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The Analyst

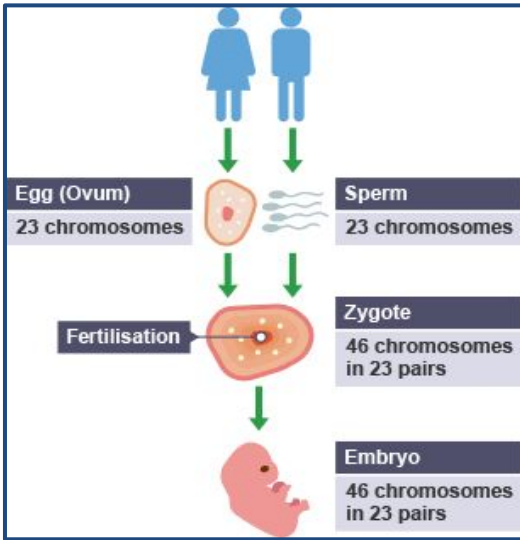
CURRENT AFFAIRS Handout

23rd December 2024



CONTEXT: In light of a recent judgement of a High Court, the editorial highlights several loopholes which exists in the ART Act 2021 & Surrogacy Act 2021

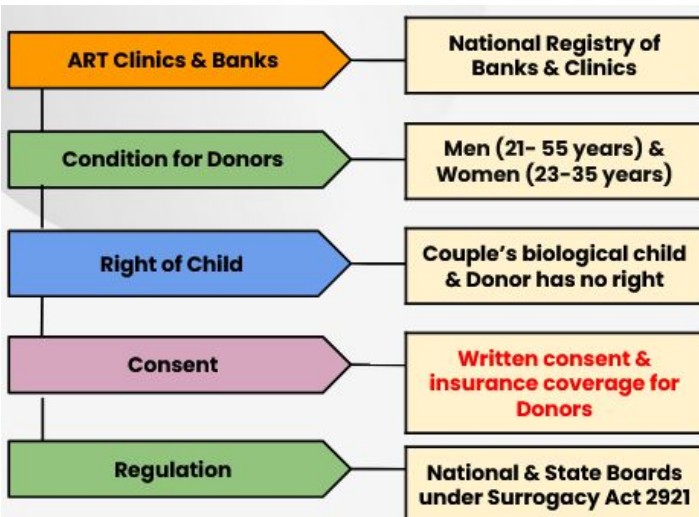
What is Assisted Reproductive Technology?



Types of ART:

| | |
|--|---|
| In - Vitro Fertilisation (IVF) | Sperm are transferred by catheter into Uterus or fallopian tube |
| Gamete Intrafallopian Transfer (GIFT) | Unfertilised eggs & sperms are transferred into fallopian tubes using laparoscopy |
| Intracytoplasmic Sperm injection (ICSI) | Injection of sperms into the eggs |
| Zygote Intrafallopian Transfer (ZIFT) | Zygote or early embryo is transferred into fallopian tube using laparoscopy |

Provisions of the ART Act 2021:



Offences under the Act:

- Abandoning children
- Sale or purchase of embryo
- Transfer of embryo into male or animal
- Imprisonment & fine
- Prohibit advertisement of sex - selective ART

Provisions of the Surrogacy Act 2021:

Provisions

- Only for "Altruistic purposes"
- Couple : Legally married for 5 years
- Men (26-55 years) & Women (25- 50 years)
- Surrogate Mother : 25 - 35 years
- Must not have any Living Child

BATTLE FOR THE WOMB

The Centre says it does not support commercial surrogacy, will make such exploitation of women punishable under the law, and limit the scope of surrogacy to Indian married infertile couples only, not to foreigners

What is commercial surrogacy?

A process by which an individual or couple pays a fee to a woman in exchange for her carrying and delivering a baby. At birth, the child is turned over to the individual or couple, either privately or through a legal adoption process

What is altruistic surrogacy?

A process by which a person bears a child for an infertile woman or couple without any sort of monetary gain in return

What makes India attractive for foreigners seeking a child?

- Cheaper than other countries
- Mushrooming of IVF clinics
- No regulatory framework
- Availability of willing women

Arguments against commercial surrogacy

- Womb seen as a market
- Commercial surrogates are exploited
- There are class divisions and racial divisions between surrogates, egg donors and the intended parents

Countries in which surrogacy is completely banned: Germany, Norway, Italy, Sweden and Singapore

Countries in which only altruistic surrogacy is allowed: Canada, New Zealand, the U.K., Greece, Denmark, some Australian states, the Netherlands



Issues with ART Act & Surrogacy Act

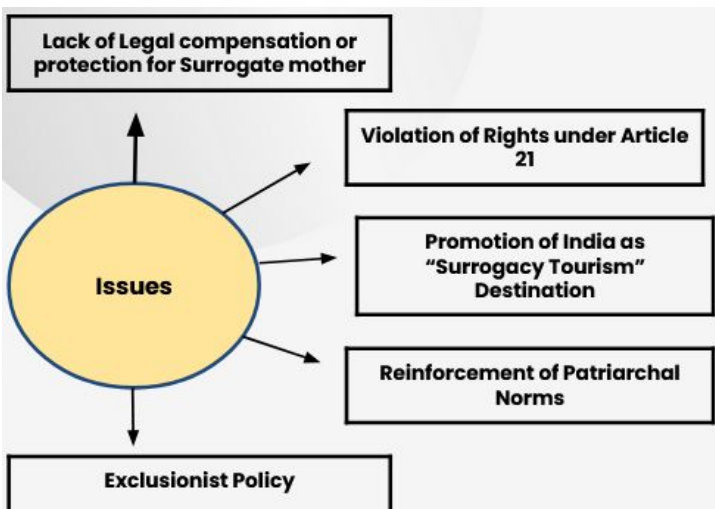
23rd December 2024

CONTEXT: In light of a recent judgement of a High Court, the editorial highlights several loopholes which exists in the ART Act 2021 & Surrogacy Act 2021

What are the *issues* with the Acts?

