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Kakrapar Atomic Power Plant

- Kakrapar Atomic Power Plant is the country's first 700 MWe (megawatt electric) unit, located in Gujarat.
- It is the biggest indigenously developed variant of the Pressurized Heavy Water Reactor (PHWR).
- The operationalization of India's first 700MWe reactor marks a significant scale-up in technology.
- It has recently achieved its criticality, which is a landmark event in India's domestic civilian nuclear programme.
- It is significant in terms of optimization of its PHWR design.
- It addresses the issue of excess thermal margins and an improvement in the economies of scale, without significant changes to the design of the 540 MWe reactor.
- 'Thermal margin' refers to the extent to which the operating temperature of the reactor is below its maximum operating temperature.
- The 700MWe capacity would constitute the biggest component of the expansion plan of India to ramp up its existing nuclear power capacity of 6,780 MWe to 22,480 MWe by 2031.

Criticality

- The normal operating condition of a reactor, in which nuclear fuel sustains a fission chain reaction.
- A reactor achieves criticality when each fission event releases a sufficient number of neutrons to sustain an ongoing series of reactions.

Report on Immunization among Children

- National Statistical Office (NSO) released a report on immunization among children.
- The survey was conducted during July 2017-June 2018.

Highlights of the report -

i. Around 60% of children under five years of age were fully immunized.
ii. This includes about 59% of boys and 60% of girls across the country who had been fully immunized with all eight prescribed vaccinations (BCG, OPV- 1,

2,3, DPT- 1,2,3 and measles).

iii. In rural India (58%) and Urban (62%) were fully immunized.
iv. Majority of the children received vaccination from government hospitals or clinics.

YuWaah

- UNICEF had launched Generation Unlimited India (YuWaah) in 2019.
- It is a multi-stakeholder alliance which aims to facilitate youth to gain relevant skills for productive lives and the future of work.
- The target age group includes adolescent girls and boys.
- Its key mission is to promote among youth foundational skills, life skills and flexible learning and identifying and scaling impactful delivery models.
- Union Ministry of Youth Affairs has recently signed a Statement of Intent with YuWaah.
- The partnership aims to promote volunteerism among the youth of India as well as to help them transition from education and learning to productive work, skilling and being active citizens.

Bubonic plague

- Bubonic plague is a rare but serious zoonotic disease.
- It is caused by bacterial infection and transmitted by fleas from rodents.
- It mainly results from the bite of an infected flea, and also from exposure to the body fluids from a dead plague-infected animal.
- There are no reports of human to human transmission of bubonic plague.
- It is one of the three plagues caused by bacterium Yersinia pestis.
- The other two being Septicaemic plague and Pneumonic plague.
- According to the WHO it can kill an adult in less than 24 hours, if not treated in time.
- Vaccine for the bubonic plague is available for individuals with high exposure to the plague.
- Recently a city in northern China sounded an alert after a suspected case of bubonic plague or ‘Black Death’ was reported.

Venus Coronae

- Researchers have recently studied the formation of Venus’ ring-shaped volcanic structures called “Coronae”.
- They are formed by plumes of molten rock rising from the mantle up through the crust.
- This process is similar to how Earth’s volcanos function.
- Interestingly, most of Earth’s volcanism occurs along the boundaries of

tectonic plates, but modern Venus doesn't seem to possess tectonic plates.

- They identified three dozen features on Venus, which they state could have been created by volcanism.
- If this is true then it will potentially reshape our understanding about the planet and its evolution.
- Venus was earlier determined to be an inactive planet. However, now it is being said that the interior is still churning and can feed many active volcanoes.

Vriksharopan Abhiyan

- "Vriksharopan Abhiyan" is a campaign orgainsed by the Ministry of Coal.
- It is a part of going green Initiative of Ministry of Coal.
- Under this initiative, large scale plantation will be carried out in colonies, offices, and mines and in other suitable areas of coal and Ignite PSUs.
- Seedlings will also be distributed under the campaign in the nearby areas for promoting plantation by society.
- It invloves all coal and lignite PSUs.
- Under this initiative six eco-parks were inaugurated by Home Ministry, it will provide avenues for the adventure, water sport, recreation, bird watching, etc.
- Going Green initiative involves maximization of green cover through ecological reclamation of the mined-out areas and overburden dumps, avenue plantation at suitable places, and plantation in and around the mines.

Source: PIB, Times of India, Indian Express

SHANKAR IAS PARLIAMENT
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