

STORY OF INDIA'S FIRST NEWSPAPER - 'HICKY'S BENGAL GAZETTE'

Why in News?

World Press Freedom Day is annually commemorated on May 3, in recognition of the importance of journalism in society. Press played an important role in India's independence struggle and Bengal Gazette was the first newspaper ever published in India.

Beginning of Bengal Gazette-

Ireland-born James Augustus Hicky founded Asia's and India's first newspaper "Bengal Gazette" in 1780 as newspapers available then came through ships from America and Europe months after being published. It gained early success because of its novelty, and newsworthy events happening at the time like the British wars against the Americans, the French, the Spanish and the Marathas.

What Stories did it Publish?

The paper initially published local issues and advertisements but with time it started shedding light on government corruption and civic issues, criticizing British East India Company (EIC) and challenging powerful people. For instance, the paper criticized Warren Hastings' expansion policy in sub-continent and described him as Clive's "miserable successor". With the change in the stories published, Hicky changed the paper's title to- 'Open to all Parties but influenced by None'.

Why was it Shut Down?

Due to constant criticism of EIC and its officials, the paper came under the radar of British authorities and was sued for libel around two years into its publication, leading to its closure.

Its Importance in Indian Journalism-

It helped in advancing the growth of journalism in India. Many of Hicky's printing press associates started their own newspapers. Indian papers (like Samachar Darpan, a Bengali weekly started in 1818) were also started to inform the masses in their own languages about the British rule and its criticisms, helping them learn about popular leaders and attach themselves to the anti-colonial movement.

WHAT IS DOLLY RANI V. MANISH KUMAR CHANCHAL (2024) CASE?

Why in News?

In a recent ruling, the Supreme Court observed that a Hindu marriage is a ‘samskara’ or sacrament and must be performed with ceremonies in the proper form to be recognised under the Hindu Marriage Act 1955 (HMA).

What was the Dispute before the SC?

A couple approached the SC with a plea to exercise its plenary powers under **Article 142** of the Constitution to declare their marriage void on the grounds that **no customs or rites** (prescribed under the HMA) were **performed during their marriage**. **Article 142** empowers the apex Court to do “complete justice” between the parties at times where the law or statute may not provide a remedy.

What the SC Ruled in the Dolly Rani v. Manish Kumar Chanchal (2024) Case?

It underscored that **the registration of a Hindu marriage only facilitates proof** of the marriage. **But it does not provide legitimacy** unless rites and ceremonies envisaged under **Section 7 of the HMA** such as the **saptapadi** (the rite where a couple walks around a fire seven times) are complied with.

What are the Marriage Laws in India?

Marriages in India are largely governed by **distinct personal laws**. For instance, the marriages of **Hindus, Christians and Parsis** are regulated by the HMA, the Indian Christian Marriage Act 1872, and the Parsi Marriage and Divorce Act 1936, respectively. **Muslims** on the other hand are governed by uncodified personal laws as well as the Muslim Personal Law (Shariat) Application Act 1937. **In 1954, the Special Marriage Act (SMA)** was enacted to enable couples in interfaith and inter-caste relationships to seek refuge and marry.

How are Divorce, Inheritance and Adoption Governed?

These are governed by a host of other legislations such as **the Hindu Succession Act 1956, the Indian Succession Act 1925 and the Hindu Adoptions and Maintenance Act 1956**.

WHAT IS OXYTOCIN?



Recently, the Delhi High Court called for action against 'rampant use of Oxytocin' in dairy colonies in the national capital.

Oxytocin is also known as the 'love hormone', is a hormone secreted by the **pituitary glands** of mammals during sex, childbirth, lactation or social bonding.

- However, it can also be **chemically manufactured** and is sold by pharma companies for use during childbirth. It is administered either as an injection or a nasal solution.
- The drug was banned by the Central government in April 2018, saying that it was being misused on milch cattle to increase yield, which not only affects the health of the cattle but also humans who consumed the milk.
- **Why is it vital?**
 - It helps contract the uterus and induce delivery, control bleeding and promote the release of breast milk.
 - Its use is especially crucial to prevent new mothers from excessively bleeding after giving birth—a common cause of maternal deaths.

What are hormones?

- They are **chemicals** that **coordinate different functions** in your body by carrying messages through your blood to your organs, muscles and other tissues. These signals tell your body what to do and when to do it.

ETA AQUARIID METEOR



The Eta Aquariid meteor shower, which has been active since April 15, will peak on May 5 and 6.

Eta Aquariid meteor is formed when Earth passes through the **orbital plane of the famous Halley's Comet**, which takes about 76 years to orbit the Sun once. It seems to be originating from the **Aquarius constellation** — hence 'Eta Aquariid'.

