

UPSC CURRENT AFFAIRS MCQS 06-10-2023

1. Consider the following statements, with reference to Swavlamban 2.0:

1. It aims to improve indigenisation & self-reliance in defence.
2. It is a joint initiative of the Ministry of Defence & the Ministry of Home Affairs.
3. SPRINT innovative challenge is associated with Swavlamban.

How many of the statements given above are correct?

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

Answer: (b)

Explanation: In the recently concluded Swavlamban 2.0, a number of announcements were made by Raksha Mantri Shri Rajnath Singh to promote 'Aatmanirbharta' in defence and innovation. It is a two-day seminar of Naval Innovation and Indigenisation Organisation (NIIO). Defence Minister Rajnath Singh at the event released the fifth Positive Indigenisation List (PIL) of 98 items. The items will be procured by the three armed services from indigenous suppliers in a staggered manner as per specified timelines. Highly complex systems, sensors, weapons and ammunition have been included in the list. All these items will be procured from indigenous sources as per provisions given in Defence Acquisition Procedure (DAP) 2020 in staggered timeline. He also released the Indian Navy's updated Indigenisation Roadmap 'Swavlamban 2.0'. It was launched under 10th Defence India Start-up Challenges (DISC 10) & DISC 10 PRIME of Innovations for Defence Excellence (iDEX) and 5 problem statements under iDEX for Fauji. SPRINT innovative challenge was launched by Prime Minister Shri Narendra Modi during the Swavlamban seminar in 2022. It promotes the use of indigenous technology and products in the Navy, has helped in taking the country forward in becoming self-reliant in the defence sector. Hence, statement 2 is incorrect.

2. The objectives of the National Cancer Registry Programme includes which of the following?

1. To obtain an overview of patterns of cancer in different parts of the country.
2. To calculate estimates of cancer incidence wherever feasible.
3. To get to know the similarities and differences in patterns of cancer across the country.

4. To provide preventive, diagnostic, treatment and palliative services for Cancer.

Select the correct answer using the code given below:

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

Answer: (a)

Explanation: The main objectives of the programme are:

1. To obtain an overview of patterns of cancer in different parts of the country.
2. To calculate estimates of cancer incidence wherever feasible.
3. The overall aim of the study is to get to know the similarities and differences in patterns of cancer across the country in a relatively cost-effective way.

Since 1982, the National Cancer Registry Programme (NCPR) sources records via 2 mediums which are:

- Population-based cancer registries (PBCRs)
- Hospital-based cancer registries (HBCRs).

PBCRs trace incidence and trends for a defined geographical population in a region, while hospital-based registries focus on the medical symptoms, diagnosis and care of cancer cases. NCPR keeps records of 38 PBCRs and 189 HBCRs distributed through India. These registries are regulated under the National Centre for Disease Informatics and Research (NCDIR) of the Indian Council of Medical Research (ICMR). Since cancer is not a notifiable disease in India, data collection is active in nature.

Hence, option (a) is correct.

3. Consider the following statements, with reference to the Quantum Dots:

1. Quantum dots are particles that are few nanometres wide.
2. Quantum dots are known for their high fluorescence quantum yields.
3. The properties of quantum dots can be changed by changing their size.

How many of the statements given above are correct?

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

- (c) All three
- (d) None

Answer: (c)

Explanation: Recently the Chemistry Nobel Prize 2023 was awarded to the scientists for their discovery and synthesis of quantum dots. Quantum dots are particles that are a few nanometres wide. They exhibit unique optical properties due to their small physical size. Their structure and atomic composition are the same as bulk materials, but the properties of the bulk materials don't depend on their size. The properties of quantum dots can be changed by changing their size. At the scale of nanometres, materials and particles are capable of new, size-dependent properties because quantum physical forces start to dominate. Quantum dots are known for their high fluorescence quantum yields, making them efficient fluorophores in biological imaging and labeling. They offer photostability and reduced photobleaching. Quantum dots are used in photovoltaic cells to improve the absorption and efficiency in converting solar light into electricity. Certain cancer treatments use quantum dots for targeted drug delivery and other therapeutic measures. Quantum dots can be used as security markers on currency and documents as an anti-counterfeit measure. They can be used as fluorescent markers to tag and track objects. Hence, all statements are correct.

4. Consider the following statements regarding Lhonak Lake:

1. Lhonak Lake is a glacial-moraine-dammed lake.
2. It plays a role in the hydrological cycle benefiting the Teesta River basin.

Which of the above statements is/are correct?

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

Answer: (c)

Explanation: South Lhonak Lake is a glacial-moraine-dammed lake, located in Sikkim's far northwestern region. It is one of the fastest expanding lakes in the Sikkim Himalaya region, and one of the 14 potentially dangerous lakes susceptible to Glacial lake outburst flood (GLOFs). It plays a role in the hydrological cycle, releasing water downstream, ultimately benefiting the Teesta River basin. Hence, both statements are correct.

5. Recently, India signed RuPay Domestic Card Scheme Agreement with which country?



- (a) United Arab Emirates
- (b) Singapore
- (c) Switzerland
- (d) Brazil

Answer: (a)

Explanation: Recently, RuPay Domestic Card Scheme Agreement between India and the UAE. The DCS will aim to facilitate the growth of e-commerce and digital transactions in the UAE, bolster financial inclusion, support the UAE's digitization agenda, increase alternate payment options, reduce the cost of payments, and enhance the UAE's competitiveness and position as a global payments leader. The partnership aligns perfectly with NIPL's mission to offer its knowledge and expertise to assist other countries in establishing their own cost-efficient, and secure payment systems.