On October 4, 2024, the Delhi High Court allowed the parents of a dead man to use his frozen semen for posthumous reproduction. The young, unmarried man had preserved his semen sample at a hospital in Delhi while undergoing chemotherapy. He passed away in September 2020. When his parents, his legal heirs, approached the hospital in December 2020 requesting the semen sample to be released, the hospital declined, citing the need for appropriate orders from the High Court. The parents filed a petition with the High Court. The hospital countered that "no laws, including the Assisted Reproductive Technology (ART) (Regulation) Act, 2021, govern the release of frozen semen samples of an unmarried deceased male to his parents or legal heirs." The

- Clause 24 (F) :** Collection of gametes posthumously only if **prior permission of commissioning couple**
- Section 2 (e) :** Only "**infertile married couple**"
- Thus do not specify **unmarried individuals or grandparents**
- Ethical & Legal concerns involved**



Many barriers

The Surrogacy (Regulation) Act, 2021 was introduced to curb unethical practices related to issues such as sex selection and exploitation of surrogate mothers, with provisions for jail term in case of violations

- Under the Act, a couple can opt for surrogacy only on medical grounds and should produce certificates of eligibility
- The couple should have been married for five years and not have a living child
- The surrogate mother

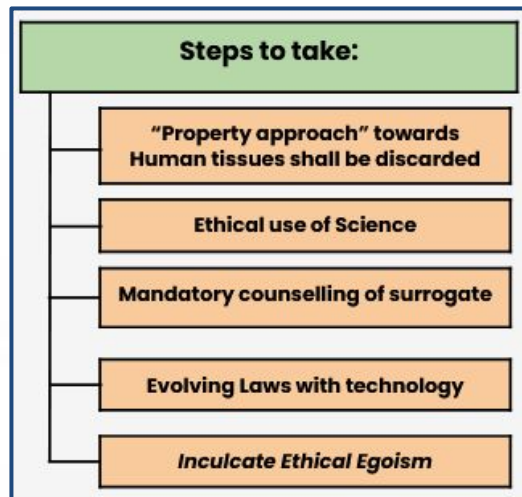
has to be a close relative of the couple, a married woman with a child of her own and aged between 25 and 35

- Though the law allows a single woman to resort to surrogacy, she has to be a widow or a divorcee between the age of 35 and 45
- Single men are not eligible

What can be the *Way Forward?*

No clear guidelines

The Court considered international legal precedents, such as *Doodeward v. Spence and Yearworth v. North Bristol NHS Trust*, while addressing genetic material. These lawsuits have explored the ownership of human biological material and the rights of individuals or families to control it after death. These cases demonstrate the evolving legal views on posthumous gamete retrieval and use. While certain regulations like the EU Directive



Mains Practise Question

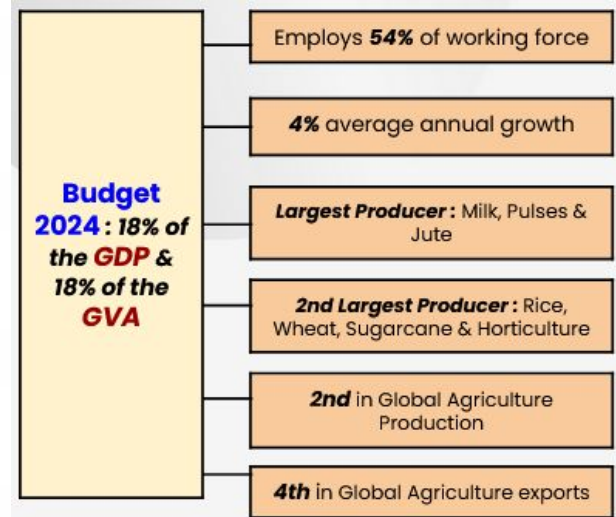
What are the rising concerns with the Assisted Reproductive Technology & Surrogacy in India? Elaborate the Government rules regulating these issues? What can be the ideal way forward? (15 Marks, 250 words)



23rd December 2024

CONTEXT: The article puts focus upon various challenges that are plaguing the farm sector in the country and provide certain innovative suggestions to be adopted

Status of the "Farms" in India:



Issue 1 : Impact of Climate Change:

We know that our production system is being challenged by climate change. In India, temperatures have risen by 0.7 degrees Celsius compared to 1951, and precipitation (July to September) has fallen by 6 per cent. This is increasing the risk to the agri-production basket. Developing climate-resilient agriculture will need more resources for agri-R&D. It is currently less than 0.5 per cent of agri-GDP, and needs to be doubled to at least 1 per cent.

Chart 2: The charts show the number of rainy days for the month of August. The frequency of those days with more than 3 mm of rain dropped by 30% in August, a critical period for crop growth

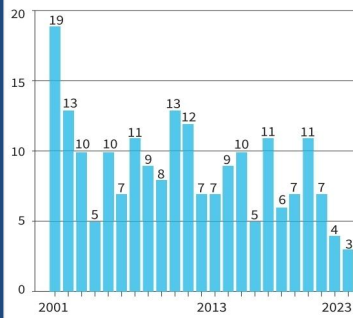
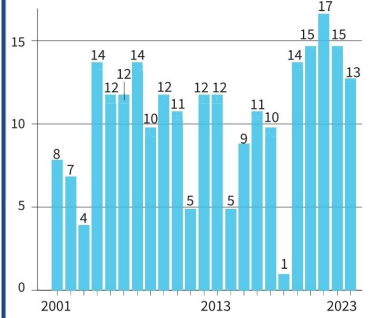


Chart 3: The number of rainy days for the month of September. September had 18% more rainy days, which means that the land is water-logged just as the crops approach harvest



Nurturing 1 : Climate Resilient Agriculture:

National Mission on Natural Farming

Cabinet approves National Mission on Natural Farming (NMNF) as a standalone Centrally Sponsored Scheme under the Ministry of Agriculture & Farmers' Welfare

Salient features

- Need-based 10,000 Bio-input Resource Centres will be set up to provide easy availability and accessibility to ready-to-use natural farming inputs for farmers
- Around 2000 NF Model Demonstration Farms shall be established at Krishi Vigyan Kendras, Agricultural Universities and farmers' fields
- Farmers to be provided easy simple certification system and dedicated common branding to provide access to market for their natural farming produce

National Mission on Natural Farming

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Salient features

- Mission to promote natural farming in mission mode across the country
- Total outlay of Rs.2481 crore (Government of India share - Rs.1584 crore and States' share - Rs.897 crore)
- To be implemented in 15,000 clusters in Gram Panchayats, which are willing, & reach 1 crore farmers and initiate Natural Farming in 7.5 lakh Ha area
- Preference to be given to areas having prevalence of practising NF farmers, SRLM / PACS / FPOs, etc

National Mission on Natural Farming

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Benefits

- Mission aims at promoting natural farming practices for providing safe & nutritious food for all
- Designed to support farmers to reduce input cost of cultivation and dependency to externally purchased inputs
- Will build & maintain healthy soil ecosystems, promote biodiversity and encourage diverse cropping systems

