprocessor, memory unit, input/output channels, and other features required for a functional computer.
2. So far, no such SBC has been built in the world.

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 Answer: A

Explanation

Statement 1 is correct.

Statement 2 is incorrect: Recently, a pair of computers about the size of a set top box has been sent to International Space Station (ISS).

Source: [The Hindu](#)

Q.13) With reference to **Corbevax**, consider the following statements:

1. It is India's first indigenously developed Receptor Binding Domain (RBD) protein subunit vaccine.
2. The vaccine uses whole virus to trigger an immune response.

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 Answer: A

Explanation

Statement 1 is correct.

Statement 2 is incorrect: It is a protein subunit vaccine, which means that instead of the whole virus, it uses fragments of it to trigger an immune response.

Source: [Explained: Two new vaccines, an oral pill against Covid-19, and how they work](#)

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Q.14) What are the advantages of Genetically Modified crops?

1. Crop Protection.
2. Increase yield and income.
3. Increase species diversity.
4. Food Security.

Select the correct answer using the code given below:

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

Correct Answer D

Explanation

Statements 1, 2 and 4 are correct.

Crop Protection: The initial objective for developing GM plants was to improve crop protection. GM crops have improved resistance to diseases, pest, insects and herbicides. They also have improved tolerance to cold/heat, drought and salinity.

Food security: Given the increased growth of global population and increased urbanisation, GM crops offer one of the promising solutions to meet the world's food security needs.

GM crops reduce species diversity. For example, Insect-resistant plants might harm insects that are not their intended target and thus result in destruction of that particular species.

Source: [Draft rules for GM Foods: FSSAI draft norms on GM food unacceptable: Activists](#)

Q.15) With reference to solar cells, consider the following statements:

1. Silicon-based inorganic solar cells require high-temperature processing.
2. Perovskite-based photovoltaic devices are unstable towards humidity and Oxygen which restricts their commercialization.

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 Answer: C

Explanation

Both statements are correct.

- Currently, silicon-based inorganic solar cells are a major player in the market. However, this technology requires high-temperature processing that results in the high price of solar panels. Further, the recycling of solar panels is perilous and complicated.
- The perovskite-based devices also called photovoltaic devices are considered as an alternative. These devices are affordable, easy to manufacture, eco-friendly and can be recycled easily. However, perovskite materials are unstable towards humidity and oxygen, which restricts their commercialization.

Source: [Article](#)

Q.17) With reference to Protein subunit vaccines, consider the following statements:

1. These vaccines are made by isolating a piece of the actual virus.
2. They elicit a stronger T-cell response compared to mRNA vaccines.

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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 Answer: A

Explanation

- **Statement 1 is correct:** Protein subunit vaccines are made by isolating a piece of the actual virus. As fragments are used, there is no danger that these will multiply within the body. These pieces are expected to trigger an immune response that will hopefully prevent future infection
- **Statement 2 is incorrect:** These vaccines don't infect the cells (like inactivated DNA or mRNA vaccines) and therefore doesn't elicit the long-lasting immunity conferred by cells (or the T-cell response).

Source: [Article](#)

SCHEMES ANS PROGRAMS

Q.1) With reference to National Supercomputing Mission (NSM), consider the following statements:

1. Its aim is to connect research and academic institutions to a Supercomputing grid all over the country.
2. Param Shakti was the first supercomputer assembled indigenously in India.

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 Answer: A

Explanation

- **Statement 1 is correct**
- **Statement 2 is incorrect:** Param Shivay was the first supercomputer assembled indigenously, installed in IIT(BHU).

Source: [Article](#)

Q.2) With reference to National Film Development Corporation of India(NFDC), consider the following statements:

1. It functions under the Ministry of Information and Broadcasting, Government of India.
2. The NFDC was set up based on the recommendations of Dr Shivaram Karanth Committee.

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 Answer: C

Explanation

Both statements are correct.

Source: [Merging film and media units – Explained, pointwise](#)

Q.3) With reference to SAAR program, consider the following statements:

1. It is a joint initiative of Ministry of Housing and Urban Affairs and NITI Aayog.
2. A compendium of certain landmark urban projects in India would be prepared under the program.

Which of the statements given above is/are incorrect?

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

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Correct Answer: A

Explanation

- **Statement 1 is incorrect:** It is a joint initiative of MoHUA, National Institute of Urban Affairs (NIUA) and leading Indian academic institutions of the country
- **Statement 2 is correct:** The first activity envisaged under SAAR is to prepare a compendium of 75 landmark urban projects in India under the Smart City Mission.

