UPSC Daily Current Affairs| Prelimbits 13-08-2025

Ectopic Pregnancy

Prelims – *Current events of national and international importance, General Science*

Why in News?

Recently, a case in Bulandshahr, Uttar Pradesh, left doctors stunned when an MRI scan conducted after a pregnant woman reported revealed that the fetus was developing in her liver.

- An ectopic pregnancy occurs when the fertilised egg implants outside of the uterus, most often in the fallopian tube (connect the ovaries to the uterus).
- If the fertilized egg implants in the fallopian tube it is called ***Tubal pregnancy.***
- Sometimes, the fertilised egg may also attach to the ovary, abdominal cavity, or cervix in ectopic pregnancy.
- These sorts of pregnancies ***cannot proceed normally*** and it cannot support baby growth.

All tubal pregnancies are ectopic, but not all ectopic pregnancies are tubal.

- **Occurrence –** The Movement of the fertilised egg is blocked.
- This could occur due to inflammation or damage of the fallopian tubes due to prior surgeries or infections, or an irregularly-shaped fallopian tube.
- **Symptoms –** It may be similar to those in early pregnancy, such as a missed period, nausea and tenderness of the breasts.
- It includes vaginal bleeding, pain in the lower abdomen, as well as pelvic and back pain, dizziness, pain in the shoulder, discomfort during bowel movements, and low blood pressure.
- The study found that amenorrhea (absence of menstruation) was the most common symptom seen in the cases it analysed.
- On ultrasound, the most common finding was tubo-ovarian mass.
- In the majority of patients studied, the ampullary region in the fallopian tube was the site of the ectopic pregnancy.
- **Risk factors** – Prior ectopic pregnancy, having had certain sexually transmitted infections.
    - Surgery of fallopian tubes
    - A history of smoking,
    - Infertility and fertility treatments,

    - Endometriosis, and having an intrauterine device in place at the time of conception.
    - Advanced age over 35 is also a risk factor.
- **Threat –** This sort of pregnancy cannot proceed normally. It could cause severe internal bleeding, and life-threatening.
- **Prevalence –** The incidence of *ectopic pregnancies in India* has been reported in the range of **0.91 - 2.3%.**
- **Treatment –** It is usually treated with medication or surgery. A common medication used is *Methotrexate,* which stops the fertilised egg from growing and helps dissolve existing cells.
- *Laparoscopic (keyhole) surgery* is usually performed to removing the egg from the fallopian tube, or removing both the egg and the tube.

> ***Ectopic Pregnancy Awareness Day*** *is observed on August 1 to raise awareness about the risks, symptoms, and importance of early detection.*

Reference

The Hindu| Ectopic Pregnancy Causes

Joint Doctrines for Cyberspace Operations & Amphibious Operations

> ***Prelims:*** *Current events of national and international importance*

Why in News?

The Chief of Defence Staff (CDS) has made public India's joint doctrines for cyberspace operations and amphibious Operations that emerge guidance for integrated multi-domain warfare.

> ***Amphibious Operations*** *refer to military actions that are carried out from the sea by naval, air, and land forces to accomplish a mission on land.*

- **Aim -** It outlines a unified approach to defend national cyberspace interests, integrating ***offensive and defensive*** cyber capabilities and enabling synchronized operations *across the three Services.*
- It stresses interoperability, rapid response capability and joint force application to influence operations ashore.
- It has initiated development of numerous new doctrines/primers covering contemporary as well as niche areas of war-fighting such as
    - Military Space Operations,
    - Special Forces Operations,

    - Airborne/Heliborne Operations,
    - Integrated Logistics,
    - Multi Domain Operations.
- **Advantages -** It emphasizes threat-informed planning, resilience building, real-time intelligence integration and development of joint cyber capabilities.
- *Protects critical infrastructure* such as power grids, defense networks, and communication systems from hostile actors.
- *Enhances military operations*' effectiveness by integrating cyber tools with traditional warfare tactics.
- Safeguarding India's maritime interests.
- *Promotes synergy* among the Army, Navy, and Air Force, reducing duplication of efforts.
- *Preparedness for hybrid warfare* by equipping forces to address combined threats involving cyber-attacks, sea control, and land combat.
- *Diplomatic signalling* i.e. communicates India's capability and determination to defend its multi-domain interests to the world.
- **Significance** – It underscores India’s commitment to enhance visibility, accessibility and wider dissemination of joint war-fighting concepts.