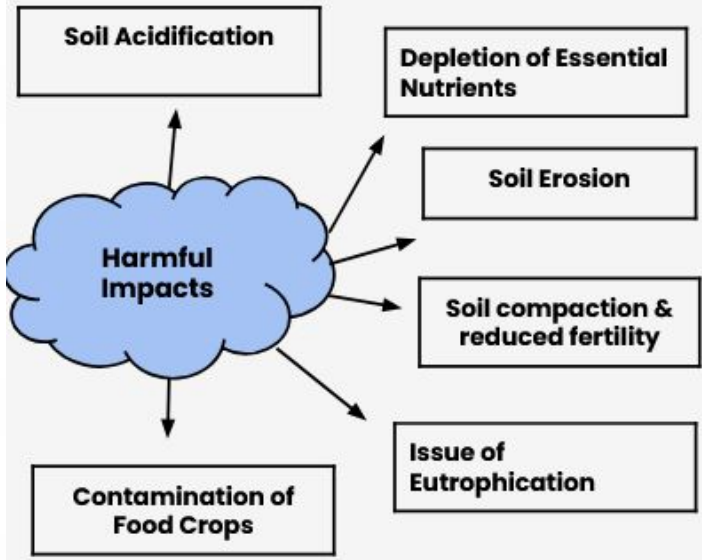
Issue 2 : Poor Soil Health:

Nourishing soils through appropriate fertilisation, be it through biofertilisers or chemical fertilisers, is critical. But fertilisers have to be applied in the right quantities, with the right balance of macronutrients like nitrogen (N), phosphate (P), and potash (K) as well as micronutrients like iron, zinc, boron, etc. The current fertiliser subsidy policy does not promote the right usage of fertilisers. Urea is massively subsidised compared to other nutrients, leading to overuse of N and underuse of P, K, and other micronutrients.

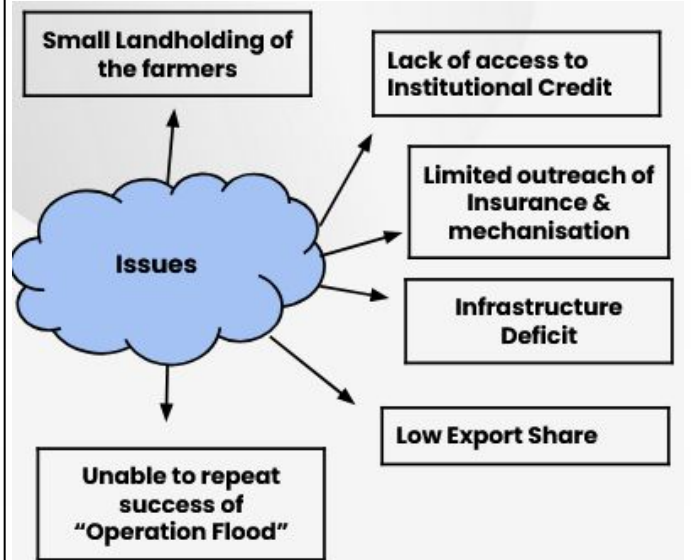


23rd December 2024

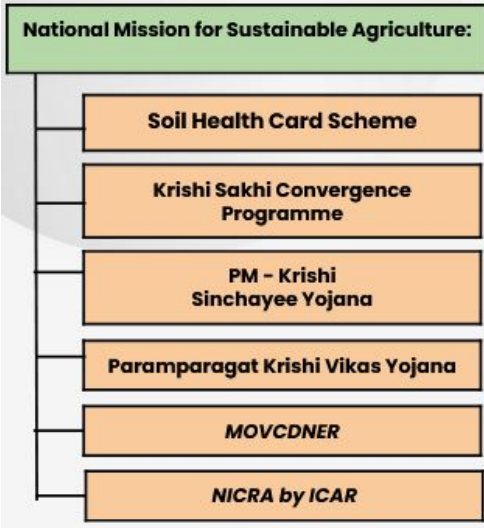
CONTEXT: The article puts focus upon various challenges that are plaguing the farm sector in the country and provide certain innovative suggestions to be adopted



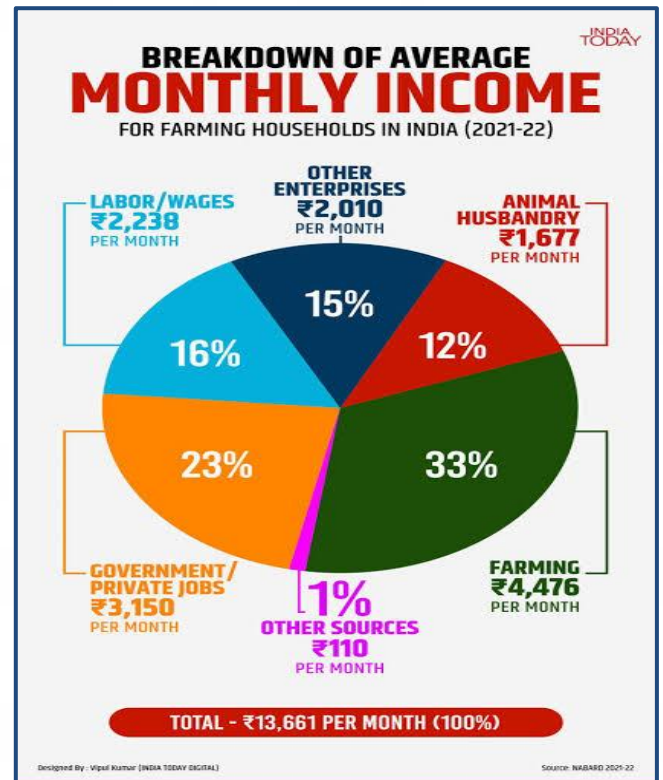
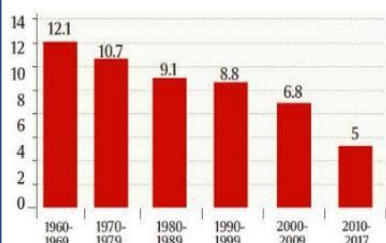
Issue 3 : Poor Supply chain management in Horticulture:



Nurturing 2 : Steps for Soil Conservation:



