



Daily Current Affairs Prelims Quiz 15-11-2024 (Online Prelims Test)

1) Consider the following statements with respect to the International Centre of Insect Physiology and Ecology

1. It aims to address the paradox of insects and accompanying challenges.
2. It was established in 1970 and is headquartered at Philippines.
3. It is the only international institution in Africa working primarily on arthropods.

Select the correct answer using the code given below:

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

Answer : b

International Centre of Insect Physiology and Ecology

Scientists from the International Centre of Insect Physiology and Ecology have recently found that the larvae of the Kenyan lesser mealworm can consume polystyrene.

- International Centre of Insect Physiology and Ecology aims to address this very paradox of insects and accompanying challenges.
- It was established in 1970 and **Headquartered in Nairobi, Kenya. (Statement 2 is incorrect)**
- The Mission of it is to use insect science for sustainable development, to ensure food security and improve the overall health of communities in Africa.
- *It is the only international institution in Africa working primarily on arthropods. (Statement 3 is correct)*
- Therefore capacity building of individual researchers and institutions in Africa is an integral part of all the Centre's research and development activities.
- It also aims to empower women, harness the youth and build capacity to use, transfer and teach the Centre's technologies.
- **Kenyan Mealworm larvae** - Are capable of consuming polystyrene.
- Polystyrene, commonly known as styrofoam, is a plastic material that's widely used in food, electronic and industrial packaging.

2) Consider the following statements:

1. Bio-foundry is an integrated infrastructure that enables rapid design, construction and testing of genetically reprogrammed organisms.
2. Global Bio-foundry Alliance (GBA) is a community collective of publicly funded Bio-foundries across the world.
3. Indian Institute of Technology, Madras is a member of Global Bio-foundry Alliance (GBA).

How many of the statements given above are correct?

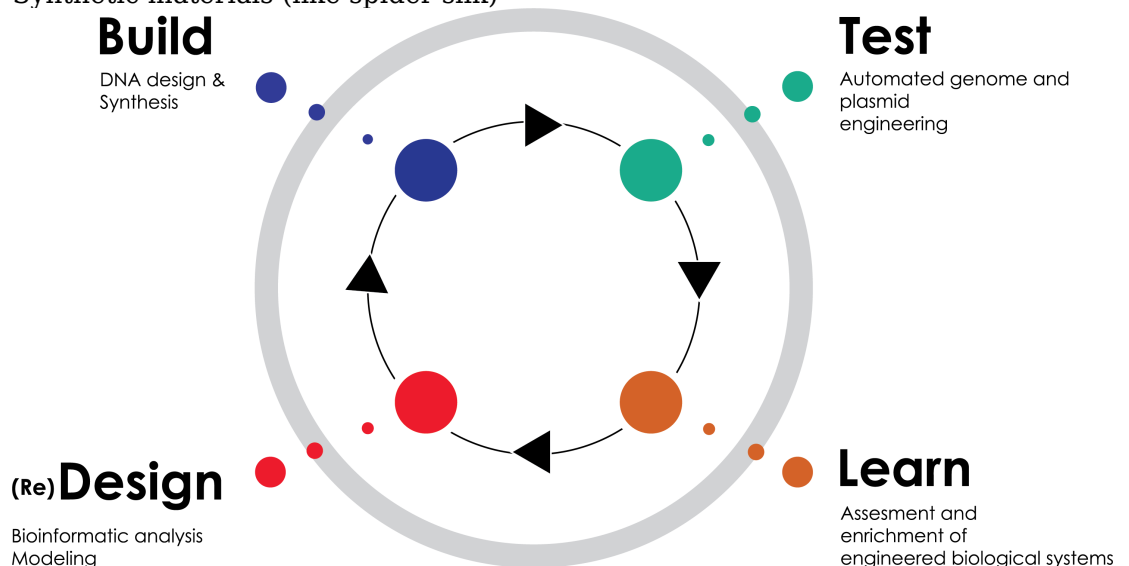
- a. Only one
- b. Only two
- c. All three
- d. None of the above

Answer : b

Bio-foundry

Recently, the Department of Biotechnology Launches Webinar Series on Bio-manufacturing and Bio-foundry Initiative.

- Bio-foundry is an integrated infrastructure that enables rapid design, construction, and testing of genetically reprogrammed organisms.
- The core components of the Bio-foundry include:
 - Automated systems for DNA synthesis and assembly
 - High-throughput robotics for liquid handling.
 - Advanced testing and measurement equipment.
 - Data analysis and learning capabilities.
- **The Applications of Biofoundry are:**
 - **Sustainable Manufacturing**
 - Converting waste to valuable products
 - Producing biofuels and bio-chemicals
 - **Healthcare Solutions:**
 - Vaccine development
 - Cancer therapies
 - Engineered probiotics
 - **Environmental Applications:**
 - Biosensors for contamination detection
 - Carbon capture solutions
 - **Novel Materials:**
 - Bioplastics
 - Engineered proteins
 - Synthetic materials (like spider silk)



- **Global Biofoundry Alliance (GBA)** - It was formally launched on May 9, 2019 in Kobe, Japan.
- **Members** - 15 non-commercial bio-foundries across world.
- **Indian Institute of Technology, Madras is not a member of Global Bio-foundry Alliance (GBA). (Statement 3 is incorrect)**
- The GBA has agreed to a non-binding Memorandum of Understanding, which does not establish any legal rights or obligations, but is a voluntary arrangement dependent upon goodwill and cooperation.
- **Primary Objectives:**
 - Develop and support non-commercial bio-foundries.
 - Foster collaboration and communication.
 - Address common challenges.
 - Enhance visibility and impact.
 - Work on global grand challenges.
- **Operating Model:**
 - Non-binding Memorandum of Understanding
 - Voluntary cooperation
 - Non-overlapping missions with for-profit entities

3) Partnerships for Accelerated Innovation and Research (PAIR) Programme, sometimes seen in the news recently, is an initiative by?

