

1. National Geophysical Research Institute is located in which city?

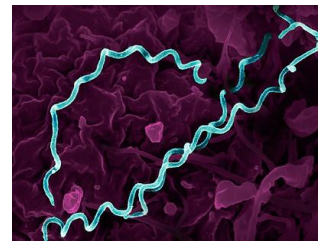
- A. Chennai
- B. Hyderabad
- C. Mumbai
- D. Kolkata



- ✓ Scientists from the National Geophysical Research Institute (NGRI) have discovered evidence highlighting the ancient connection between the Indian subcontinent and Antarctica. Established in 1961, NGRI, based in Hyderabad, is part of the Council of Scientific and Industrial Research (CSIR). The institute conducts research in geodynamics, earthquake hazards, and natural resources to inform sustainable geo-resource use and improve resilience to natural hazards.

2. Syphilis disease is caused by which agent?

- A. Virus
- B. Bacteria
- C. Fungi
- D. Protozoa



- ✓ Improved testing by the Mumbai AIDS Control Society (MDACS) has identified over 6,000 syphilis cases between 2018-19 and 2022-23. Syphilis, caused by the Treponema pallidum bacterium, is a sexually transmitted infection that can remain symptomless for years but may reactivate. It spreads through sexual contact and can affect unborn babies. Symptoms include painless sores and skin rashes. Treatable with antibiotics, penicillin is the most common medication, especially effective in early stages.

3. What is the primary objective of e-FAST India initiative?

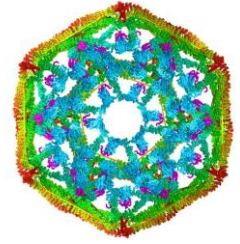
- A. Increase road infrastructure
- B. Decarbonize road-based freight transportation
- C. Promote electric vehicles for personal use
- D. Enhance fuel efficiency in trucks



- ✓ NITI Aayog has launched the 'NITI GearShift Challenge' under the e-FAST India initiative, aimed at decarbonizing road-based freight transportation in India to meet 2070 net zero commitments. Launched in September 2022, e-FAST promotes cleaner freight solutions through national and international collaborations, supporting pilot programs and technology integration. The initiative fosters discussions among stakeholders, including government bodies and logistics providers, to enhance the adoption of electric technologies in the freight sector, backed by 12 knowledge partners.

4. What are 'Chaperones'?

- A. Critical Minerals
- B. They are group of proteins
- C. These are invasive plants
- D. Newly discovered species of marine animals



- ✓ Researchers at the SN Bose National Centre for Basic Sciences are using a Covalent Magnetic Tweezer (CMT) to investigate protein molecules and the role of chaperones in their folding. Chaperones, group of proteins, crucial for preventing misfolding and aggregation, assist in proper protein formation, particularly under stress. Major human chaperones include HSP70 and HSP90. Misfolded proteins can lead to diseases such as Parkinson's, Alzheimer's, and congenital cataracts, highlighting the importance of chaperones in cellular function.

5. Which INS has been adjudged the Best Ship of the Eastern Fleet at the annual 'Fleet Awards Function-2024'?

- A. INS Delhi
- B. INS Karanj
- C. INS Shakti
- D. INS Vagir



- ✓ At the annual 'Fleet Awards Function-2024' in Visakhapatnam on July 14, INS Delhi was recognized as the Best Ship of the Eastern Fleet for its operational achievements over the past year. INS Kavaratti received the award for Best Ship in the Corvettes/OPVs/LSTs category. Additionally, INS Shivalik, INS Sumedha, and INS Sumitra were acknowledged as the most spirited ships of the Sunrise Fleet for their performance in various challenging missions.

6. Which organization recently released the 'Navigating New Horizons: A Global Foresight' report?

- A. United Nations Environment Programme
- B. United Nations Development Programme
- C. World Bank
- D. International Monetary Fund



- ✓ The UNEP's report "Navigating New Horizons" identifies critical global shifts exacerbating the triple planetary crisis of pollution, biodiversity loss, and climate change.
- ✓ It highlights the interconnectedness of today's global polycrisis, which includes wars, extreme weather, and pandemics, driven by globalization. Key issues addressed include changing human-environment relationships, resource scarcity impacting global security, technological innovations like AI, increased risks from autonomous weapons, mass displacement of 1.5% of the population, and rising eco-anxiety.

7. Which institute recently unveiled plans to use technology to enhance India's chess capabilities?

- A. IIT Kanpur
- B. IIT Madras
- C. IIT Mandi
- D. IIT Ahmedabad



- ✓ The IIT Madras Centre of Excellence in Sports Science and Analytics (CESSA) announced plans to leverage technology to enhance India's chess capabilities. This initiative aims to boost fan engagement, provide anti-cheating solutions, and enhance chess training programs. It includes launching new courses on NPTEL and future sports education programs.

8. APSTAR-6E Satellite was developed by which country?

- A. India
- B. China
- C. Japan
- D. Russia



- ✓ China's APSTAR-6E satellite has commenced operations after successful technical reviews in orbit and Hong Kong. Developed by the China Aerospace Science and Technology Corporation, it is China's first all-electric propulsion communication satellite, launched on January 13, 2023. The satellite, designed to last 15 years, provides high-capacity broadband services across Southeast Asia.

9. Recently, the Serum Institute of India and Oxford University have launched a 'high efficacy' malaria vaccine, R21/Matrix-M, in which country?

- A. Mali
- B. Ivory Coast
- C. Ghana
- D. Nigeria



- ✓ Ivory Coast is the first country to deploy the R21 malaria vaccine developed by the Serum Institute of India and Oxford University. Authorized by multiple African countries, the vaccine aims to initially immunize 250,000 children, with plans to reach millions more with Gavi's support. Recommended by WHO for children under five, the vaccine targets a disease responsible for over 600,000 deaths annually, predominantly in Africa.

10. What is the primary purpose of the 'NERACE' web portal, recently launched in Shillong?

- A. To promote tourism in the Northeast
- B. To connect the farming community and buyers in the Northeastern region



C. To provide educational resources for students

D. To support local art and crafts

- ✓ **Union Minister Jyotiraditya Scindia launched the North East Region Agri Commodity E-Connect (NERACE) web portal and app in Shillong to benefit Northeastern farmers and buyers. NERACE supports products like spices, fruits, and vegetables, providing farmers with larger markets and better pricing. The platform supports seven languages and aims to connect producers, buyers, and service providers globally.**

11. Recently, the External Affairs Minister S Jaishankar inaugurated "Maitree Udyan" as a symbol of friendship in which country?

A. Vietnam

B. Australia

C. Mauritius

D. Singapore



- ✓ **External Affairs Minister Dr. S. Jaishankar inaugurated the India-Mauritius Maitree Udyan in Port Louis on July 16, 2024. He planted a tree alongside Mauritius Foreign Minister Maneesh Gobin. During his two-day visit, Dr. Jaishankar met with Prime Minister Pravind Jugnauth, visited the India-assisted Civil Service College project.**

12. What is the name of the weight-loss drug recently approved by India's drug regulator?

A. Tirzepatide

B. Pyrazinamide

C. Niacinamide

D. Atovaquone



- ✓ **India's drug regulator has approved tirzepatide, a weight-loss drug. Both tirzepatide and semaglutide, FDA-approved, are polypeptides that boost GLP-1 and, in tirzepatide's case, GIP, regulating weight and glucose levels. They target neurons and brain mechanisms to induce satiety, suitable for those with a BMI over 27 and related health conditions. Side effects include nausea, diarrhea, vomiting, and abdominal pain.**

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