

The Analyst

CURRENT AFFAIRS Handout

18th October 2025

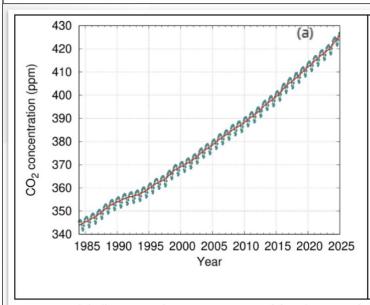


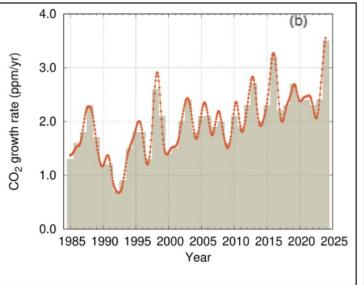
Rising CO₂ levels



CONTEXT: Rising CO₂ Levels — The Alarming Climate Signal (WMO Report 2024)

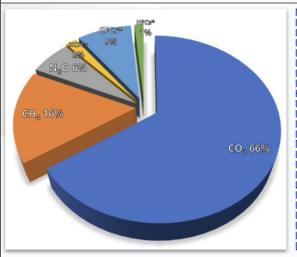
Context/Background





Atmosp CO₂ concentration @ all-time high in 2024

2023–24 rise → 3.5 ppm **Remember**: CO₂ is long-lived (≈ 45% higher decade average!) **2024**: **+1.55°C** above pre-industrial levels.



Gas	Concentr ation (2024)	Change from 2023	Trend (Decade avg.)	Global Warming Potential (100 yrs)
CO ₂	423.9 ppm	+3.5 ppm	+2.4 ppm/ year	1 (baseline)
∜ CH₄ (Methane)	~1924 ppb	+10.6 ppb/ year	+10.6 ppb/ year	28-34× CO ₂
N ₂ O (Nitrous Oxide)	~336 ppb	+1.07 ppb/ year	+1.07 ppb/ year	273× CO ₂

Together, these gases trap more heat in Earth's atmosphere – enhancing the greenhouse effect.



Rising CO₂ levels



CONTEXT: Rising CO₂ Levels — The Alarming Climate Signal (WMO Report 2024)

UPSC PYQ (P) 2020

Which of the following statements best describes the term 'Social Cost of Carbon'

It is a measure, in monetary value, of the

- a) Long-term damage done by a tonne of CO2 emissions in a given year.
- b) Requirement of fossil fuels for a country to provide goods and services to its citizens, based on the burning of those fuels.
- c) Efforts put in by a climate refugee to adapt to live in a new place.
- d) Contribution of an individual person to the carbon footprint on the planet Earth.

UPSC PYQ (P) 2024

One of the following regions has the world's largest tropical peatland, which holds about three years' worth of global carbon emissions from fossil fuels; and the possible destruction of which can exert detrimental effect on the global climate. Which one of the following denotes that region?

- a) Amazon Basin
- b) Congo Basin
- c) Kikori Basin
- d) Rio de la Plata Basin

Causes of Rising CO2 Levels

A. Anthropogenic (Human-induced) Sources Share (%) Source Fossil Fuel Combustion Power plants, vehicles, ~75% industries Deforestation & Land ~10-15% Reduced carbon sinks **Use Change** + biomass burning Cement & Industrial CO₂ released during ~5% **Processes** calcination Shipping & Aviation Rapidly growing Increasing emitters trend

B. Natural Variability Factors

El Niño events

Forest Fires

Soil Respiration Increase

E ScienceDirect.com

fluxes in response to El Niño-related marine heatwaves in the tropical Pacific Ocean

The spatiotemporal variability of the air-sea CO2 flux on interannual and longer timescales can be reconstructed from annual MHW days and occurrence frequency,...



Rising CO₂ levels



CONTEXT: Rising CO₂ Levels — The Alarming Climate Signal (WMO Report 2024)

The Consequences: for India and the World?