- It is known for **its rapid speed**. This makes for long, glowing tails which can last up to several minutes. About 30 to 40 Eta Aquarid meteors can be seen per hour during the peak of the meteor shower, if observed from the Southern Hemisphere.
- The number decreases to about 10 meteors per hour if being viewed in the Northern Hemisphere. This is due to the **location of the “radiant”** — the position in the sky where the meteor shower seems to come from.
 - In the Northern Hemisphere, Eta Aquarid meteors most often appear as **‘Earthgrazers’** — long meteors which appear to skim the surface of the Earth. In the South, however, they can be seen higher up in the sky and hence are more visible.

What are comets?

- These are **frozen leftovers** from the formation of our solar system, some 4.6 billion years ago. They are composed of **dust, rock and ice** and orbit around the Sun in highly elliptical orbits which can, in some cases, take hundreds of thousands of years to complete.
- Billions of them theorised to be orbiting the Sun beyond Neptune, in the Kuiper Belt and even more **distant Oort cloud**. As they come closer to the Sun, comets “heat up and spew gases and dust into a glowing head that can be larger than a planet”. This material also forms a tail which stretches millions of miles.

How are meteor showers related to comets?

- Meteors are simply grains of dust or rock that burn up as **they enter the Earth’s atmosphere**. This burning also creates a brief tail.
- Since most meteors are tiny they completely burn up in Earth’s atmosphere. However, once in a while, a large enough meteor passes through and hits the ground (at which time it is called a meteorite), often causing significant damage.
- A meteor shower can be observed when Earth passes through the clouds of dust left behind in a comet’s orbital plane.

ECONOMIC LOSS DUE TO ORAL CANCER IN INDIA

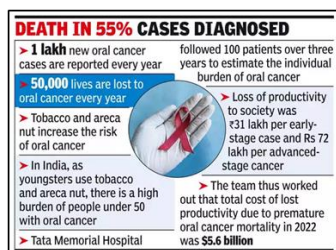
Why in the News?

A new study by Tata Memorial Centre (TMC), a premier cancer treatment and research institute, has estimated that the productivity loss of the country due to oral cancer in year 2022 was approximately \$5.6 Billion.

Background:

- According to the World Health Organization (WHO), India's cancer scenario is burdened with oral cavity cancer being the most common among men.
 - India accounts for almost a third of the global incidence and mortality related to oral cancer.
- Despite strides in oral cancer diagnosis and treatment, escalating healthcare costs strain both providers and patients financially.
- Moreover, these cancers are becoming increasingly common among the younger age groups, in contrast to the western world.
- This can put a significant strain on the productivity of the economy.
- To tackle these issues, Dr Pankaj Chaturvedi, Director, ACTREC, led research to **quantify the economic loss resulting from premature mortality related to oral cancer in India.**

Key Findings of the Study:



- **Years lost**

- The study said that the **671 years were lost to early (29.8%) and advanced cancers (70.2%)**.
- Considering the retirement age in India being 62 years, 91 per cent of the deaths or incurable recurrence of cancers were in the premature age groups. The median age is of 41.5 years.

- **Middle class affected**

- Both early (70 per cent) and advanced (86 per cent) stage cancers were from a middle-class socioeconomic status.
- 53 per cent requiring some form of insurance schemes or financial support in order to complete treatment.
- **Productivity lost**
 - **Productivity lost due to premature mortality among females and males was ₹57,22,803 rupees and ₹71,83,917 rupees, respectively per death.**
 - The amount of money that society lost because of early-stage oral cancer was around ₹31,29,092 rupees for each person affected.
 - For advanced-stage cancer, it was about 71,72,566 rupees per person.
 - Looking at how many people died from oral cancer in the country, the total cost of lost productivity in India in 2022 was about \$5.6 billion.
 - This is about **0.18 percent of all the money the country made that year.**

Significance of the Study:

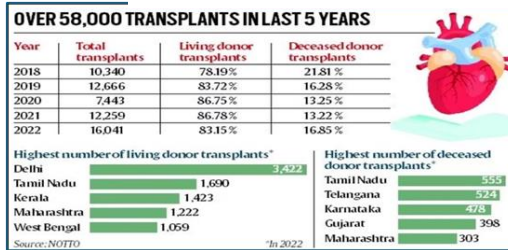
- Oral cancer is caused due to tobacco consumption including smokeless tobacco, betel-quid chewing, excessive alcohol consumption, unhygienic oral condition, and sustained viral infections that include papillomavirus.
- In India, oral cavity cancer has emerged as the most prevalent cancer among men with the country contributing to almost a third of the global incidence and mortality.
- Doctors say that **this study re-emphasizes the need for early screening for the younger age group.**

ORGAN DONATIONS IN INDIA

Organ transplantation in India – Statistics

- According to the NOTTO data, there has been an overall increase in the number of transplants in the country, with a record high of 16,041 such procedures in 2022.
- India has an **organ donation rate of about 0.52 per million population.**

- In comparison, the organ donation rate in Spain, the highest in the world, is 49.6 per million population.