Source: [Article](#)

Q.4) Shekatkar Committee sometimes in news is associated with?

- a) Rebalance defence expenditure of the armed forces
- b) Review corporate structure for Indian Private Sector Banks
- c) Preventing stubble burning in North India
- d) Formulation of food policy

Correct Answer: a

Explanation

The Shekatkar Committee was formed in 2015 by the then Defence Minister Manohar Parrikar. The Committee was chaired by Lt General D B Shekatkar (Retd.).

- The mandate of the Committee was to suggest measures to enhance combat capability and rebalance defence expenditure of the armed forces.

Source: [Article](#)

Q.5) Major General SR Sinho Committee was sometime seen in news. The committee is related to which of the following?

- a) To increase the Indigenization of Defence procurement.
- b) To ensure protection of Himalayan ranges.
- c) To provide reservations to Economically Weaker Sections.
- d) To implement police reforms.

Correct Answer: C

Explanation

EWS reservation was granted based on the recommendations of a commission headed by Major General (retd) SR Sinho. The Commission for Economically Backward Classes was constituted in 2005 and submitted its report in July 2010. Based on this, the Cabinet in January 2019 decided to amend the Constitution (103rd Amendment) to provide reservation to EWS.

Source: [Economically Weaker Sections \(EWS\) in India – Explained, pointwise](#)

Q.6) With reference to Mahila Kisan Sashaktikaran Pariyojana(MKSP), consider the following statements:

1. The primary objective of the scheme is to empower women in agriculture by making systematic investments to enhance their participation and productivity.
2. The Department of Rural Development, Ministry of Rural Development is implementing the scheme.

Which of the statements given above is/are correct?

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

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d) Neither 1 nor 2

Correct Answer:C

Explanation

Both the statements are correct.

Source: [\[Kurukshetra December Summary\] Rural Women: Key to New India's Agrarian Revolution – Explained, pointwise](#)

Q.7) With reference to **National Educational Alliance for Technology (NEAT)**, consider the following statements:

1. It is 100% government of India initiative.
2. The initiative provides for the use of best-developed technological solutions in the education sector to enhance the employability of the youth.

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 Answer: B

Explanation

Statement 1 is incorrect: NEAT is a Public-Private Partnership model between the Government (through its implementing agency AICTE) and the Education Technology companies of India.

Statement 2 is correct.

Source: [Union Education Minister Launches NEAT 3.0 And AICTE Prescribed Technical Books](#)

Q.8) With reference to **Financial Stability Report (FSR)**, consider the following statements:

1. The report explains the condition of financial stability in the country, and it is prepared after taking into account the contributions from all financial sector regulators.
2. It is an annual report prepared by SEBI.

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 Answer: A

Explanation

Statement 1 is correct.

Statement 2 is incorrect: It is a biannual report prepared by Sub-Committee of the Financial Stability and Development Council (FSDC – headed by the Governor of RBI).

Source: [Financial Stability Report \(FSR\) – Explained, pointwise](#)

Q.9) With reference to **Padhe Bharat campaign**, consider the following statements:

1. It will focus on children from Balvatika to grade 8.
2. The campaign will stress on the Indian languages including mother tongue, local and regional languages.

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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 Answer: c

Explanation

Both statements are correct.

- Padhe Bharat **is** a 100-day reading campaign starting from January 1, 2022 to April 10, 2022.
- **Aim:** To improve the learning levels of students as it develops creativity, critical thinking, vocabulary and the ability to express both verbally and in writing. It also helps children to relate to their surroundings and real-life situations.
- The campaign will focus on **children studying in Balvatika to Grade 8**. It expects the participation of all stakeholders at the national and state level including children, teachers, parents, community, educational administrators among others.
- Under the campaign, one activity per week per group will be taken up with the focus on making reading enjoyable and building a lifelong association with the joy of reading.
- The campaign will also **focus on Indian languages, including mother tongue/local/regional languages.**

Source: [Article](#)

Q.10) With reference to **Multi Agency Centre**, consider the following statements:

1. It is platform for a coordinated approach of all financial regulators.
2. It is an initiative of Intelligence Bureau.

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 Answer: B

Explanation

Statement 1 is incorrect: It is the nodal agency for the exchange of intelligence collected by various agencies and police forces across the country.

Statement 2 is correct.

Source: [Multi-Agency Centre\(MAC\): States told to share intel on common grid](#)

Q.11) Consider the following pairs.

