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VidyaDaan 2.0

- Ministry of HRD launched national program VidyaDaan 2.0 for inviting e-learning Content contributions.
- VidyaDaan is a common national programme to develop and contribute e-learning content and a chance to be recognized nationally.
- VidyaDaan is conceptualised as a common national program for individuals and organizations across the country to contribute e-learning resources for both school and higher education to ensure continuity of quality learning.
- The content will be used on the DIKSHA app to help millions of children across the country to continue their learning anytime and anywhere.

DIKSHA

- The DIKSHA platform offers teachers, students and parents engaging learning material relevant to the prescribed school curriculum.
- It is built considering the whole teacher's life cycle - from the time student teachers enroll in Teacher Education Institutes (TEIs) to after they retire as teachers.
- The DIKSHA Platform is launched by Ministry of HRD, it has been operating since 2017 with more than 30 States and Union Territories leveraging DIKSHA for augmenting teaching and learning processes.

Genome sequencing of Plants and Animals

- Genome sequencing is ostensibly the process of determining the complete DNA sequence of an organism's genome at a single time.
- This entails sequencing all of an organism's chromosomal DNA as well as DNA contained in the mitochondria and, for plants, in the chloroplast.
- Whole genome sequencing should not be confused with DNA profiling, which only determines the likelihood that genetic material came from a particular individual or group, and does not contain additional information on genetic relationships, origin or susceptibility to specific diseases.

Indian Initiative on Earth Bio Genome Sequencing (IIEBS)

- IIEBS is a nationwide project to decode the genetic information of all known species of plants and animals in the country.
- The project is part of the Earth Bio Genome Project, an international initiative which aims to sequence the genetic codes of all of earth's eukaryotic biodiversity over a period of 10 years.
- The whole genome sequencing of 1,000 species of plants and animals will be taken up in the initial phase of IIEBS to be completed over a period of five years at an estimated cost of ₹440 crore.
- The National Institute of Plant Genome Research, New Delhi is the coordinating center for the nationwide project involving a total of 24 institutes.
- The Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) has been selected as one of the Biological Knowledge and Resource Centers of the Indian Initiative on Earth Bio Genome Sequencing (IIEBS).
- The project is planning for a nationwide project to decode the genetic information of all known species of plants and animals in the country.
- The digital repository of genome sequences is expected to provide the critical infrastructure for better understanding of ecosystems and conservation of biodiversity as well as the development of new treatments for infectious and inherited diseases, agricultural products, biomaterials and biological fuels.

Litchi Production

- The Litchi is an important sub-tropical evergreen fruit crop believed to have originated in China.
- It is highly specific to climatic requirements and probably due to this reason its cultivation is restricted to few countries in the world.
- In India, lychee was introduced in the 18th century through Burma, and from there, it spread to many countries.
- India and China account for 91 percent of the world lychee production but it is mainly marketed locally.
- Lychee being exacting in climatic requirement is confined to states of Bihar, Tripura, West Bengal, Uttar Pradesh, Punjab and Haryana.
- Of the total production of lychee in India, 74 percent is contributed by Bihar.
- The second largest lychee producing state is West Bengal followed by Tripura and Assam.
- Muzaffarpur district in Bihar accounts for almost 40% of the total litchi

production in the country.
- The peak litchi season in India is between the third week of May and the second week of June.
- Due to Covid-19 pandemic litchi growers in India are facing huge losses.

NanoBlitz 3D

- International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) has developed an advanced tool NanoBlitz 3D.
- It is used for mapping Nano-mechanical properties of materials like multi-phase alloys, composites, and multi-layered coatings.
- The tool has been found to yield excellent results on a wide range of material systems, including glass-fibre-reinforced polymer composites, dual-phase steels, softwood and shale.
- It can measure hardness and elastic modulus of a given material.

Kasowal Bridge

- BRO has constructed and opened a 484- metre long permanent bridge on the river Ravi to connect the Kasowal enclave of Punjab along the Pakistan border to the rest of the country.
- Kasowal enclave is around 35 square km, It was connected through a pontoon bridge of limited load capacity.
- The enclave was formed because it has the Ravi behind it and the International Border ahead of it.
- There are similar enclaves of Pakistani territory too, which lie ahead of Ravi and face Indian Territory.
- These Pakistani enclaves Dera Baba Nanak enclave and Jassar enclave were occupied by the Indian Army in the 1965 and 1971 wars.

Source: PIB, the Hindu, New on AIR

SHANKAR IAS PARLIAMENT
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