- Extreme Heat Waves
- Sea-Level Rise
- Glacier Melt & Water Security
- 6 Intensified Cyclones & Erratic Monsoons
- Wildfires & Droughts
- Ecosystem Collapse



Human Casualties Due To Extreme Weather Events In 2024 Events Total casualties		Five warmest years on record in India since 1901			
		-			0.65°
Lightning, thunderstor	rm	1,374	20	016	
Floods and heavy rain	n	1,287			0.54
Heatwave		459	20	009	0.40
Cyclones F .		70	21	010	Ω=
Coldwave		7	2	010	0.39
Gale		7	20	017	
Hailstorm		2	L		0.38
Snowfall		1		*above the long-term average (1991-2020 period)	
0	THE	R KEY OBSER	VA	TIONS	
15 warmest years were observed in the recent 15 years wa		Past decade 015-2024) as also the armest on cord		2024 mont 1901	lividually, Oct was the warmest h on record since (with an anomaly .23 degree C)

Year	India's CO₂ Emissions (in Gt)	Global Rank	Key Drivers
2000	1.1 Gt	6th	Industrialisation
2010	1.9 Gt	4th	Power & transport demand
2024	~2.9 Gt	3rd	Energy, coal dependence
0 = 0/			

of Indian
districts are exposed to extreme climate events

1.47 BN
India's population estimated to be estimate extremes by 2036

SB7 BN
India's estimated annual losses due to extreme climate events

□ India accounts for ~7% of global CO₂ emissions, but per capita emissions are still < global average (India: ~2.0 ton; Global avg: ~4.7 ton).

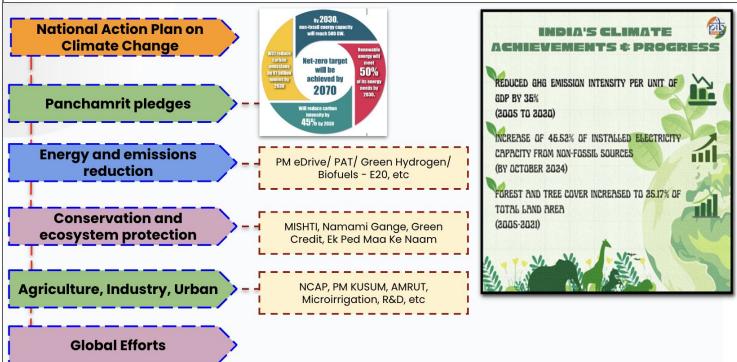


Rising CO₂ levels



CONTEXT: Rising CO₂ Levels — The Alarming Climate Signal (**WMO Report 2024**)

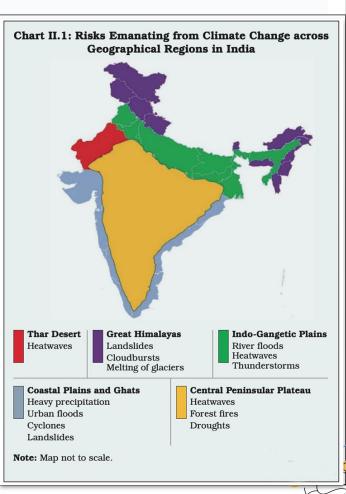
Key Government Initiatives to Combat Climate Change



Mains Practise Question

"Rising CO₂ is not just a number — it's the thermometer of our planet's health." Critically analyse.

(15 Marks, 250 words)



Sri Lankan PM Visit to India



CONTEXT: Sri Lankan PM was on a 3-day official visit to India, marking **people-centric diplomacy** between the two neighbours.



Sri Lankan PM Visit to India



18th October 2025

CONTEXT: Sri Lankan PM was on a 3-day official visit to India, marking **people-centric diplomacy** between the two neighbours.



The Pillars of Cooperation

⊕ Diplomatic	Sri Lanka's BRICS membership . Ind's UNSC non-permanent seat (28-29).
	SLINEX • MILAN exercise • Army Exercise MITRA SHAKTI
	'Free, Open, and Secure Indian Ocean'
	• Port assistance (e.g., Kankesanthurai).
	Inter-Grid Connectivity.
Connectivity	Multi-Product Petroleum Pipeline .
	Sampur Power Project (under preparation).
₩ Economic	USD 4bn financial aid during 2022-23 crisis.
♥ Humanitarian &	• 500,000 COVID vaccines sent to Sri Lanka.
Cultural	• Buddhist Circuit & Ramayana Trail promotion.