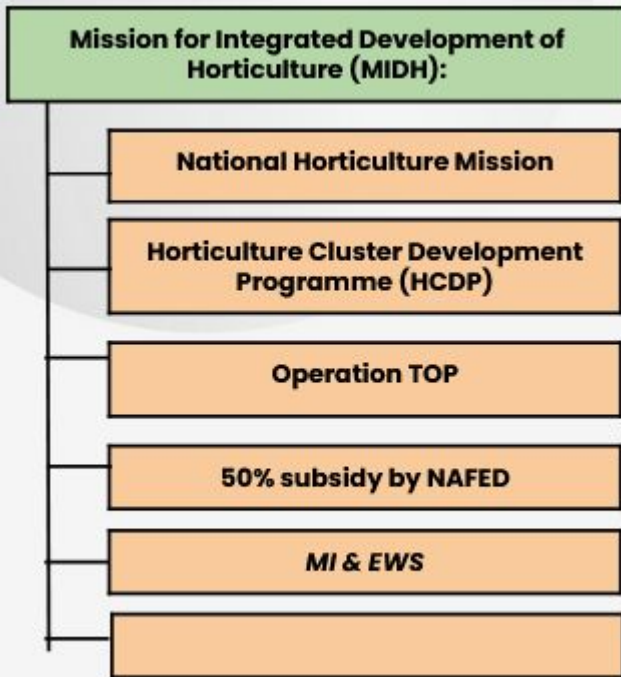
CROP YIELD RESPONSE TO FERTILISERS



23rd December 2024

CONTEXT: The article puts focus upon various challenges that are plaguing the farm sector in the country and provide certain innovative suggestions to be adopted

Nurturing 3 : Steps taken for Horticulture Sector:



Aatmanirbhar Bharat Abhiyan 

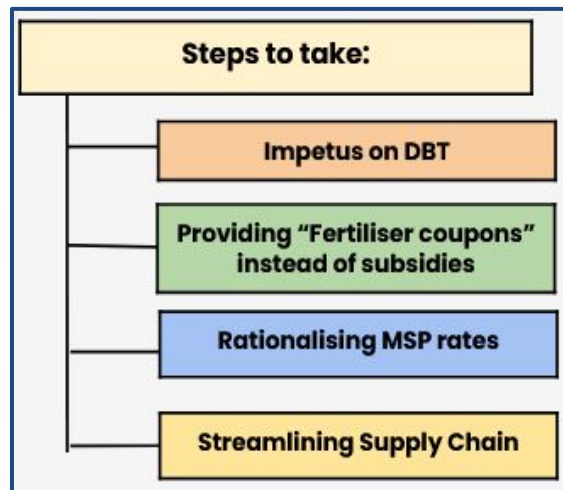
From 'TOP' to TOTAL - Rs 500 crore

- Operation Greens will be extended from Tomatoes, Onion and Potatoes (TOP) to ALL fruits and vegetables (TOTAL).
- Scheme features will be as follows:
 - 50% subsidy on transportation from surplus to deficient markets.
 - 50% subsidy on storage, including cold storages.
- Pilot for 6 months – Will be expanded and extended
- Expected outcomes: Better price realisation to farmers, reduced wastages, affordability of products for consumers



What can be the Way Forward?

cluding loan waivers. In this context, it is useful to look at the OECD's producer support estimates (PSEs) that it generates for more than 50 major countries in the world. They adopt a common methodological framework to estimate the impact of various agricultural policies, mainly budgetary support and market price support. The comparative results may shock some policymakers in India. For the triennium ending 2023, OECD countries supported their agriculture to the tune of about 14 per cent of gross farm receipts (PSE 13.8 per cent). Interestingly, China also supports its agriculture to the tune of 14 per cent (PSE 14 per cent), while India's PSE is negative (-) 15.5 per cent. That happens due to the negative market price support that results from export controls, dumping in the domestic market to push prices down, putting stocking limits on private trade, banning futures markets, and so on. Unless agriculture policies try to get the agri-markets right, Indian agriculture will keep limping and our farmers will keep agitating for higher and higher prices.



Mains Practise Question

What are the emerging challenges that negatively impacts the Farm sector in India? What has been the Government's response to the challenges?
(10 Marks, 150 words)



SYLLABUS: GS Paper 3 : Economy
Newspaper : The Indian Express, Page No : Explained

What is Exchange Rate?

UDIT MISRA
 NEW DELHI, DECEMBER 22

THE INDIAN rupee's exchange rate against the US dollar breached the 85 mark last week. In other words, one would have to pay Rs 85 to buy \$1.

In April, this "exchange rate" was around 83 and a decade ago, when Narendra Modi became prime minister, it was around 61. As such, the rupee has been weakening in value relative to the dollar — this is a long-term trend.

What is the exchange rate?

Within India, we buy goods (such as a pizza or a car) and services (such as a haircut or a hotel stay) using our money, the Indian rupee. But for things from outside the country — say an American-made car or Swiss vacation or indeed, crude oil — we would have to purchase the currency of another country, say the US (dollar) or Swiss currency (euro) using our domestic currency before we buy

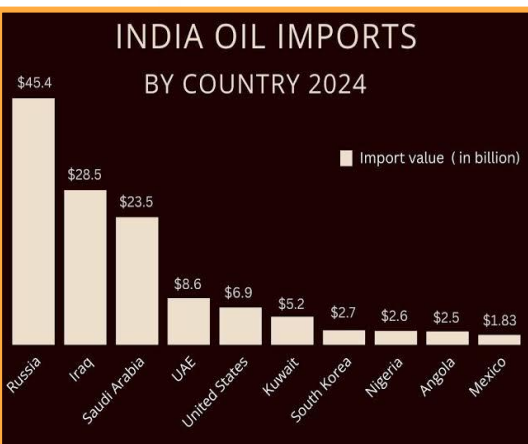
the final item. The rate at which one can swap currencies is the exchange rate. In other words, how many rupees would buy you a dollar or a euro.

In such a market — also referred to as the currency market — each currency is like a commodity itself. The value of each currency relative to another currency is called the exchange rate. These values can stay the same over time but more often than not they keep changing.

What decides it?

Like any other trade in life, the relative value of one currency against another depends on which is demanded more. If Indians demand more US dollars than Americans demand the Indian rupee, the exchange rate will tilt in favour of the US dollar. If this situation keeps repeating every day, such a trend will become stronger and the rupee will keep losing value relative to the US dollar.

This movement will show up in the form of the rupee's exchange rate weakening against the dollar.

