Prelim Bits 20-07-2021 | UPSC Daily Current Affairs

Monkey B Virus

- China has reported its first human infection with Monkey B Virus (BV) and subsequent death.
- Initially isolated in 1932, Monkey BV is an alphaherpesvirus enzootic in macaques. B virus is the only identified old-world-monkey herpesvirus that displays severe pathogenicity in humans.
- **Transmission** - Macaque monkeys commonly have this virus, and it can be found in their saliva, feces, urine, or brain or spinal cord tissue.
- The virus may also be found in cells coming from an infected monkey in a lab. B virus can survive for hours on surfaces, particularly when moist.
- **In Humans** - BV is transmitted via direct contact and exchange of bodily fluid secretions of monkeys. The infection has a fatality rate of 70% to 80%.
- BV has a propensity to invade the Central Nervous System when transmitted to humans.
- **Symptoms** - The initial symptoms usually develop around 1-3 weeks after exposure to the virus.
- The first indications of B virus infection are typically flu-like symptoms, following which an infection person may develop small blisters in the wound or area on the body that came in contact with the monkey.
- Some other symptoms of the infection include shortness of breath, nausea and vomiting, abdominal pain and hiccups.
- As the disease progresses, the virus causes inflammation of the brain and spinal cord, leading to neurologic and inflammatory symptoms; issues with muscle coordination; and in extreme cases, death.
- Currently, there are no vaccines that can protect against BV infection.
- **Risk** - The virus might pose threat to laboratory workers, veterinarians, and others who may be exposed to monkeys or their specimens.

Policy on Vintage Vehicles

- The government is framing a new policy to regulate the vintage motor vehicles (2-wheeler or 4-wheeler).
- **Definition** - Currently, the Central Motor Vehicle Rules (CMVR), 1989 do not define what vintage vehicles are.
- The new policy will insert new clauses to bring a standard definition and how

such vehicles cannot be used.
- The term will cover any vehicle, 2-wheeler or 4-wheeler, which is more than 50 years old from the date of first registration after first sale, including any vehicle imported into India.
- **Conditions** - This will be subject to the condition that such vehicles should be maintained in its original form.
- These vehicles should not have undergone any substantial overhaul that includes any modification in chassis or body shell, and/or engine.
- The new policy seeks to mandate that such vehicles cannot be used for commercial purposes or put to regular use. Other than that, the owners can use their vintage cars in any way wish.
- **Registration** - Old vehicles already carry their registration numbers, which will continue.
- For new ones, like imported vintage vehicles or old Indian cars over 50 years old seeking to enter the vintage category, a new numbering system will come into effect.
- These vehicles will carry a registration plate displaying the state code in two letters followed by VA for vintage, then a 2-letter series and finally a 4-digit series (0001 to 9999) allotted by the state registering authority.
- Registration information will be on the Parivahan portal of the Ministry of Road Transport and Highways.
- New vintage vehicles can be registered for Rs. 20,000; re-registration/ renewal will cost Rs 5,000. The registration certificate will be valid for 10 years, renewable thereafter.
- **Sale and purchase** of vehicles registered as vintage is permissible; the buyer and seller have to inform their respective State Transport Authorities.
- **Application of Scrappage Policy** - The upcoming vehicle scrappage policy will not apply to these vehicles.
- If a vehicle is more than 15 years old but within 50 years, the owner can continue to keep it by passing fitness tests every 5 years.

RBI's Data Localisation Policy

- The RBI has banned the U.S. card-issuer Mastercard from issuing new debit and credit cards to customers in India as Mastercard has failed to comply with the RBI's local data storage rules announced in 2018.
- [Data localisation is storing of data on a device physically present within the borders of the country where the data was generated.]
- As per the RBI's rules, foreign card companies had to store complete information about transactions made by all Indian customers in servers located within India.
- This local storage would help the RBI to have unfettered supervisory access.