Quick Facts

• **Cyberspace** – It is a worldwide domain made up of interconnected information systems, networks, and data infrastructures, which include the internet, intranets, communication satellites, and control systems.
• **Defensive Cyber Operations** – This entails protecting military and national networks from cyber threats like hacking, malware, and data breaches
• **Offensive Cyber Operations** – These concentrates on infiltrating adversary systems to incapacitate communications, disrupt command hierarchies, or impair essential infrastructure.

Reference

PIB| Joint Doctrines for Cyberspace Operations & Amphibious Operations

S.H.I.N.E. (Science, Health and Innovation for Nextgen Explorers) Initiative

Prelims – Current events of national and international importance.

Why in News?

Recently, S.H.I.N.E initiative was organised by the Department of Health Research (DHR) and Indian Council of Medical Research (ICMR), in line with PM call for students to 'spend one day as a scientist'.

- **Aim -** To introduce students to the field of health and biomedical research.

- To ignite ***scientific curiosity, foster innovation*** and inspire the next generation of health researchers.
- It highlights ICMR's contributions to improving the nation's health.
- **Launched in –** 2024.
- **Organized by -** The Department of Health Research (DHR) and The Indian Council of Medical Research (ICMR)
- **Eligibility –** School students from ***9th to 12th grade.***

A total of 13,150 students from over 300 schools across 39 districts in 16 states and union territories participated.

- **Interactive activities –**Guided laboratory tours, research exhibitions, poster walks, video presentations, and live demonstrations of ongoing scientific work.
- The students also had the opportunity to interact with ICMR scientists, gaining insights into their research journeys, areas of expertise, and everyday work in public health.
- **Curated shortfilms -** Students were shown specially curated short films highlighting key ICMR initiatives such as Covaxin, iDRONE, TB elimination, and pandemic preparedness.
- **Mascot for engagement -** To make the experience more engaging, a mascot named Dr. Curio was introduced as a friendly and relatable guide for the students throughout the day.
- **Outreach –** The initiative extends its reach to rural and urban areas, via DHR-Model Rural Health Research Units, ensuring inclusive participation from diverse student backgrounds.

August 8 marked the 104th birth anniversary of Dr. Vulimiri Ramalingaswami, a distinguished Indian medical scientist, pathologist, medical writer, and Director General of ICMR.

- **Significance –** Promoting scientific temper and youth engagement in public research.
- Encouraging students to view science as a career path and understand its societal relevance.

Reference

PIB| SHINE Initiative

Special Development Packages (SDPs) for Assam and Tripura

Prelims: *Current events of national and international importance*

Why in News?

Recently, The Union Cabinet chaired by the Prime Minister has approved 4 new components under the existing Central Sector Scheme of Special Development Packages (SDPs) for Assam and Tripura.

- **Special Development Packages (SDPs)** – It focused on ***regional or community development***, involving financial aid and projects for infrastructure, job creation, and social services.
- **Focus** – Towards the North Eastern States of Assam and Tripura.
- The initiative follows the ***Memoranda of Settlement (MoS)*** signed with various ethnic groups between 2022 and 2024.

> ***Memoranda of Settlement*** *is an agreement among government authorities and ethnic groups, to promote peace, inclusive development, and rehabilitation through infrastructure and socio-economic projects.*

- **Previous MoS-based packages** – These includes (e.g., for Bodo and Karbi groups) have shown positive outcomes in peace-building and development.
- **Approved new components –**State Governments of Assam and Tripura with respective ethnic groups of the concerned state as follows
  - **Adivasi Infrastructure –** Rs.500 crores for development of infrastructure in Adivasi inhabited villages/areas of Assam.
  - **Dimasa community infrastructure** – Rs. 500 crores for development of infrastructure in the North Cacher Hills Autonomous (NCHAC) area of Dimasa National Liberation Army.
  - **Development of ULFA- affected areas** – Rs. 3000 crores for development of infrastructure in the State of Assam.
  - **Development of Tripura**– Rs.250 crores for development of tribals of Tripura.
- **Benefits** – Promote equity by Improving the socio-economic condition of vulnerable & marginalized groups.
  - Provide health services.
  - Promote education and skilling and income through livelihood activities for youth and women.
  - Increase inflow of tourists, thereby creating additional livelihood opportunities.
- **Impacts**
  - Infrastructure & livelihood projects will create employment.
  - The scheme expected to bring stability and mainstream affected communities.