Projects - Operational Area

1. Project Vijayak - Umlingla Pass
2. Project DANTAK - Bhutan
3. Project Beacon - Zoji La pass

Select the correct answer using the code given below:

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

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

Correct Answer: B

Explanation

Projects - Operational Area

1. Project Himank - Umlingla Pass
2. Project DANTAK - Bhutan
3. Project Beacon - Zoji La pass

Source: [Project Beacon and Project Vijayak: Border Roads Organisation breaks record at ZojiLa battling extreme weather conditions](#)

Q.12) Nasha Mukht Bharat Abhiyan was sometimes seen in news. The Abhiyan is related to which of the following?

- a) It is a campaign to make vulnerable districts to achieve ODF status and help them to maintain that.
- b) It is a campaign to promote ecofriendly practices in urban areas.
- c) It is launched in most vulnerable districts in terms of usage of drugs and aims to make India Drugs-Free.
- d) It is a campaign to promote reading habits among school children.

Correct Answer: C

Explanation

'Nasha Mukht Bharat Abhiyaan' or a 'Drugs-Free India Campaign' was launched in 2020 by the Ministry of Social Justice and Empowerment. The campaign was launched across 272 districts of the country found to be most vulnerable in terms of usage of drugs in the country.

The focal points of the Campaign are preventive, mass education and sensitization, capacity building of service providers, positive partnership with educational institutions, and augmentation of treatment, rehabilitation and counselling facilities.

Source: [Drugs-Free India Campaign and SMILE scheme: New scheme to support the marginalised](#)

INTERNATIONAL RELATIONS - REPORTS, RANKINGS & INDEX - INDEX

Q.1) Gender Development Index (GDI) is published by which of the following organizations?

- a) WB
- b) UNDP
- c) IMF
- d) WEF

Correct Answer: B

Explanation

- The GDI measures gender gaps in human development achievements by accounting for disparities between women and men in three basic dimensions of human development—health, knowledge and living standards using the same component indicators as in the HDI.

Source: [Article](#)

Q.2) With reference to **Sea Dragon 22 Exercise, consider the following:**

1. It is a multi-lateral anti-submarine warfare exercise in the Pacific Ocean, hosted by the USA.
2. The exercise includes the navies of India, Australia, Canada, Japan and South Korea.

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 Answer: C

Explanation

Both statements are correct.

Source: [Indian Express](#)

Q.3) World Press Freedom Index is released by?

- a) Reporters without borders
- b) Pacific Research Institute
- c) International Federation of Journalists
- d) Reporters Committee for the Freedom of Press

Correct Answer: a

Explanation

- **World Press Freedom Index** is released by Reporters Without Borders.

Source: [Article](#)

Q.4) With reference to **Nuclear Non-Proliferation Treaty(NPT), consider the following statements:**

1. It establishes a safeguards system under the responsibility of the International Atomic Energy Agency(IAEA).

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2. India and Israel are the only non-signatories of the treaty.

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 Answer: A

Explanation

Statement 1 is correct.

Statement 2 is incorrect: India, Israel, Pakistan, South Sudan have not joined the treaty. North Korea signed but later withdraw from it.

Source: [Non-Proliferation: World powers vow to stop spread of nuclear weapons](#)

Q.5) With reference to categorisation of countries on the basis of per capita income by the World Bank, consider the following statements:

- 1. The income categorisation is based on the Gross Domestic Product (GDP) per capita.
- 2. The classification is updated every year.

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 Answer: B

- **Statement 1 is incorrect:** The classification is based on GNI (Gross National Income) per capita (in current \$) of the previous year.
- **Statement 2 is correct:** Classification is updated each year on July 1.

Source: [Article](#)

Q.6) Which of the following countries is not a member of New Development Bank?

- a) Brazil
- b) Egypt
- c) India
- d) Iran

Correct Answer: D

Explanation

Recently, India has welcomed Egypt as the fourth new member of the New Development Bank (NDB).

Members: Brazil, Russia, India, China, South Africa, Bangladesh, United Arab Emirates (UAE) Uruguay and Egypt.

Source: [India welcomes Egypt as member of New Development Bank of BRICS](#)

Q.7) With reference to the Registration Convention, consider the following statements:

- 1. It requires states to furnish to the United Nations with details about the orbit of each space object.
- 2. The convention is administered by the United Nations Security Council.

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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 Answer: a

Explanation

- **Statement 1 is correct:** The Convention on Registration of Objects Launched into Outer Space (commonly known as the Registration Convention) was considered and negotiated by the Legal Subcommittee from 1962. The convention requires states to furnish to the United Nations with details about the orbit of each space object. A registry of launchings was already being maintained by the United Nations as a result of a General Assembly Resolution in 1962.
- **Statement 2 is incorrect:** The Registration Convention and four other space law treaties are administered by the United Nations Committee on the Peaceful Uses of Outer Space (UN-COPUOS).

