Prelim Bits 10-08-2018

Unnat Bharat Programme 2.0

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- The Government has recently launched the phase-2 of Unnat Bharat Abhiyan.
- It is the flagship programme of Ministry of Human Resource and Development.

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• It aims to link the Higher Education Institutions with atleast (5) villages, to enable the institutions contribute to the economic and social betterment of these village communities using their knowledge base.

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- The institutions will provide the knowledge and technology support to improve the livelihoods in rural areas.
- It will also helps in upgrading the capabilities of both the public and private sectors.

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- Both technical and non-technical institutions have been invited to build systems in villages as per their strengths.
- Each selected institute would adopt a cluster of villages / panchayats and gradually expand the outreach over a period of time.
- \bullet IIT Delhi has been designated to function as the National Coordinating Institute for this program. $\ensuremath{\backslash} n$

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Global Innovation Index - 2018

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- \bullet The 2018 edition of the index was recently launched in New Delhi. $\ensuremath{^{\backslash n}}$
- The event was organized by the Confederation of Indian Industry (CII) along with the World Intellectual Property Organization (WIPO) and Department of Industrial Policy and Promotion (DIPP).
- The index developed jointly by Cornell University, the Paris-based business school Insead and WIPO in Geneva.
- The top rankers of 2018 are Switzerland, Netherlands and Sweden. \footnote{Nn}
- India's rank has been improved from 60 in 2017 to 57 in 2018. $\ensuremath{^{\backslash n}}$
- India also ranked 1st in ICT service exports category and 4th in labour productivity growth.
- The GII indicators are grouped into innovation inputs and outputs.
- Innovation inputs capture the efforts made by the country to boost innovation.
- \bullet Innovation outputs measure the results of these efforts in terms of scientific publications, patents, trademarks, production, exports and other outputs. \n
- India is 2nd among middle-income economies (after China) in the indicators that capture the quality of the innovation inputs and outputs.
- NITI Aayog has decided to join hands with CII to develop a Roadmap for Top 10 Rank in GII.

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Deputy Chairman - Rajya Sabha

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• Harivansh Narayan Singh was elected as the Deputy Chairman of the Rajya Sabha recently.

- Article 89 of the constitution has the provision about the method of the election of Deputy chairman of Rajya Sabha.
- The Deputy Chairman is elected from amongst the Rajya Sabha members.

• The chairman of Rajya Sabha (Vice President of India) presides over the session of election of Dy. Chairman.

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• He/She presides over the proceedings of the Rajya Sabha in the absence of the Chairman of the Rajya Sabha.

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 He/She will perform the functions of Rajya Sabha Chairman in case of a vacancy or when the Vice-President is discharging the functions of the President.

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- There is also a panel of six Vice-Chairmen, which is constituted every year.
- \bullet A Vice-Chairman presides over the meeting of the Rajya Sabha in the absence of the Chairman or the Deputy Chairman. $\mbox{\sc h}$

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World Biofuel Day

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- World Biofuel Day is observed every year on August 10.
- Its aim is to create awareness about the importance of non-fossil fuels as an alternative to conventional fossil fuels.

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• It is being observed by the Ministry of Petroleum & Natural Gas for the last three years.

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• Since 2014, the Government of India has taken a number of initiatives to increase blending of biofuels.

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• The major interventions include, \n

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i. Administrative price mechanism for ethanol,

ii. Simplifying the procurement procedures of Oil Marketing Companies, $\ensuremath{^{\backslash n}}$

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• iii. Ethanol blending in petrol (from 38 crore litres in the ethanol supply year

2013-14 to 141 crore litres in 2017-18), \n

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 $\ensuremath{\mathrm{iv}}.$ Setting up of 2nd generation Bio-refineries to augment ethanol supply.

v. National Policy on Biofuels-2018 with the objective of reaching 20% ethanol-blending and 5% biodiesel-blending by the year 2030.

vi. The policy expands the scope of feedstock for ethanol production and has provided for incentives for production of advanced biofuels. \n

vii. Reduction of GST rates on ethanol for blending in fuel from 18% to 5%.

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Radio Galaxy Spotted

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 Radio galaxy are colossal galaxies with a super massive black hole in their centre that actively accretes gas and dust from its surroundings.

• They are very rare objects in the universe.

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 Most distant radio galaxy ever known, located at a distance of 12 billion light-years was discovered by Indian Telescope.

• It was found using the Giant Metrewave Radio Telescope (GMRT) in Pune, operated by the National Centre for Radio Astrophysics.

- The distance to this galaxy was determined using the Gemini North telescope in Hawaii and the Large Binocular Telescope in Arizona.
- \bullet This discovery is important for understanding of the formation and evolution of galaxies. $\ensuremath{\backslash n}$

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Thermal Battery Plant

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World's first-ever thermal battery plant was recently inaugurated in Andhra Pradesh.
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It aims to create a new energy storage form with commercial applications, maintaining a low carbon footprint and less dependent on external factors like weather.

• Conventional battery technology is based on the system of charging/discharging cycles that are driven by electricity. Eg. Lithium ion battery used in electronic devices.

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• Thermal batteries, use thermal energy to operate, i.e. the energy created by temperature differences.

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- The energy transfer in thermal batteries helps store heat when heat travels from one part of the battery setup to the other.
- Working of Thermal Battery It consists of two parts such as a cool zone known as sink, and a hot source called source.
- \bullet When the sink of a thermal battery receives heat, it transforms physically or chemically, thereby storing energy, while the source cools down. \n
- \bullet During operation, the sink is cooled down, so it releases the stored energy, while the source heats up. $\mbox{\sc h}$
- **Applications** Electric vehicles, Telecom infrastructures, Power intensive industries.

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Source: The Hindu, PIB

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