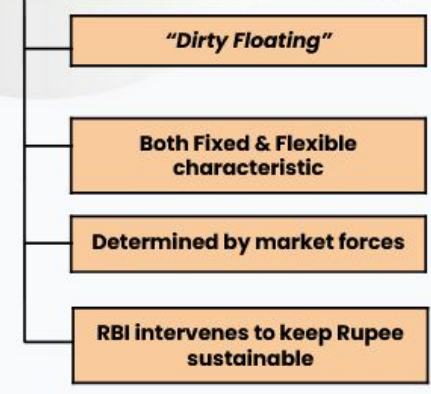


Types of Exchange Rate System:

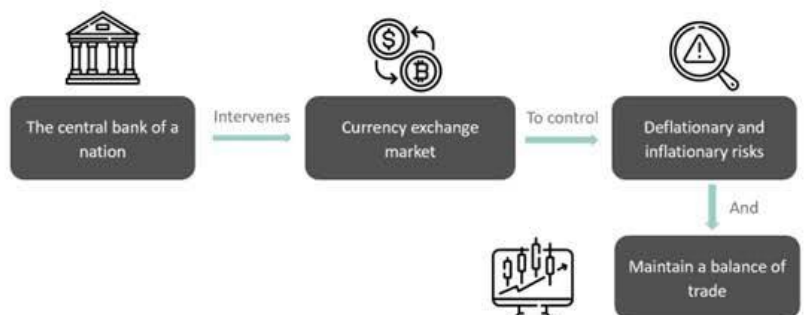
| Basis of Difference | Fixed Exchange Rate | Flexible Exchange Rate |
|---------------------------------------|--|---|
| Determination of Exchange Rate | Officially fixed in terms of gold or any other currency (pegging) | Rate of exchange determined by forces of demand & supply |
| Government Control | Complete Government Control | Fluctuates freely according to market condition |
| Stability | Rate remains mostly stable thus stability in Capital movement | Rates keep on changing |
| Impact on Currency | Currency is devalued | Currency appreciates & depreciates |
| FOREX Reserves | Large FOREX required | No need to maintain FOREX Reserves |
| Impact on BOP | Deficit in BOP | Deficit or Surplus in BOP is automatically corrected |

What Model Applies to India?

Managed Floating Rate System:



What Is Managed Floating Exchange Rate?



SYLLABUS: GS Paper 3 : Economy
Newspaper : The Indian Express, Page No : Explained

Types of Exchange Rate:

$$NEER = \prod_{i=1}^n \left(\frac{S_i}{S_i^*} \right)^{w_i}$$

n = number of countries from the basket
s_i = exchange rate of the national currency against the currency of the country i
s_i^{*} = exchange rate of the national currency against the currency of the country i during the base period
w_i = country's weight (of the currency) in the basket;

$$REER = \prod_{i=1}^n \left(\frac{S_i}{S_i^*} * \frac{P_i}{P_{MD}} \right)^{w_i}$$

n = number of countries from the basket
s_i = exchange rate of the national currency against the currency of the country i
s_i^{*} = exchange rate of the national currency against the currency of the country i during the base period
w_i = country's weight (of the currency) in the basket;
p_i = inflation rate in the country i
p_{MD} = inflation rate in the Republic of Moldova.

Practise Question 2022

2. With reference to the Indian economy, consider the following statements :

1. An increase in Nominal Effective Exchange Rate (NEER) indicates the appreciation of rupee.
2. An increase in the Real Effective Exchange Rate (REER) indicates an improvement in trade competitiveness.
3. An increasing trend in domestic inflation relative to inflation in other countries is likely to cause an increasing divergence between NEER and REER.

Which of the above statements are correct ?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

What factors determine the demand for rupee vis à vis dollar?

Three main factors are at play here.

One big component of demand comes from **trade of goods**. For the sake of simplicity, imagine a world where there are only two countries — India and the US. If India imports more goods from the US than what it exports to the US, then the demand for US dollars will outstrip the demand for Indian rupee. This, in turn, will make the US dollar gain strength

against the rupee, and its exchange rate versus the rupee will appreciate. Put differently, the rupee's exchange rate relative to the dollar will weaken. As a result, more rupees will be required to buy a single US dollar.

The other component is **trade in services**. If Indians buy more US services — say tourism — than Americans buy Indian services, then again, demand for dollars will outstrip the demand for rupee, and rupee will weaken.

Factors that determines Exchange Rate:

What if American invests more in India?

What if USA bans import from India?

What if Inflation declines in USA?



SYLLABUS: GS Paper 3 : Climate Change and Response
Newspaper : The Hindu, Page No : 8

“Cutting down the *Transition Time*”:

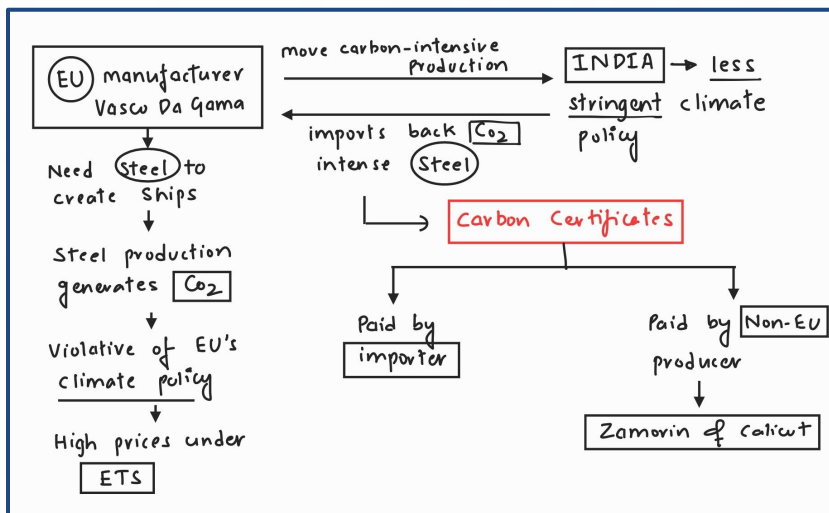
The outcome of the climate conference (COP29) in Azerbaijan has been disappointing. The meeting took place at a time of transition in American politics. While international climate negotiations remain stalemated, nature is moving inexorably towards becoming a hotter planet. The fight against global warming requires reducing emissions. Developed countries have accepted 2050, China 2060, and India 2070 as the deadline for energy transition to net zero emissions by 2070.

There are two developments that will cut short the transition time. The European Union’s (EU) Carbon Border Adjustment Mechanism (CBAM), which will be effective from 2026, will result in penal customs duties on imports unless the carbon tax in exporting countries is hiked to the EU level. The second is increasing pressure to accept the ‘peaking’ of emissions. The G-7 Summit in Hiroshima last year, and Apulia in June 2024, called on the ‘major economies’ to accept the peaking of emissions by 2025. This was a reference to China and India as the EU and the United States have already accepted ‘peaking’.

