

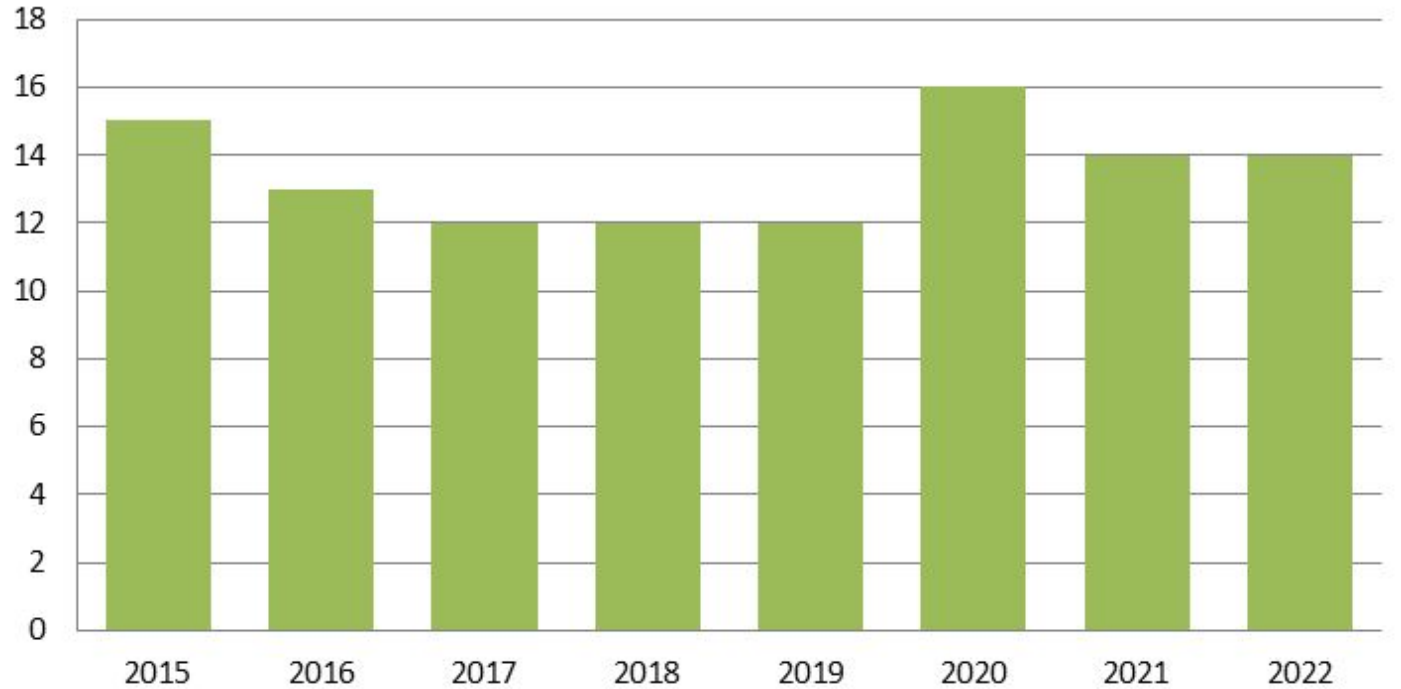
LEARN WITH ENTRI

Science & Technology

THUSHAR ASOK

TREND ANALYSIS

PRELIMS (2015 - 2022)



SYLLABUS

- **General Science**

FOCUS AREAS

- **Space Technology**
- **Biotechnology**
- **Energy**
- **IT & Communication**
- **AI & Robotics**
- **Nanotechnology**
- **Defence**
- **Diseases**
- **General Science**

SPACE TECHNOLOGY

- **Basics**
- **Current Developments**

The experiment will employ a trio of spacecraft flying in formation in the shape of an equilateral triangle that has sides one million kilometres long, with lasers shining between the craft.” The experiment in question refers to

Voyager - 2

New Horizons

LISA Pathfinder

Evolved LISA

BIOTECHNOLOGY

- **Conceptual**
- **Basics**
- **Current Developments**

In the context of recent advances in human reproductive technology, “Pronuclear Transfer” is used for

Fertilization of egg in vitro by the donor sperm

Genetic modification of sperm-producing cells

Development of stem cells into functional embryos

Prevention of mitochondrial diseases in offspring

What is the application of Somatic Cell Nuclear Transfer Technology?

Production of biolarvicides

Manufacture of biodegradable plastics

Reproductive cloning of animals

Production of organisms free of diseases

ENERGY

- Solar
- Wind
- Biofuel
- Hydrogen fuel
- Nuclear energy
- Fuel Cell

IT & COMMUNICATION

- **Current Developments**
- **Themes - LiFi , Visible light communication ,
LTE & VoLTE**

AI & ROBOTICS

- **Current Developments**

NANOTECHNOLOGY

- **Nanomaterials**
- **Application of Nanomaterials**
- **Themes - Graphene , Carbon Nanotubes**

DEFENCE

- **Current developments**
- **Themes - Agni - 4 , INS Astradharini , Fractional Orbital Bombardment System**

DISEASES

- **Current developments**
- **Themes - Hereditary diseases , Zika virus disease , H1N1**

GENERAL SCIENCE

- **Basics**

SOURCES

- **NCERT**
- **Newspaper**
- **Websites - ISRO, NASA**

THINGS TO REMEMBER

- **Static area of current affairs**
- **Major scientific events**
- **Government Initiatives**
- **Layman technologies**
- **Artificial Intelligence**

LEARN WITH ENTRI

THANK YOU