Regulatory frameworks guiding the organ transplantation in India

- **Legislation**

- In 1994, The **Transplantation of Human Organs Act (THOA)** was promulgated by the government of India.

- The **Transplantation of Human Organs Rules** followed in 1995 and were last amended in 2014, increasing the scope of donation and including tissues for transplantation.
- The act made commercialization of organs a punishable offence and legalized the concept of brain death in India allowing deceased donation by obtaining organs from brain stem dead person.

- **Institution**

- **National Organ and Tissue Transplant Organization (NOTTO)** is a national level organization set up under Ministry of Health and Family Welfare.
- Besides laying down policy guidelines and protocols for various functions, it coordinates all the activities associated with organ donation at national level.

- **Organ transplant rules**

- In February 2023 the govt modified national organ transplantation guidelines.
- The new guidelines have done away with the 65-year age limit for registration of patients seeking organs from a deceased donor.
 - There was no age cap for living donor transplants, where family members donate organs like kidneys and livers.
 - However, people over the age of 65 years couldn't register to receive organs from deceased donors as per guidelines of NOTTO.
- It has asked states to remove the domicile criterion for registering those seeking organs from deceased donor for transplant procedures.

WHAT IS C295 TRANSPORT AIRCRAFT?

The Indian Air Force (IAF) recently received delivery of the second of the 56 C295 aircraft.



- It is a new-generation tactical airlifter in the light and medium segment. It was designed and built by Airbus, a European multinational aerospace corporation.
- It is a reliable and highly versatile **tactical transport** that is tailored for missions that range from **carrying troops and cargo, maritime patrol, airborne warning, surveillance and reconnaissance** to signals intelligence, armed close air support, medical evacuation, Air-to-Air refuelling, VIP transport, and airborne firefighting.
- **Features:**
 - The aircraft, with a **flight endurance of up to 13 hours**, can function under all weather conditions.
 - It is capable of **carrying up to nine tonnes** of payload, or as many as **71 troops**, at a maximum cruise speed of 260 kts.
 - The C295 is designed to provide outstanding **low-level flight characteristics for tactical missions**, flying at speeds as slow as 110 knots.
 - The aircraft has a **rear ramp door for quick reaction and paratropping** of troops and cargo. It is powered by two **turboprop engines**.
 - It has **short take-off and landing (STOL) characteristics** and the ability to use unprepared airstrips.
- In September 2021, **India formalised the acquisition of 56 C295 aircraft to replace the legacy Avro fleet of the IAF** at a cost of Rs 21,935 crore.
 - Under the deal, Airbus will deliver the first 16 aircraft in 'fly-away' condition from its final assembly line in Seville by 2025, and the subsequent 40 aircraft will be manufactured and assembled by Tata Advanced Systems (TASL) in India as part of an industrial partnership between the two companies.

WHAT IS A THUNDERSTORM?



Heavy rains and thunderstorms lashed the UAE recently, leading to the cancellation of several international flights.

Thunderstorm is a rain shower during which you hear thunder. Since thunder comes from lightning, **all thunderstorms have lightning.**

- **Formation:**

- Thunderstorms arise when layers of warm, moist air rise in a large, swift updraft to cooler regions of the atmosphere.
- There, the moisture contained in the updraft condenses to form towering cumulonimbus clouds and, eventually, precipitation.
- Columns of cooled air then sink earthward, striking the ground with strong downdrafts and horizontal winds.
- At the same time, electrical charges accumulate on cloud particles (water droplets and ice).
- Lightning discharges occur when the accumulated electric charge becomes sufficiently large.
- Lightning heats the air it passes through so intensely and quickly that shock waves are produced. These shock waves are heard as claps and rolls of thunder.
- On occasion, severe thunderstorms are accompanied by swirling vortices of air that become concentrated and powerful enough to form tornadoes.

What is a severe thunderstorm? A thunderstorm is classified as “severe” when it contains one or more of the following: hail one inch or greater, winds gusting in excess of 50 knots (57.5 mph), or a tornado.

- Thunderstorms are known to occur in almost every region of the world, though they are rare in polar regions and infrequent at latitudes higher than 50° N and 50° S.
- The temperate and tropical regions of the world, therefore, are the most prone to thunderstorms.