Source: [Article](#)

Art and Culture

Q.1) With reference to **Konark Sun Temple**, consider the following statements:

1. It was built by King Narasimhadeva I of the Eastern Ganga Dynasty.
2. It is not part of golden triangle of Odisha.
3. Sailors once called this Temple as the Black Pagoda because it was supposed to draw ships into the shore and cause shipwrecks..

Which of the statements given above is/are correct?

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

Correct Answer: D

Explanation

Statement 1 and 3 is correct.

Statement 2 is incorrect: The temple forms part of the golden triangle of Odisha, along with Puri and Bhubaneswar. It was given the status of a World Heritage Site in 1984 by UNESCO.

Source: [Konark Sun Temple: Added by British for stability, sand inside Konark Sun Temple may be cleared](#)

Economy

Q.1) With reference to **Direct-to-Consumer Model**, consider the following statements:

1. It is an economic model in which manufacturers/producers sell their products online directly to the end-consumers.
2. This model facilitates easy liquidation of business in a situation of failure, offering a relatively convenient exit to entrepreneurs.

Which of the statements given above is/are incorrect?

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

Correct Answer: d

Explanation

Both statements are correct.

Source: [\[Yojana December Summary\] Direct-to-Consumer Model – Explained, pointwise](#)

Q.2) With reference to recently launched **Automatic Generation Control (AGC)**, consider the following statements:

1. Its objective is to tackle the fluctuating nature of energy from renewables.
2. It is being operated through the National Load Despatch Centre (NLDC).

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 Answer: c

Explanation

Both statements are correct.

- Renewable energy (RE) generation in India has been on a steady rise. However, the fluctuating nature of energy from renewables requires power balancing in real-time to keep supply and demand in sync. Hence, the AGC has been launched.
- **Operated by:** AGC is being operated by Power System Operation Corporation (POSOCO) through the National Load Despatch Centre (NLDC).
- **Function:** Through AGC, NLDC can send signals to more than 50 power plants in the country every 4 seconds to maintain the frequency and reliability of the Indian Power System. This will ensure more efficient and automatic frequency control for handling variable and intermittent renewable generation.

Source: [Article](#)

Q.3) With reference to **IC15**, consider the following statements:

1. It is the first index in India that can act as a benchmark of the underlying cryptocurrency market
2. Securities and Exchange Board of India (SEBI) will be responsible for its monitoring.

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3. Performance of the underlying Cryptocurrencies in the index is measured on the basis of market capitalization.

Which of the statements given above is/are correct?

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

Correct Answer: C

Explanation

- **Statement 1 is correct:** IC15, launched by Superapp CryptoWire, is the first index in India that can act as a benchmark of the underlying cryptocurrency market and the performance benchmark for fund managers.
- **Statement 2 is incorrect:** An Index Governance Committee (IGC) of domain experts, industry practitioners, and academicians will select cryptocurrencies from the top 400 coins in terms of market capitalization. It will also be in charge of **monitoring and maintaining the index**, including reshuffling of the top 15 cryptos.
- **Statement 3 is correct:** It will measure the performance of the 15 most widely traded cryptocurrencies listed on leading crypto exchanges by market capitalization.

Source: [Article](#)

Q.4) Dharashakti, THANOS, Tan90, Krishakti was seen in news. The terms related to which of the following?

- a) New cruise missiles developed by DRDO
- b) New drones developed by ISRO
- c) New innovative technologies to help farmers
- d) New technologies to mitigate air pollution

Correct Answer: C

Explanation

The AGNIi (Accelerating Growth of New India's Innovations) Mission, in partnership with Common Service Center, successfully conducted a series of Digital Technology Showcases focused on innovations for rural India. It identified 7 key technologies,

'Dharashakti' is easy-to-use soil organic carbon detection and testing kit which can help the farmers in optimum use of fertilisers.

'Soil Saathi' is a lightweight chemistry analyzer with the ability to test 22 parameters in soil and water and advise fertilizer requirements based on crop and agro-climatic conditions.

'Tan90' is a portable cold storage unit to plug the gaps in cold chain which can help to reduce post-harvest losses in crops.

'Saptkrishi' is also a low-cost, technological solution that extends the shelf life of perishable horticultural produce.

'Krishakti' is smart and intelligent precision spraying drone for crops and can drastically reduce the indiscriminate sprays of pesticides.

'THANOS' is also a drone-based autonomous spraying platform that sprays an acre in a fraction of the time uniformly.