- a. Council of Scientific & Industrial Research (CSIR)
- b. Anusandhan National Research Foundation (ANRF)
- c. Biotechnology Research and Innovation Council (BRIC)
- d. Niti Aayog

Answer : b



Partnerships for Accelerated Innovation and Research (PAIR) Programme

The PAIR Program was recently launched by the ANRF to bring major transformation in Indian Universities.

- Partnerships for Accelerated Innovation and Research (PAIR) Programme will *cultivate research excellence in central and state public universities* by fostering collaborations with top-tier institutions via a mentorship-driven *hub and spoke model*.
- The programme aims to *stimulate innovation in emerging institutions* by leveraging mentorship from high-ranking institutions.

The hub and spoke model is a structure that centralizes a lead organization or hub with partner organizations or spokes that are directly linked to it.

- It is an initiative of [Anusandhan National Research Foundation \(ANRF\)](#).
- PAIR Programme is aligned with the objectives set by the National Education Policy (NEP) 2020.
- The hubs will guide emerging institutions (spokes) in research activities.
- The hub will also provide access to harness their resources and expertise, thus bridging the gap between institutions and nurturing a robust research ecosystem in India.
- The *hub and spoke model* which *pairs universities* where research is at a nascent stage, with top-tier established institutions.
- The programme stands as a *catalyst for transformative research* in universities which have

potential, with well-established institutions providing the necessary mentorship to elevate overall research standards.

- While Hub institutions will include the top 25 NIRF overall ranking as well as Institutions of National Importance within the top 50 NIRF overall ranking
- Central and State Public Universities and select NITs and IITs will be added as the spoke institutions.
- Each PAIR network would consist of one hub and up to 7 spoke institutions.
- Only one proposal per hub institution is allowed, with a mandatory involvement of multi-departmental faculty teams from spoke institutions.

4) Consider the following statements:

Statement-I: India's 'Know Your Medicine (KYM)' app is an innovative tool to empower athletes with critical information, helping them avoid inadvertent doping and maintain fair play.

Statement-II: National Anti-Doping Agency of India is an autonomous body under the Ministry of Youth Affairs & Sports.

Select the correct answer using the codes given below:

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

Answer : b

India's 'Know Your Medicine (KYM)' App

- India's 'Know Your Medicine (KYM)' app is an innovative tool that aims to empower athletes with critical information, helping them avoid inadvertent doping and maintain fair play.
- KYM app helps **to eliminate inadvertent doping** and contribute to a fair and transparent sporting culture.
- The KYM app is part of National Anti-Doping Agency of India's broader mission to *raise anti-doping awareness and education*, equipping athletes with essential information to stay clean.
- The app allows users to easily verify whether a specific medicine or its ingredients contain any substances listed as *prohibited by the World Anti-Doping Agency (WADA)*.
- By offering this quick and seamless verification, the KYM app helps *athletes to stay informed* and uphold integrity of sport, fostering a culture of fair and ethical sportsmanship.
- Its unique features of image and audio search, enables user to select their sport category and search specific sport related information making it convenient for the user to effortlessly access the desired information.
- **National Anti-Doping Agency (NADA), India** - Is an **autonomous body** under the **Ministry of Youth Affairs & Sports**.
- It implements the *anti-doping programme in India*, in line with the World Anti-doping Code 2021.
- It works in close collaboration with the sport ecosystem to create a dope-free sporting environment in the country.
- NADA India collaborates other national anti-doping organizations to strengthen clean sporting practices, contribute to evolving the guidelines and ensure athletes can compete on a level playing field across the world.
- **World Anti-Doping Agency (WADA)** - It was established in 1999 as an international independent agency to lead a collaborative worldwide movement for doping-free sport.
- WADA's governance and funding are based on equal partnership between the Sport Movement and Governments of the world.
- WADA's primary role is to develop, harmonize and coordinate anti-doping rules and policies across all sports and countries.
- The *World Anti-Doping Code (Code)* is the core document that *harmonizes anti-doping policies*,

rules and regulations within sport organizations and among public authorities around the world.

5) Consider the following statements with respect to Operation Dronagiri

1. It aims to demonstrate the formidable capabilities and operational strength of Indian Navy.
2. It was held at pristine Blue Flag Beach in Odisha.

Which of the above statement(s) is/are correct?

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

Answer : d

Operation Dronagiri

The Operation Dronagiri was recently launched by Department of Science and Technology to demonstrate the potential applications of geospatial technologies and innovations.

- The Operation Dronagiri will *demonstrate the potential applications of geospatial technologies and innovations* in improving the quality of life of citizens and ease of doing business.
- It was **launched by Department of Science and Technology**.
- It is a pilot project under National Geospatial Policy 2022.
- In the first phase, Operation Dronagiri will be implemented in the states of Uttar Pradesh, Haryana, Assam, Andhra Pradesh, and Maharashtra.
- The pilot projects will be run and use cases will be demonstrated in 3 sectors such as *agriculture, livelihoods, logistics and transport*.
- IIT Tirupati Navavishkar I-Hub Foundation (IITTNiF) will oversight the operation.