

- **National Programme on AMR Containment:** Started in **12<sup>th</sup> five-year plan (2012-17)**, it focused upon establishing laboratory-based AMR surveillance network, which currently includes 35 state medical college labs in **26 states**.
- **One Health Approach:** In 2015, the 68th World Health Assembly incorporated the concept of **One Health in the fight against AMR** and a Global Action Plan was initiated. All Member countries, including India, agreed to frame their own National Action Plans (NAP) for AMR by 2017.
- **National Action Plan on AMR (2017-2021):** It identified six strategic priorities which include improving awareness and understanding of AMR, strengthening surveillance, optimizing the use of antimicrobial agents and promoting R&D. However, until now, only three states have launched their state action plan in line with NAP-AMR.
- **The National Health Policy 2017:** It called for 'a rapid standardization of guidelines regarding antibiotic use, limiting the use of antibiotics as OTC medications, banning or restricting the use of antibiotics as growth promoters in animal livestock, and pharmacovigilance including prescription audits inclusive of antibiotic usage - in the hospital and community'.

In addition to these, the Indian Council of Medical research (ICMR) has initiated **AntiMicrobial Stewardship Program (AMSP)** to control misuse and overuse of antibiotics in hospital wards and ICUs. In 2018, 328 FDC (Fixed Dose Combination) products of two or more antibiotics were banned by the Central Drugs Standard Control Organization. **The Mission Indradhanush and Swachha Bharat Abhiyan** have also been launched to reduce the number of microbial diseases in the population, thereby reducing the use of antimicrobial drugs.

**13. What is assisted reproductive technology (ART)? Discuss the issues associated with the Assisted Reproductive Technology (Regulation) Act, 2021. (250 words) 15**

**Approach:**

- Start with brief definition of assisted reproductive technology (ART).
- Discuss major issues related to the ART Act, 2021.
- Conclude accordingly.

**Answer:**

As per the **Assisted Reproductive Technology Act, 2021**, the "assisted reproductive technology" means all techniques that attempt to obtain a pregnancy by handling the sperm or the oocyte (egg) outside the human body and transferring the gamete or the embryo into the reproductive system of a woman.

This technology is used to treat infertility. It works by removing eggs from the ovaries. The eggs are then mixed with sperm to make embryos. The embryos are then put back in the parent's body. ART procedures sometimes use donor eggs, donor sperm, or previously frozen embryos. It may also involve a surrogate or gestational carrier.

The **ART (Regulation) Act 2021** was passed by the Indian **Parliament** to provide for the safe and ethical practice of ART services.

The Act **seeks to define ART, regulate the ART clinics and banks, define the rights of a child born through ART**, conditions for gamete donation and supply, etc. However, the provisions of the Act have raised various concerns among the experts.

ART Procedure	Description
In Vitro Fertilization (IVF)	A medical procedure that involves the fertilization of egg and sperm outside of the body.
Gamete Intrafallopian Transfer (GIFT)	A surgical procedure that involves planting unfertilized eggs and sperm into the fallopian tubes.
Zygote Intrafallopian Transfer (ZIFT)	A surgical procedure that involves planting a pre-fertilized egg into the fallopian tubes.
Intracytoplasmic Sperm Injection (ICSI)	Involves an injection of a single sperm into the center of the egg.
Preimplantation Genetic Testing	Tests for eggs with abnormal chromosomes so only the unaffected eggs/embryos are planted in the uterus.
Surrogacy	An arrangement typically with a third party that involves providing the genetic material and/or the gestational role.