'Avatar Small Wind Turbine' are wind turbines and can be deployed as decentralised and distributed renewable energy solutions for urban and rural

Q.5) With reference to AT1 bonds, consider the following statements:

1. These are unsecured bonds with no maturity date.
2. They were introduced by the Basel accord after the global financial crisis.
3. Investors cannot return these bonds to the issuing bank and get the money.

Which of the statements given above is/are correct?

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

Correct Answer: d

Explanation

All statements are correct.

- **AT1 Bonds stand for additional tier-1 bonds.** These are unsecured bonds that have perpetual tenure. In other words, the bonds have no maturity date.
- **Purpose:** These bonds are typically used by banks to bolster their core or tier-1 capital. These bonds were introduced by the Basel accord after the global financial crisis.
- **Returns and Risk:** These bonds offer higher returns to investors but compared with other debt products, these instruments carry a higher risk as well.
- **AT1 bonds are subordinate to all other debt and only senior to common equity.** Mutual funds (MFs) are among the largest investors in AT1 Bonds. These **bonds have a call option**, which can be used by the banks to buy these bonds back from investors.
- Investors cannot return these bonds to the issuing bank and get the money. This means **there is no put option available to its holders.**
- Banks issuing AT-1 bonds can **skip interest payouts for a particular year** or even reduce the bond's face value, provided their capital ratios fall below certain threshold levels.
- If the RBI feels that a bank is on the brink of collapse and needs a rescue, it can **simply ask the bank to cancel its outstanding AT-1 bonds** without consulting its investors.

Source: [Article](#)

Q.6) With reference to Bioenergy crops, consider the following statements:

1. Bioenergy crops can be grown in marginal soils.
2. Converting annual crops to perennial bioenergy crops can induce a cooling effect on the areas where they are cultivated.

Which of the statements given above is/are incorrect?

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

Correct Answer: d

Explanation

Both statements are correct.

- Bioenergy crops are defined as any plant material used to produce bioenergy. These crops have the capacity to produce large volumes of biomass, high energy potential and can be grown in marginal soils.

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- According to a study, converting annual crops to perennial bioenergy crops can induce a cooling effect on the areas where they are cultivated.

Source: [Article](#)

Q.7) Which of the following benefits will occur in **Direct-to-Consumer Model**?

1. Enable young entrepreneurs to take up business.
2. Create additional business segments.
3. Reaching the economically wealthy consumers alone.

Select the correct answer using the code given below:

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

Correct Answer: C

Explanation

Advantages of D2C model are,

- Entrepreneurship is leaving the elite circles of the country and reaching the grassroots minds of India.
- Reaching grass root consumers.
- Enable young entrepreneurs to take up business.
- Create additional business segments.

Source: [\[Yojana December Summary\] Direct-to-Consumer Model – Explained, pointwise](#)

ENVIRONMENT

Q.1) With reference to *Neanotis prabhui*, consider the following statements:

1. It is a new species of burrowing frog.
2. It was discovered in the Chembra Peak grasslands of Wayanad.

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 Answer: b

Explanation

- **Statement 1 is incorrect:** It is a prostrate perennial herb.
- **Statement 2 is correct**

Source: [Article](#)

Q.2) Sultanpur National Park, is located in which of the following Indian state:

- a) Delhi
- b) Punjab
- c) Haryana
- d) Rajasthan

Correct Answer C

Explanation

Statement c is correct.

Source: [TOI](#)

Q.3) With reference to **Water Bird Status Survey, consider the following statements:**

1. The survey is conducted by BirdLife International.
2. The Survey was conducted in Chilika Lake.

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 Answer: B

Explanation

Statement 1 is incorrect. It was undertaken jointly by the Odisha State Wildlife Organization, the Chilika Development Authority(CDA) and the Bombay Natural History Society.

Statement 2 is correct.

Source: [Article](#)

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Q.4) Nalabana Bird Sanctuary sometimes seen in news is located in which of the following states?

- a) Jharkhand
- b) Odisha
- c) Chhattisgarh
- d) Bihar

Correct Answer: B

Explanation

- The bird sanctuary is located on Nalabana Island in the Chilika lagoon area in Odisha.

Source: [Article](#)

Q.5) With reference to Water Atlas, consider the following statements:

1. It maps all the water bodies in the tiger-bearing areas of India.
2. The atlas has been put together using remote-sensing data and Geographic Information System (GIS) mapping.

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 Answer: c

Explanation

Both statements are correct.