Reference

PIB| Special Development Packages (SDPs) for Assam and Tripura

One Liners 13-08-2025

Polity & Governance

Kartavyam

• It is a nationwide lecture series undertaken in collaboration with 21 universities and institutions.
• **Launched by –** Ministry of Law and Justice.
• **Aim –** To promote a *duty-centric approach* and develop duty jurisprudence within the framework of constitutional and legislative discourse.

Economy

Export Promotion Mission

• **Announced in –** Union Budget 2025-26.
• **Jointly launched by –**
- Ministries of Commerce and Industry, Ministry of Micro, Small and Medium Enterprises.
- Ministry of Finance.
• **Objectives –** To facilitate *improved access to export credit*, enabling cross-border factoring, and assisting MSMEs in *addressing non-tariff barriers* in global markets.
• **2 components**
- NIRYAT PROTSAHAN – Providing Trade Finance Support.
- NIRYAT DISHA – International Holistic Market Access.

NIRYAT DISHA

• **Aim –** To provide support to exporters to help them navigate compliance requirements and deal with regulatory issues.
• **Umbrella scheme –** Export Promotion Mission (EPM)
• **6 programmes –**
- Technical Regulations and Compliance Enablement (TRACE) Focussed Market Access Initiative (FMAI)
- Facilitating Export Logistics and Overseas Warehousing
- Global Outreach for Branding Exports (GLOBE)
- Export Planning and Development for Districts and Clusters
- R&D Support Sub-Scheme for India Centre for Lab Grown Diamond (InCent-LGD) at IIT Madras, Chennai.

Niryat Rin Vikas (NIRVIK)

• It is a proposal for a *separate credit facilitation scheme* for new exporters and Micro, Small and Medium Enterprises (MSMEs).
• **Nodal ministry –** Ministry of Micro, Small & Medium Enterprises.
• **Umbrella scheme -** Niryat Protsahan, Export Promotion Mission (EPM).
• **Objective –** To establish a dynamic and responsive interest equalisation support framework that enables MSMEs to access rupee export credit at globally competitive rates.

Automotive Mission Plan 2047

• It is an industry-led initiative, a strategic roadmap backed by targets for *sector growth, exports, and industry advancement.*
• **Launched by –** Ministry of Heavy Industries & Steel.
• **Aim –** To make the Indian automotive industry globally competitive.
• To integrate the collective vision of stakeholders.
• To address challenges like technological advancements and charging infrastructure.

Security

INS Sandhayak

• It is a *1st indigenous Survey Vessel Large (SVL)* with state-of-the-art hydrography capability.
• **Commissioned in –** 2024, by *Ministry of Defence*.
• **Built by –** Indian Navy's Hydrographic Department framework.
• **Features –** It has full-scale coastal and deep-water surveying capacity and is capable *of search & rescue/humanitarian operations* with onboard helicopter and hospital functions.

Science

Adult Vaccination Centre

• **Adult Vaccination Centre –** It is a facility for providing vaccinations to adults to protect them from preventable infectious diseases.
• **Established in –** 2025, by Ministry of Defence.
• **Aim –** To provide comprehensive immunisation services to all eligible adults, offering vaccines *for Influenza, Pneumococcus, Hepatitis, and other preventable diseases*.

Bronchoscopy Suite

• **Bronchoscopy suite –** It is designed for performing bronchoscopy procedures.
• **Established in –** 2025, by Ministry of Defence.
• **Aim –** To enhance preventive healthcare and advanced diagnostic capabilities for patients.

Maha Abhiyan

The Department of Fertilizers, in collaboration with leading fertilizer companies, has launched a nationwide 'Maha Abhiyan'.
• **Launched by –** Department of Fertilizers, Ministry of Chemicals and Fertilizers.
• **Objectives –** To boost agricultural productivity while *reducing the environmental footprint of conventional fertilizers.*
• To *promote the adoption of Nano DAP* across all 15 agro-climatic zones of the country.
• **Significance –** To commit sustainable agriculture and technological innovation in farming practices.
• Its intentions to *enhance soil health, reduce input costs, and increase farmers' income.*

Vigyan Dhara scheme

• It is a *central sector scheme.*
• **Nodal ministry –** Ministry of Science and Technology.
• **Aim –** To promote capacity building, research, innovation and technology development towards *strengthening the science & technology ecosystem* in the country.
• **Merger of 3 Umbrella schemes –**
- Science and Technology Institutional and Human Capacity Building.
- Research and Development and Innovation.
- Technology Development and Deployment of the Department of Science and Technology.

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