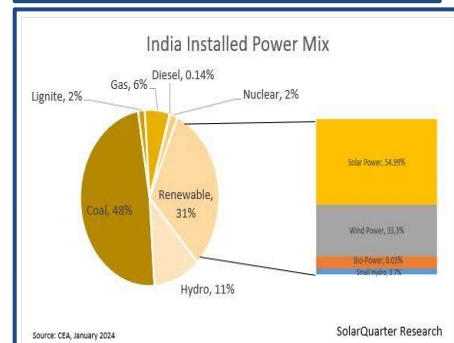
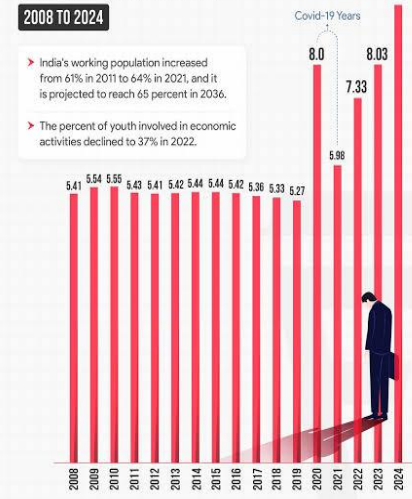
“Challenging road ahead for India”:

The incoming Donald Trump administration may take the U.S. out of the climate agreements again. Regardless of this, we must take action to achieve a clean environment, for our own sake. But we cannot ignore India’s development imperative. We need more electricity to replace fossil fuels. India’s electricity consumption is a third of the global average. While developed countries and China have to diversify to clean energy sources, India has to grow and diversify.

These twin challenges entail much higher costs and require a longer transition time. However, we do not have the luxury of waiting till 2070 as pressure mounts for the ‘peaking’ of emissions. The ‘peaking’ year is an intermediate stage where emissions plateau before declining to the net zero stage. China has accepted the goal of peaking by 2030. India cannot remain an outlier indefinitely. At the most, we may have a decade when our emissions will be capped. A more compressed transition schedule means that we have to depend upon existing technologies. Small modular reactors and hydrogen will take more than a decade to become commercially viable.



UNEMPLOYMENT RATE IN INDIA



SYLLABUS: GS Paper 3 : Climate Change and Response
Newspaper : The Hindu, Page No : 8

“How to reach to **Net Zero Target**”:

PM MODI INTRODUCES INDIA'S 'PANCHAMRIT' AT COP26 IN GLASGOW

- Reach non-fossil energy capacity of **500GW** by 2030
- Fulfill 50% energy requirements via **Renewable Energy** by 2030
- Reduce **1 billion** carbon emissions by 2050
- Reduce carbon intensity **below 45%** by 2030
- India will achieve the target of **Net-Zero** by 2070

Electrification of Transport & Industry

IEA Report : India's Energy demand = 3,400 Terawatt Hours by 2040

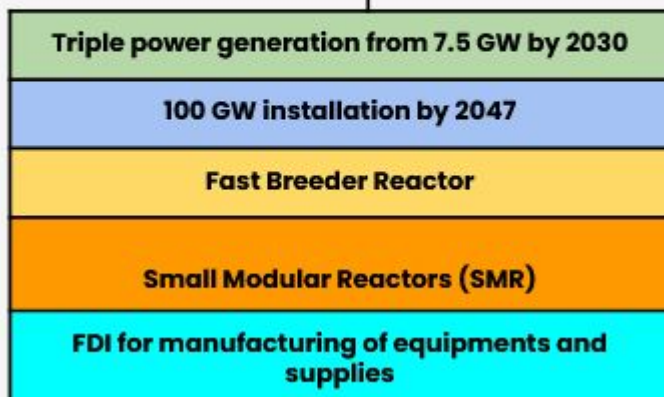
NITI Aayog Data : 6200 TWh electricity consumption in 2020

Estimated = 21000 TWh by 2070

Vouching for Nuclear Energy:

| Dimension | Renewable Energy | Nuclear Energy |
|-----------------------|--|--------------------------------------|
| Cost | ₹ 4.95 - ₹ 7.5 per unit | ₹ 3.8 per unit |
| High Option Cost | \$15.5 Trillion | \$ 11.2 Trillion |
| Land for Installation | 4.12 Lakh Km ² (Total surplus Land = 2 Lakh km ²) | 1.83 Lakh Km² only |

Steps taken for Nuclear Energy : Nuclear Energy Summit, Brussels 2024

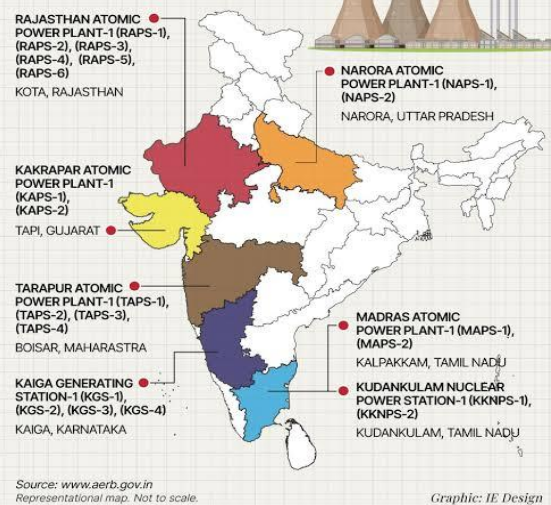


“What shall be the **approach**?”:

On the margins of COP28 in the United Arab Emirates, a group of over 20 countries, including the U.S., France, and Japan have pledged to triple nuclear power by 2050. Nuclear power already provides 20% of electricity generation in the U.S. and 70% in France. Japan joined this group despite the legacy of the Hiroshima and Nagasaki bombings, and the Fukushima accident. In India's case, there is a need for a sharper increase, as the share of nuclear power in generation is as low as 3%.

Ramping up nuclear power requires government support, as resources on this scale cannot be internally generated by the Nuclear Power Corporation of India Limited (NPCIL). Nuclear power also needs to be given the status of green energy as it is emission-free. Besides operationalising existing joint ventures between the NPCIL and public sector units, public-private partnerships with industries in hard-to-abate sectors should be encouraged given the looming EU deadline for enforcing the CBAM. The bulk of the additional demand for generation will have to be met by larger 700 MW-1,000 MW reactors.

