Prelim Bits 11-10-17

Compound to destruct cancer cells

- Scientists have discovered a new compound that directly drives cancer cells to commit suicide while sparing healthy cells.
- It paves the way for faster and more efficient treatment of cancer cells.
- The compound which causes the self-destruction of cancer cells is "BTSA1".
- It combats cancer by triggering "Apoptosis", a process that rids the body of malfunctioning cells.

Quasi-Zenith Satellite System

- Quasi-Zenith is a regional terrestrial positioning network system launched by Japan.
- The satellite system consists of 4 satellites which will operate at an altitude of between 33,000 and 39,000 km above the earth in **geosynchronous orbit.**
- Its function is to improve GPS data accuracy for smartphones and vehicle navigation systems and complementary use of GPS.
- Japan recently launched its fourth and final quasi-zenith satellite into orbit.
- These satellites will be to establish communications during a malfunction of traditional networks due to a natural disaster.

Mitra Shakti

- It is India-Sri Lanka joint military exercise.
- It had started in 2012 as a response to China's efforts to increase its influence in South Asia and the Indian Ocean region.
- This year exercise, fifth in the series will be held in Pune.
- The armies of India and Sri Lanka also serve together in the United Nations Peacekeeping missions.

Joint Military Exercises

S. No.	Country	Exercise
1.	Australia	Ex AUSTRA HIND
2.	Bangladesh	Ex SAMPRITI
3.	China	Ex HAND IN HAND
4.	France	Ex SHAKTI
5.	Indonesia	Ex GARUDA SHAKTI
6.	Kazakhstan	Ex PRABAL DOSTYK
7.	Kyrgyzstan	Ex KHANJAR

8.	Maldives	Ex EKUVERIN
9.	Mongolia	Ex NOMADIC ELEPHANT
		Ex KHAN QUEST
10.	Nepal	Ex SURYA KIRAN
11.	Oman	AL NAGAH
12.	Russia	Ex INDRA
13.	Seychelles	Ex LAMITIYE
14.	Singapore	Ex AGNI WARRIOR
		Ex BOLD KURUKHESTRA
15.	Sri Lanka	Ex MITRA SHAKTI
16.	Thailand	Ex MAITREE
		Ex COBRA GOLD
17.	UK	Ex AJEYA WARRIOR
18.	USA	Ex YUDHABHAYAS
		Ex VAJRA PRAHAR

Wind farm

- Wind farm is a group of wind turbines used for producing electricity.
- Turbines need a wind speed **at least 16km/hr**.
- Ideal location-related criteria for wind farm include near-constant flow of non-turbulent wind all year round, minimum likelihood of sudden burst of powerful wind.
- The top 4 wind power countries are **China, US, Germany and India**.
- Recent research has found that wind farms located over open seas can produce five times the amount of energy as compared to the ones situated on land.
- Europe is currently the world leader in offshore wind power, with the first farm (Vindeby) being installed in Denmark in 1991.
- In India, major wind power producing states are Rajasthan, Gujarat, Madhya Pradesh, Maharashtra and Tamil Nadu.
- India's total wind energy output – 28,700 MW.
- India set a new national record producing 3600 MW from new installations in 2016 which helps in attaining 4th largest market country.

International Day of the Girl Child

- Since 2012, 11th October has been marked as the International Day of the Girl, to recognize girls' rights and the unique challenges girls face around the world.
- UNICEF observes the day to spur global attention and action to the challenges and opportunities girls face before, during, and after crises.

IMF's growth projection

- In IMF's recent world economic outlook report, it has raised its projection for economic growth of major economies, but it drastically reduced the growth rate for India.
- It projects that India would grow by 6.7% in 2017 and 7.4% in 2018 which are 0.5 and 0.3 percentage points lower than earlier projections.
- It cited demonetisation and GST as the reason for slower growth.
- At this rate, India will lose the tag of the fastest-growing major economy. China is projected to grow by 6.8 per cent in 2017.

Source: The Hindu, Indian Express.