- In April, 2018, the RBI gave six months time to global payment companies to comply with these rules.
- To know more about RBI's Data Localisation Policy, click here.

Tracking of Tigers

- Major ways of tracking a tiger are radio collars and camera traps. GSM camera traps can also be used, though they are dependent on internet connectivity.
- **Radio collars** are put on tigers for long-term studies of their behaviour, their feeding and movement patterns, etc. For this, a tiger is tranquilised and the collar put around its neck.
- Using the highly sophisticated technology of radio telemetry, officials can get real-time information about its movement.
- **Camera traps** can be used to capture a non-collared tiger. These traps are laid at locations which the tiger is most likely to move past.
- But apart from these places, it keeps moving to scores of other areas where there are no cameras. Thus, only a few locations can be received.
- Also, the cameras are checked only after a gap of 2-12 hours.
- While camera traps do help in identifying the animal, but if more than one tiger is moving around in a given location, this can get tricky.
- **Areas** - Tiger tracking is done both in protected areas (PAs) and non-PAs (generally human-dominated landscapes).
- This is further distinguished into tracking in established and non-established territories.
- Generally, tigers have big territories and hence when they move from one end to the other, another male could even trespass into their territory.
- But there are also tigers that don't have established territories. Their movement is difficult to track.
- Tigresses have small territories, which they guard by continuously patrolling it. So they spend more energy and thus require more food.
- Females in PAs require 10-12% more food than males. The food requirement of females over males goes up by about 24% in human dominated landscapes.
- So, more tigresses than tigers come in conflict with humans.

Pegasus Spyware

- Recently, the Pegasus spyware has evolved from its earlier spear-phishing methods using text links or messages to 'zero-click' attacks which do not require any action from the phone's user.
- [Built and marketed by Israeli company NSO, Pegasus is a spyware that infects devices and spies on the victim by transferring data to a master

server in an unauthorised manner.]

- This had made what was without a doubt the most powerful spyware out there, more potent and almost impossible to detect or stop.
- Once a phone was infiltrated, Pegasus had more control over it than the owner. This is because the spyware gains root-level privileges in a phone.
- Amnesty claims even patched devices with the latest software have been breached.

Zero-click attacks

- **Working** - A zero-click attack helps a spyware gain control over a device without human interaction or human error.
- Most of these attacks exploit software which receive data even before it can determine whether what is coming in is trustworthy or not, like an email client.
- The vulnerability allows remote code execution capabilities and enables an attacker to remotely infect a device by sending emails that consume a significant amount of memory.
- **Prevention** - Zero-click attacks are hard to prevent as it is harder to detect. Detection becomes even harder in encrypted environments where there is no visibility on the data packets being sent or received.
- One of the things users can do is to ensure all software and operating systems are up to date so that they would have the patches for at least vulnerabilities that have been spotted.
- Also, the apps shouldn't be sideloaded and should be to downloaded only via Google Play or Apple's App Store.
- It is even more secure to stop using apps altogether and switch to the browser for checking mails or social media, even on the phone.

Indian Institute of Heritage

- This Institute will be set up by the government at Noida, Gautam Buddha Nagar. This would be a standalone Institution of its type in the country.

- The Institute is being set up as Deemed to be University by integrating,
    - Institute of Archaeology (Pt. Deendayal Upadhyaya Institute of Archaeology),
    - School of Archival Studies under National Archives of India, New Delhi,
    - National Research Laboratory for Conservation of Cultural Property (NRLC), Lucknow,
    - National Museum Institute of History of Art, Conservation and Museology (NMICHM) and
    - Academic Wing of Indira Gandhi National Centre for the Arts (IGNCA),

New Delhi.

- It will be a world-class University that would focus on the conservation and research in India’s rich tangible heritage.
- It will offer research, development and dissemination of knowledge, excellence in the education of its students and activities associated with heritage that contribute to cultural, scientific and economic life of India.

Source: PIB, Hindustan Times, The Indian Express