Nuclear Power Plants under operation in India

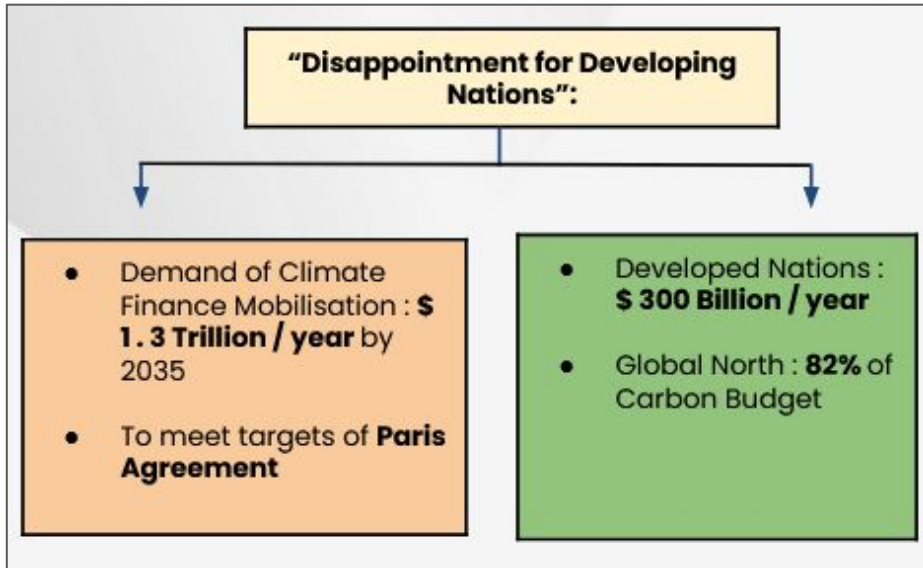


The Global Warming Fight

23rd December 2024

SYLLABUS: GS Paper 3 : Climate Change and Response
Newspaper : The Hindu, Page No : 8

"Issue of *Climate Finance*":



Too little, too distant: India rejects \$300 bn climate finance at COP29



SYLLABUS: GS Paper 2 : Government Policies & Interventions
Newspaper : The Hindu, Page No : 10

What are new "Interception Rules"?

The story so far:

The Union Government, on December 6, notified the **Telecommunications (Procedures and Safeguards for Lawful Interception of Messages) Rules, 2024** which empower some enforcement and security agencies to intercept phone messages under certain conditions. These rules supersede Rule 419A of the Indian Telegraph Rules, 1951.

20. (1) On the occurrence of any public emergency, including disaster management, or in the interest of public safety, the Central Government or a State Government or any officer specially authorised in this behalf by the Central Government or a State Government, if satisfied that it is necessary or expedient so to do, by notification—

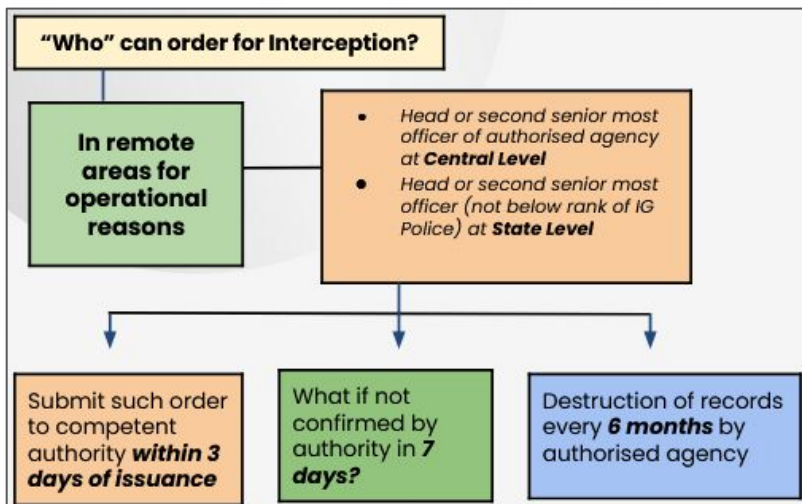
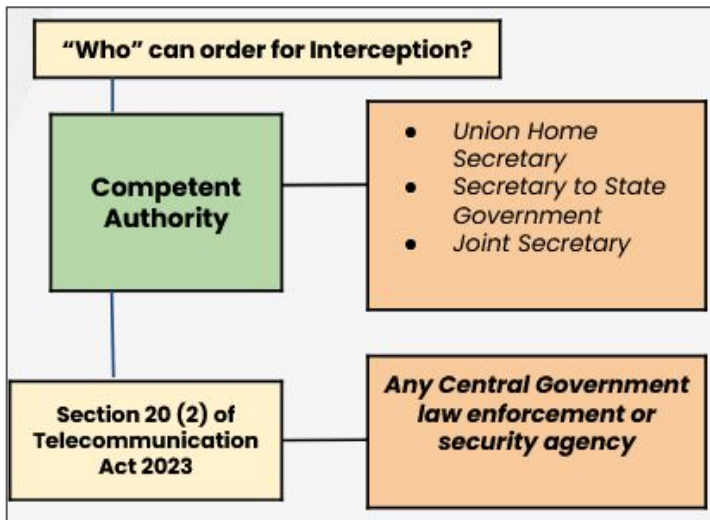
Provisions public emergency public safety

(a) take temporary possession of any telecommunication service or telecommunication network from an authorised entity; or

(b) provide for appropriate mechanism to ensure that messages of a user or group of users authorised for response and recovery during public emergency are routed on priority.

(2) On the occurrence of any public emergency or in the interest of public safety, the Central Government or a State Government or any officer specially authorised in this behalf by the Central Government or a State Government, may, if satisfied that it is necessary or expedient so to do, in the interest of the sovereignty and integrity of India, defence and security of the State, friendly relations with foreign States, public order, or for preventing incitement to the commission of any offence, subject to such procedure and safeguards as may be prescribed, and for reasons to be recorded in writing, by order—

(a) direct that any message or class of messages, to or from any person or class of persons, to or from any telecommunication equipment or class of telecommunication equipment, or relating to any particular subject, brought for



How are the new rules different?

First, the condition of interception by authorised agencies only in 'emergent cases', has been relaxed. Interception by authorised agencies is now possible if it is not feasible for the competent authority to issue orders in 'remote areas or for operational reasons'. Second, under Rule 419A, there was no limit for the number of IGP rank officers at the State level who could be authorised for interception. But now, in addition to the head of the authorised agency, only (one) the second senior most officer can be authorised for interception. Third, in case the interception order by an authorised agency is not confirmed within seven days, any messages intercepted shall not

What are the Issues Involved?

- No accountability for "wilful misuse of power" of interception
- What about abuses of power within 7 days?
- **Indian Telegraph Act 1885** : Precautions to prevent improper interceptions
- **PUCL v. UOI 1996** : Right to Privacy can not be curtailed arbitrarily without laying just safeguards
- **Rule 419 A** added to Telegraph Rules 1951
- **KS Puttaswamy Case 2017**



What is a Speed Gun?

What is a speed gun?

A speed gun is a device to measure the speed of a moving object without having to be in contact with the object. To achieve this, the device bounces electromagnetic radiation of a specific frequency off the object, capturing the reflection and using the Doppler effect to infer the object's speed. Speed guns are electronic, and use complex circuitry to emit the radiation used to make the measurement.

These devices are widely used by law enforcement officials to monitor traffic speed, by coaches to gauge the performance of their athletes, and in various other industries in need of accurate motion tracking.

