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# SCIENCE AND TECHNOLOGY CURRENT AFFAIRS – MAY 2018

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## WORLD'S FIRST 3D-PRINTED HUMAN CORNEAS:

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- Scientists from Newcastle University, UK have come up with an invention which could potentially be a solution for the shortage of eye donors with the development of 3D printed corneas.
- A bio ink solution with an ingredient of healthy corneal stem mixed with alginate and collagen was used for producing this. The combination helps in keeping the corneal stem cells alive and in the production of material with necessary dimensions.

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## DISCOVERY OF RUTHENIUM:

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- Scientists from University of Minnesota, US unearthed a chemical element named Ruthenium(Ru) which could be the fourth element having a distinct magnetic property.

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## WORLD THYROID AWARENESS DAY:

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- World Thyroid Awareness Day is observed on May 25 every year (first observed in 2009) with a motto of controlling Hypothyroidism.

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## OUMUAMUA:

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- An asteroid named 'Oumuamua', alias (514107)2015 BZ509 nestling in Jupiter's orbit was discovered. It seems to have migrated from another solar system.
- This discovery seems to have confirmed the speculations by scientists that asteroids from other stars could have landed in our solar system.

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## GRACE-FO:

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- Twin satellites named GRACE-FO(Follow-On) was launched by Elon Musk led SpaceX with a mission to track the Earth's water cycle, water movement and ice melt.
- It was sent to space from Vandenberg Air Force Base in California, US by means of SpaceX's preflown Falcon 9 Rocket.
- Grace-Fo is a project of NASA in partnership with German Research Center for Geosciences(GFZ).

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## QUEQIAO:

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- Queqiao(Magpie Bridge) is a relay satellite launched by China for building a communication link between earth and its proposed Chang'e-4 lunar probe,which will explore the other side(dark side) of moon.
- It will help in the communications relaying for Change-4 rover's future exploration in South Pole-Aitken Bas..
- It was sent to space by the application of Long March-4C rocket as a part of Chinese Lunar Exploration Programme.

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### FLOATING NUCLEAR POWER PLANT:

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- The world's First floating nuclear power station named 'Lomonosov' was operated at the port city of Murmansk Akademik by Russia.
- It was constructed by Rosatom, which is a Russian state nuclear firm.
- Lomonosov is 144 metres in length and 30 metres in width.It has a capacity to carry 21,500 tones of weight and has a crew of 69 people.

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### MICROHYLA KODIAL:

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- A new frog species was discovered in a small industrial region in coastal Karnataka. Its name is Microhyla Kodial and is locally referred as Mangaluru narrow-mouthed frog.
- It is 2 cm in length, greyish brown in color with an olive-green band on its head and a little bit of dark green band on rest of its body.

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### ARSENIC SENSOR AND REMOVAL MEDIA:

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- A device for the application of detection and removal of arsenic content from water was designed by the Indian Institute of Science Education and Research(IISER) in collaboration with a private company.
- It can detect soluble arsenic which is difficult to sense and remove.

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### BANGABANDHU-1 SATELLITE:

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- Bangabandhu-1, which is incidentally Bangladesh's first communication satellite will be sent to space from Kennedy Space Center onboard SpaceX's Falcon 9 rocket.
- It has a capacity of 1600 MHZ by means 40 Ku and C-band transponders and has an estimated life span of 15 years.

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### GOOGLE LAUNCHES ANDROID THINGS FOR IOT PLATFORM:

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- A variant of Android operating system for Internet of things (IoT) devices such as smart home applications and other smart machines was launched Google, codenamed as 'Brillo'.

- It was designed with an aim of enabling IoT machine developers to be built in manner which is prompt, cheap and more secure.

### MOGANITE:

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- Moganite is a crystal of SiO<sub>2</sub>, which usually gets formed in earth under precise condition of sedimentary settings from alkaline fluids.
- It was spotted in a desert in northwest Africa by scientists from Tohoku University, Japan.
- The discovery of Moganite is a significant step in the detection of hidden ice under the surface of Moon.

### GRAVITY RAT:

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- Gravity Rat is a malware supposedly designed by Pakistani Hackers, which was detected by Maharashtra's Cyber-crime officials.
- This Malware is designed in such a manner to create a long term damage in a system, by being in a hidden state and penetrating deeper.
- Unlike other malware, it is difficult to detect this malware and once it enters a system, it is difficult to ascertain what exactly is leaked by this malware from the system.

### APSTAR:

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- APSTAR-6C is a new communication satellite sent into orbit by China from Xichan satellite launch center by application of March-3B carrier rocket.
- It is one of the four operational satellites belonging to Hong Kong based APT Satellite Co. Ltd..
- Its major functions include providing high power transponder services for video distribution, broadband, internet service and cellular backhaul.

### INSIGHT:

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- Insight( Interior Exploration using Seismic Investigations, Geodesy and Heat Transport) was launched on May,5,2018 by NASA from Vandenberg Air Force Base in California by the application of United Launch Alliance(ULA) Atlas rocket.
- Insight mission is the first mission of NASA after its Apollo moon landings wherein seismometer (quake measuring device) is placed on another planet.
- A technology experiment of NASA, consisting of two mini spacecrafts named Mars Cube One(MarCO) were also launched along with this mission.