Prelim Bits 30-03-2018

Smart India Hackathon-2018

\n\n

\n
- Smart India Hackathon 2018 is a non-stop digital product development competition, where problems are posed to technology students for innovative solutions.
\n
- Smart India Hackathon (SIH) – 2018 is organized by All India Council for Technical Education (AICTE) under the aegis of Ministry of Human Resource Development (MHRD).
\n
- In the finale the teams would build innovative digital solutions for problems on different areas of Official Statistics identified by Ministry of Statistics and Program Implementation.
\n
- The event will
\n

\n\n

\n
1. Harnesses creativity & expertise of students
\n
2. Spark institute-level hackathons
\n
3. Build funnel for ‘Startup India’ campaign
\n
4. Crowdsource solutions for improving governance and quality of life
\n
5. Provide opportunity to citizens to provide innovative solutions to India’s daunting problems
\n

\n\n

\n
- It is the second massive scale hackathon initiative following the last year’s event.
\n

- SIH 2018 will have 2 sub-editions – Software as well as Hardware:
\n

\n\n

\n
1. Software Edition will be 36 hour software product development competition.
\n
2. The new Hardware Edition will be a hackathon where teams will be work for 5 straight days and build their hardware solutions.
\n

\n\n

\n
- SIH 2017 had only software edition and hardware edition is a new addition to this year event, which will be held later.
\n

\n\n

Lonar Crater

\n\n

\n
- Around 50,000 years ago, a meteorite about 50 to 60 km in diameter hit the ground in the Lonar region creating a crater.
\n
- Lonar is in Buldana district in Maharashtra.
\n
- The site was discovered by a Britisher, C. J. E. Alexander in 1823.
\n
- Lonar crater is unique because it’s the world’s only high-velocity meteor crater in hard basalt.
\n

\n\n



\n\n

\n
- It is an impact crater or meteorite crater which is a bowl-shaped depression with a raised rim, formed by the impact of a meteoroid.
\n
- Crater can be volcanic in origin too.
\n
- The Lonar Lake formed in this depression is remarkable because its water is

both **saline and alkaline.**
\n

\n\n

Komodo dragon

\n\n

\n
- Komodo dragons are the largest, heaviest lizards in the world and one of the few with a venomous bite.
\n
- The lizards prey on dogs, pigs, goats and other animals.
\n
- Komodo dragons are limited to a few Indonesian islands of the Lesser Sunda group including Rintja, Padar and Flores, and **island of Komodo.**
\n
- Acoording to IUCN, the species is in vulnerable category.
\n

\n\n

GSAT-6A Satellite

\n\n

\n
- India's Geosynchronous Satellite Launch Vehicle (GSLV-F08) successfully launched GSAT-6A Satellite into Geosynchronous Transfer Orbit (GTO).
\n
- A geosynchronous orbit is a high Earth orbit that allows satellites to match Earth's rotation.
\n
- A spacecraft is first launched into an elliptical orbit called Geosynchronous Transfer Orbit (GTO) to attain geosynchronous (and also geostationary) Earth orbits later.
\n
- GSAT-6A is a communication satellite built by ISRO to provide mobile communication services through multi beam coverage.
\n
- It is equipped with S and C band transponders.
\n

\n\n



\n\n

\n
- A transponder is a device that receives and transmits radio signals at a prescribed frequency range.
\n

\n\n

Transiting Exoplanet Survey Satellite

\n\n

\n
- The Transiting Exoplanet Survey Satellite (TESS) is an Explorer-class planet finder by NASA.
\n
- The principal goal of the TESS mission is to detect small planets with bright host stars in the solar neighborhood
\n

\n\n

\n\n

\n
- The spacecraft will be launched aboard a SpaceX Falcon 9 rocket from Cape Canaveral Air Force Station in Florida.
\n
- The spacecraft will be looking for a phenomenon known as a transit, where a planet passes in front of its star, causing a periodic and regular dip in the star’s brightness.
\n

\n\n

Map of the day

\n\n

\n

\n\n

World Volcanoes

\n\n

\n\n

\n

\n

- A stratovolcano (or composite volcano) is a conical volcano consisting of layers of solid lava flows mixed with layers of other rock.
  \n
- Examples of Strato volcano Mt Vesuvius, Mt Krakatau, Mt Rainier, Mt Etna, Mt Fuji, Mt Cotopaxi, Mt Peele, Mt Kilimanjaro
  \n
- A cinder cone volcano doesn’t have any horizontal layers, and is instead a steep conical hill of tephra (volcanic debris) that accumulates around and downwind from the vent.
  \n
- Mt Paricutin in Mexico and Mount Nuovo in Italy are the best examples of cinder cone volcanoes.
  \n
- A shield volcano is entirely or mostly composed of fluid lava vents.
  \n

\n\n

Example- Mauna kea (Hawaii)

\n\n

\n\n

Source: PIB, The Hindu, Business Standard

\n