- The Ministry of Environment, Forest & Climate Change has released a Water Atlas. The atlas maps all the water bodies in the tiger-bearing areas of India.
- The atlas contains information about presence of such bodies in several areas including the Shivalik Hills and Gangetic plain landscape, Central Indian Landscape and Eastern Ghats, Western Ghats landscape etc.
- The atlas has been put together using remote-sensing data and Geographic Information System (GIS) mapping.

Source: [Article](#)

Q.6) With reference to Fimbristylis sunilii, consider the following statements:

1. It is a perennial plant discovered in Western ghats.
2. It has been listed as critically endangered in the IUCN red list of species.

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 Answer: A

Explanation

- **Statement 1 is correct:** It is a **perennial plant** of the Cyperaceae family. It stands 20-59 cm tall and was collected from an elevation of 1,100 metres in **Western Ghats** region.

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- **Statement 2 is incorrect:** It has been provisionally assessed as data deficient (DD) under the IUCN Red List categories.

Source: [Article](#)

Q.7) With reference to Tardigrades, consider the following statements:

1. They are near-microscopic multicellular organisms.
2. Arctic is the only place where they are not found on earth.
3. They have the ability to survive Cryptobiosis.

Which of the statements given above is/are correct?

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

Correct Answer: C

Explanation

- **Statement 1 is correct:** Tardigrades are also called water bears or moss piglets. They are near-microscopic multicellular organisms. They were discovered in 1773 by the German zoologist Johann August Ephraim Goeze who dubbed them - "little water bear.
- **Statement 2 is incorrect:** Tardigrades are found everywhere in terrestrial, marine, and freshwater environments from the Arctic to the Antarctic, including great depths and altitudes.
- **Statement 3 is correct:** They are known to survive extreme conditions — such as exposure to extreme temperatures, extreme pressures (both high and low), air deprivation through a latent state of life known as cryptobiosis. Tardigrades have also survived exposure to outer space

Source: [Article](#)

Q.8) With reference to Tiger Reserves in India, consider the following statements:

1. They aim to conserve both the habitat and prey base of a tiger.
2. Sariska is the first tiger reserve in India.
3. Project Tiger aims for in-situ conservation of wild tigers.

Which of the statements given above is/are correct?

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

Correct Answer: C

Explanation

- **Statement 1 is correct:** Tiger Reserves are areas of protection for tigers. They aim to conserve the habitat to ensure a viable population of the tigers along with their prey base in their habitat.
- **Statement 2 is incorrect:** Bandipur Tiger Reserve in Karnataka is the first tiger reserve in India

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- **Statement 3 is correct:** Project Tiger is a Centrally Sponsored Scheme of the Government of India launched in 1973. It aims for in-situ conservation of wild tigers in designated tiger reserves.

Source: [Article](#)

ForumIAS

Polity and Governance

Q.1) With reference to **Economically Weaker Sections(EWS) and Other Backward Classes (OBC)**, consider the following statements:

1. EWS's criteria relates to the financial year prior to the year of application, whereas the income criterion for the creamy layer in the OBC category is applicable to gross annual income for three consecutive years.
2. In the case of the OBC creamy layer, income from salaries, agriculture and traditional artisanal professions are excluded from the consideration whereas the ₹8 lakh criteria for EWS includes all sources, including farming.

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

Both the Statements are correct.

Source: [Retain Rs 8 lakh EWS cap for admissions, recommends panel](#)

Q.2) What are the advantages of **Non-Governmental Organisation?**

1. Help state to implement welfare activities.
2. Build the capacities of citizens to hold governments accountable.
3. Help the state to focus on governance issues.

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 Answer: D

Explanation

Source: [CSR and NGOs: Aiding in governance](#)

GEOGRAPHY - MAP BASED QUESTIONS – WORLD LOCATIONS

Q.1) Arrange the following ports from South to North:

