Prelim Bits 14-05-2018

Development and upgradation of Botanic Garden in Noida

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- Union Minister for Environment, Forest and Climate Change laid the foundation-stone for the development and up gradation of the Botanic Garden of Indian Republic (BGIR) at Noida recently.
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- The Garden is being developed and upgraded with the objectives of collection of plant species, research, training, environment education, public awareness, aesthetics and entertainment through the protection of plant biodiversity
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- It is to be developed as a centre of excellence in the preservation of Rare, Endangered and Threatened (RET) and local plant species.
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- A gene bank, seed bank, herbarium unit, orchid house, cactus house, nursery, plant biodiversity, research facility, education and maintenance will be developed in the Botanic Garden.
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- At present, more than 10,500 individuals of about 900 plant species brought from 23 states of the country have been conserved in the garden.
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- They are conserved under various sections/areas like Economic Plant, Green Belt/Woodland, Fruit, Medicinal Plant, Cactus & Succulents, Nurseries and Water bodies.
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Anandibai Gopalrao Joshi

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- At a time when the British ruled India, Anandibai Gopalrao Joshi became India’s first woman doctor.
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- Joshi was born as Yamuna in Kalyan (in present-day Maharashtra) on March

31, 1865.
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- At the age of nine, she was married to Gopalrao Joshi, who renamed her as Anandi.
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- Her husband supported education for women and he encouraged Joshi to pursue education.
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- Anandibai Joshi from India, Kei Okami from Japan, and Tabat M.Islambooly from Ottomon/Syria were students in Woman's Medical College of Pennsylvania.
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- All three were the first woman from their respective countries to obtain a degree in Western medicine.
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A green alternative

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- Scientists at the Indian Space Research Organization (ISRO) have reported progress in the development of an environment-friendly propellant to power satellites and spacecraft.
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- The effort is to replace the conventional hydrazine rocket fuel, a highly toxic and carcinogenic chemical, with a greener propellant for future missions.
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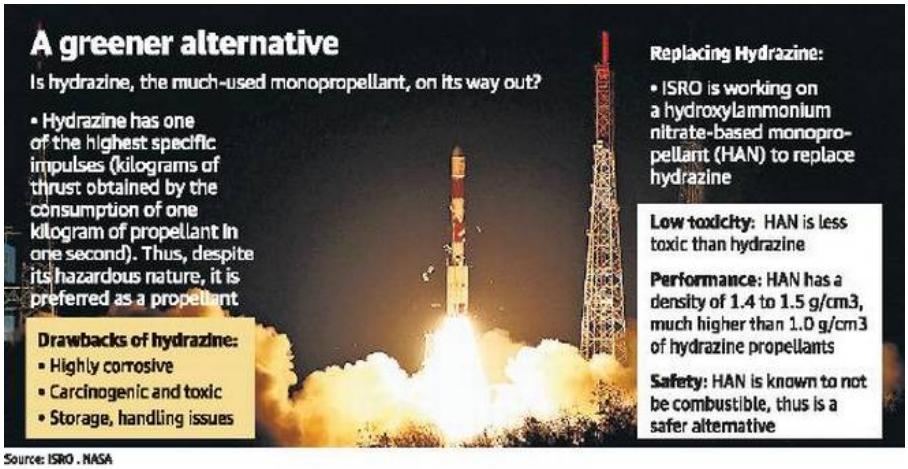

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- Hydrazine is used as space propellant for the past 6 decades despite its environment and health hazards and the challenges faced in its manufacturing, storage, ground handling and transportation.
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- The main reason of it being still used is due to its high performance.
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- The formulation is a HAN based monopropellant and it consists of Hydroxylammonium Nitrate (HAN), ammonium nitrate, methanol and water.
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- A monopropellant is a chemical propulsion fuel which does not require a separate oxidizer.
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- It is used extensively in satellite thrusters for orbital correction and orientation control.
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Petcoke

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- Government of India is planning to propose a ban over burning petroleum coke as a fuel nationwide to comply with a Supreme Court request.
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- It is seen as a part of a long-running case to clean the country's air.
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- Petroleum coke or petcoke is an oil refinery by-product.
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- It is used as a fuel because of its higher energy content than coal.
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- It releases larger amounts of carbon dioxide and sulphur dioxide, which can cause lung disease and acid rain.
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- Government may allow petcoke to be used in the limestone and cement industries.
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- More than half of India's petcoke demand of 27 million tones is imported, mostly from the United States.
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- India is the world's biggest consumer of petcoke.
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Sleep Paralysis

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- The prevalence of sleep paralysis in India is unknown, as sleep medicine is an under-researched faculty in India.
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- Sleep paralysis is defined as a disturbing temporary inability to perform voluntary movements at sleep-wake transitions.
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- Despite being awake and conscious of the sleeping environment, it is impossible for subjects to move their limbs or even open their eyes.
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- Sleep paralysis is thought to occur due to a Rapid Eye Movement -intrusion into wakefulness, i.e. the body is still in REM sleep, while the brain has woken up.
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- REM sleep is the stage in which dreams occur which is characterized by a complete paralysis of the voluntary muscles of the body.
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- This prevalence appears to be higher among students, and those with psychiatric illness.
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Kangara fort

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- The Kangara fort is located on a steep hill about 20 km from Dharamsala in Himachal Pradesh.
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- It occupies a narrow strip of land between the the Banganga and Majhi river.
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- The kot (fort) was earlier called Nagarkot or fort of the city or Kot Kangra.
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- It was built by the royal Rajput family of Kangra State (the Katoch dynasty).
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- The highest point in the fort is occupied by the palace courtyard.
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- Below the palace courtyard there is a large courtyard containing the stone carved temples of Laxmi Narayan, Ambika Devi and the Jain Temple.
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Source: PIB, The Hindu, Business Standard

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