This is why, when a train moves into a station, people on the platform will hear the horn blowing at a higher pitch than when the train is leaving the station. This effect is the Doppler effect.

The speed gun was originally developed during World War II for military use and applies the effect using radio waves rather than sound waves. A speed gun has a radio transmitter and a receiver. The transmitter emits radio waves, which the person holding the speed gun can direct at an object. The receiver collects the waves reflected by the object back in the direction of the

How are the speed and the effect linked?

All electromagnetic waves have a fixed speed – equal to the speed of light in that medium. In vacuum, this value is denoted c : 299,792,458 m/s. Any change in the frequency the speed gun detects directly corresponds to the Doppler shift caused by the object's motion. This principle is powerful because it allows the speed gun to work accurately over a wide range of distances and velocities without being affected by air resistance.

A speed gun can calculate the speed of a moving object by multiplying the difference (between received and emitted frequencies) with c and dividing by the emitted frequency times 2.

This relationship shows how the difference is directly proportional to the speed of the object: the faster it moves, the more pronounced the difference will be. In other words, the only condition is that the object should be moving much slower than the speed of light – which is the case in most, if not all, practical applications of the speed gun.

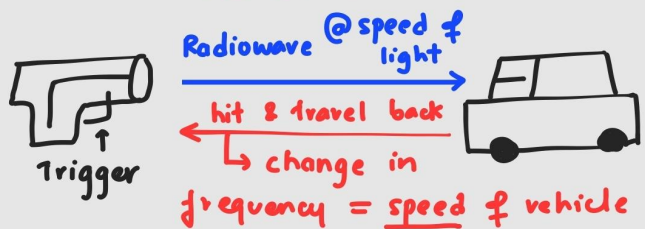
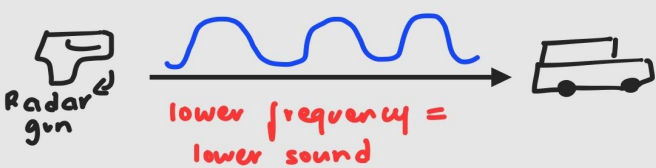
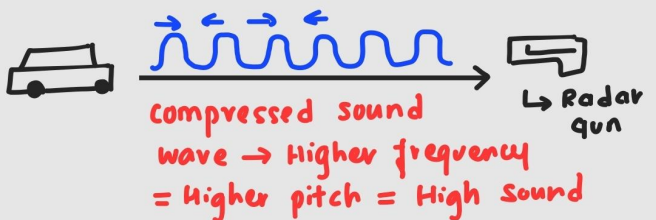
However, radio waves have intrinsic shortcomings that transmitters can't fully adjust for. For example, radio waves diverge as they move through the air. If an antenna is 5 cm long, the waves it emits will diverge by 22° to either side, producing a beam that is 44° wide overall.

Such a beam could strike more than one moving vehicle and produce inaccurate speed readings.

A continuous-wave radar – which emits radio waves and tracks their reflections continuously – may also produce readings due to multiple vehicles.

Engineers have developed systems to compensate for these errors but the resulting setups have been more sophisticated and more expensive.

For such reasons, LIDAR speed guns have been replacing radar counterparts. The name is short for 'light detection and ranging'. LIDAR uses laser light instead of radio waves; the gun's operation is otherwise similar. Laser light has very low divergence and thus offers better targeting.



$$\text{Speed} = \frac{\text{Change in } (f) \text{ of signal}}{f_0} = \frac{\Delta f}{f_0}$$



List of Foreign Honours

23rd December 2024

SYLLABUS: PRELIMS : News of International Importance
Newspaper : The Indian Express, **Page No : 1**

International Awards given to Indian Prime Minister:

| Award | Year | Country |
|--|------|----------------------|
| Order of Abdulaziz Al Saud | 2016 | Saudi Arabia |
| State Order of Ghazi Amir Khan | 2016 | Afghanistan |
| Order of Zayed Award | 2019 | United Arab Emirates |
| Order of St Andrew Award | 2019 | Russia |
| Order of Distinguished rule of Nishan Izzuddin | 2019 | Maldives |
| Ebakal Award | 2023 | Republic of Palau |

| Award | Year | Country |
|---------------------------------|------|------------------|
| Companion Order of Logohu | 2023 | Papua New Guinea |
| Order of Nile | 2023 | Egypt |
| Grand Cross of Legion of Honour | 2023 | France |
| Order of Dragon King | 2024 | Bhutan |
| Grand Commander Order of Niger | 2024 | Nigeria |
| Order of Excellence | 2024 | Guyana |



23rd December 2024

Q1. Consider the following statements regarding the types of Assisted Reproductive Technologies (ART):

1. In Vitro Fertilisation (IVF) involves transferring sperm into the fallopian tube or uterus using a catheter.
2. Zygote Intrafallopian Transfer (ZIFT) transfers a zygote or early embryo into the fallopian tube using laparoscopy.
3. Gamete Intrafallopian Transfer (GIFT) involves injecting sperm directly into an egg in the laboratory.

How many of the statements given above is/are correct?

- a) Only One
- b) Only Two
- c) All Three
- d) None

Answer: b

Q2. Consider the following statements regarding the Indian farm sector:

1. Agriculture employs approximately 54% of India's workforce.
2. India is the largest producer of milk, pulses, and sugarcane globally.
3. Agriculture contributed 18% to the GDP in Budget 2024.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) 1 and 3 only
- d) 1, 2, and 3

Answer: c

Q3. Which of the following statements correctly describes the differences between fixed and flexible exchange rates?

1. A fixed exchange rate is pegged to gold or another currency, while a flexible exchange rate fluctuates based on market conditions.
2. Fixed exchange rates provide complete government control over the exchange rate.

3. Fixed exchange rates do not require maintaining large foreign exchange reserves, unlike flexible exchange rates.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2, and 3

Answer: a

Q4. Which of the following is/are authorised to order the interception of communications in India?

- a) Union Home Secretary
- b) Secretary to the State Government
- c) Joint Secretary in the Central Government
- d) All of the above

Answer: d

Q5. Match the following international awards with their respective countries:

| S. No. | Award Name | Country |
|--------|---------------------------------|-----------|
| a | Order of Nile | 1. France |
| b | Grand Cross of Legion of Honour | 2. Egypt |
| c | Order of Dragon King | 3. Russia |
| d | Order of St. Andrew Award | 4. Bhutan |

Select the correct answer using the codes given below.

- a) a-1, b-2, c-3, d-4
- b) a-1, b-3, c-2, d-4
- c) a-2, b-3, c-4, d-1
- d) a-2, b-1, c-4, d-3

Answer: d





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