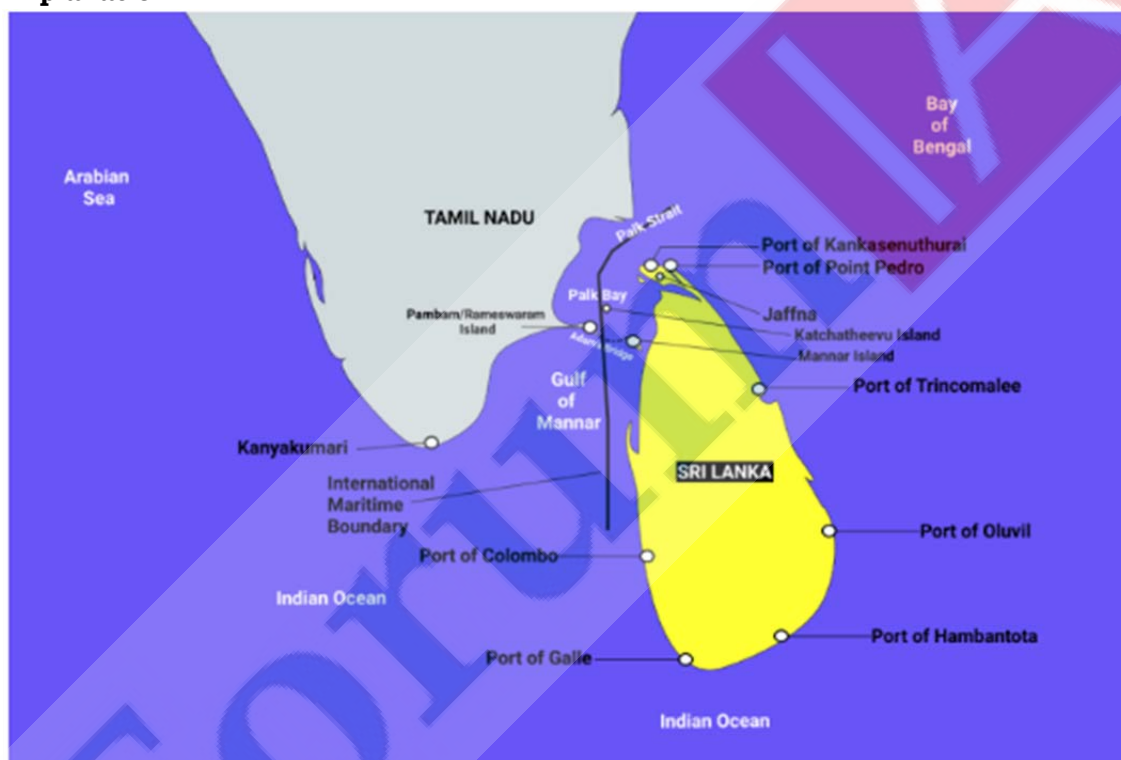
1. Colombo
2. Trincomalee
3. Hambantota

Select the correct answer from the codes given below:

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

Correct Answer: d

Explanation



Source: [Article](#), [Article 2](#)

Q.2) The Aravalli range is spread across which of the following states?

1. Rajasthan
2. Gujarat
3. Delhi
4. Punjab

Select the correct answer using the code given below:

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

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Correct Answer: B

Explanation

The Aravalli range is spread across the states of Gujarat, Rajasthan, Haryana and Delhi.

Source: [Protect the Aravalli Range](#)

Q.3) Recently India's First Open Rock Museum was inaugurated in which of the following place?

- a) Chennai
- b) Hyderabad
- c) Delhi
- d) Amritsar

Correct Answer: B

Explanation

Union Minister of State for Science & Technology has inaugurated India's first open rock museum on the campus of the CSIR-National Geophysical Research Institute (NGRI) in Hyderabad.

Source: [Open rock museum: Union Minister inaugurates India's first Open Rock Museum on NGRI campus](#)

Q.4) Which of the following group of countries borders Kazakhstan?

- a) China, Russia and Afghanistan
- b) Afghanistan, Uzbekistan and Kyrgyzstan
- c) Russia, Tajikistan and Turkmenistan
- d) Uzbekistan, Turkmenistan and Kyrgyzstan

Correct Answer D

Explanation

Statement d is correct: Kazakhstan borders with Uzbekistan, China, Russia, Turkmenistan, and Kyrgyzstan.

Source: [Indian Express](#)

Q.5) With reference to Mount Nyiragongo, consider the following statements:

1. It is a stratovolcano.
2. Lake Kivu lies to the North of the volcano.

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 Answer: A

Explanation

- **Statement 1 is correct:** It is a large **stratovolcano** near **Lake Kivu** at the eastern border of the Democratic Republic of Congo (DRC) with **Rwanda** and lies (19 km) north of Goma.
- **Statement 2 is incorrect:** Lake Kivu lies to the South of the Mt Nyiragongo

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Source: [Article](#)
Modern History

Q.1) With reference to **Rani Velu Nachiyar**, consider the following statements:

1. She is the 18th century queen from Sivagangai district in Tamil Nadu.
2. She created a women's only army called Udaiyaal.

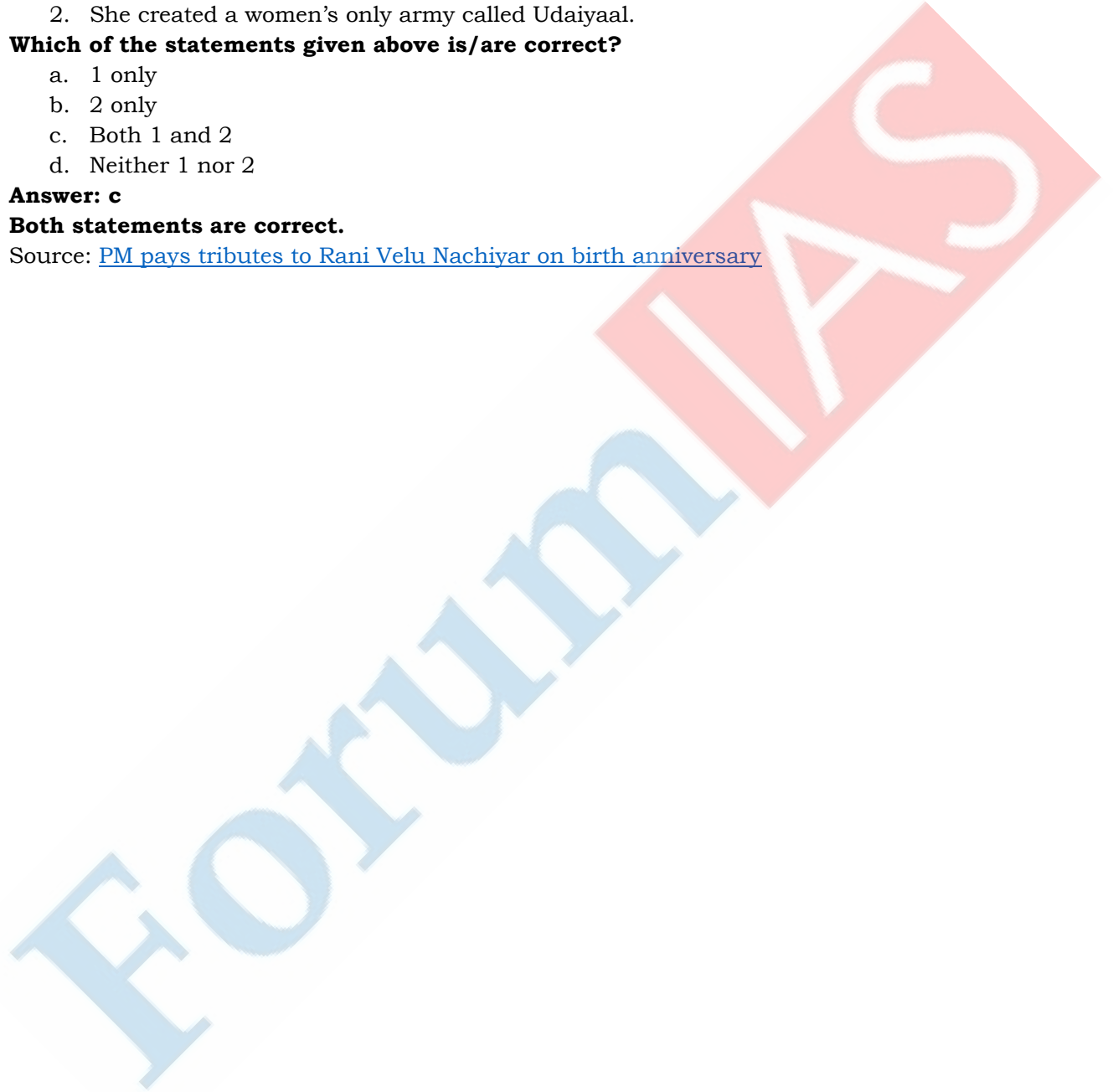
Which of the statements given above is/are correct?

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

Answer: c

Both statements are correct.

Source: [PM pays tributes to Rani Velu Nachiyar on birth anniversary](#)



Bills, Acts and Regulations – Acts - Religion

Q.1) With reference to **Muslim personal laws**, consider the following statements:

1. Dissolution of Muslim Marriages Act, 1939 codified the divorce law and gave the right to Muslim women for divorce.
2. So far, no efforts has been made to codify Muslim Personal Law.

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 Answer: A

Explanation

Statement 1 is correct.

Statement 2 is incorrect: The Hindu Marriage Act was codified in 1955. It includes the Sikhs and the Buddhists, who are religious minorities. The process of codification of laws began in 1937 for Muslims. If Partition had not happened, then Muslims would have had a codified law probably earlier than the Hindu community.

Source: [Muslim personal laws: Is it right to increase the age of marriage of women to 21?](#)