AGREEMENTS SIGNED

- MoU on cooperation in renewable energy sector
- Pact between NPCI's international arm and Lanka Pay for UPI-based digital payments in Sri Lanka
- MoU on economic development projects in Trincomalee, Sri Lanka
- Joint 'Declaration of Intent' on animal husbandry and dairying
- Energy permit for Sampur Solar power project



Sri Lankan PM Visit to India



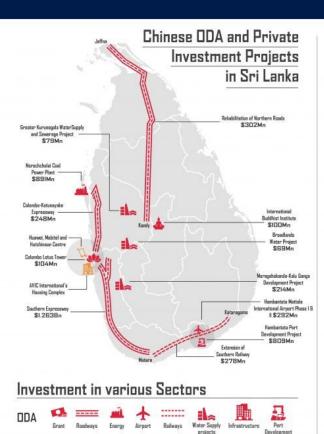
CONTEXT: Sri Lankan PM was on a 3-day official visit to India, marking **people-centric** diplomacy between the two neighbours.

The Challenges: Navigating Troubled Waters



CHINESE INVESTMENTS IN SRI LANKA (2005-15)



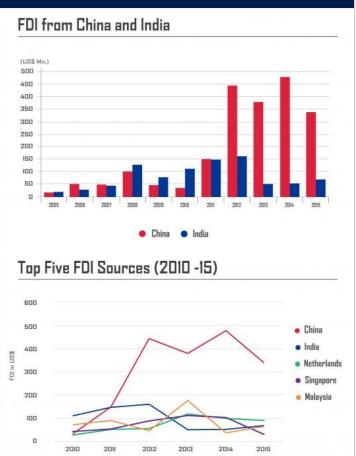


ICT- Information munications Technology

TI

Private

Investments

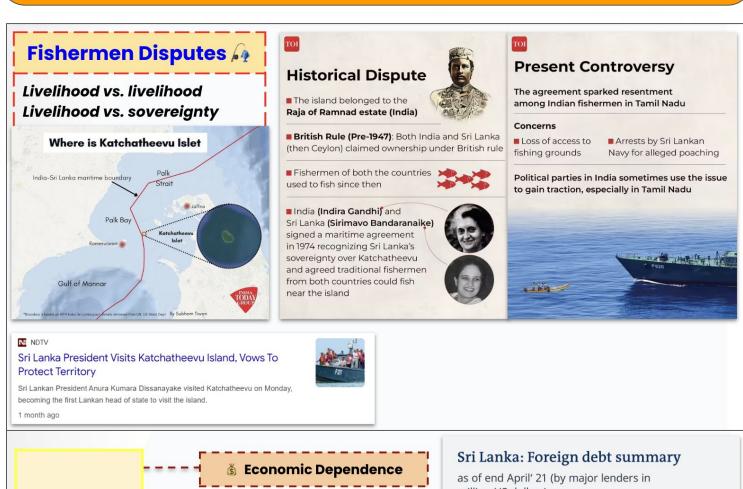


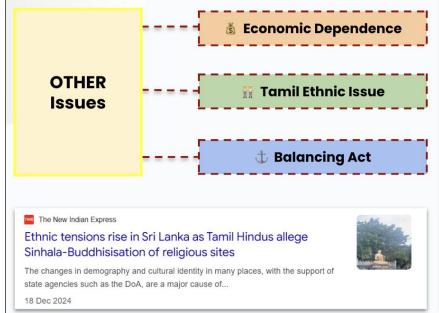
Sri Lankan PM Visit to India

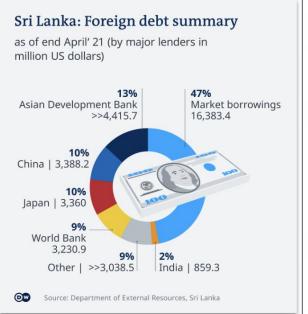


18th October 2025

CONTEXT: Sri Lankan PM was on a 3-day official visit to India, marking **people-centric diplomacy** between the two neighbours.









Sri Lankan PM Visit to India



CONTEXT: Sri Lankan PM was on a 3-day official visit to India, marking **people-centric diplomacy** between the two neighbours.

The Way Forward

Constructive (Respondent (Coo

India's "Five S" Approach: Samman (Respect) | Samvad (Dialogue) | Sahyog (Cooperation) | Shanti (Peace) → leads to Samriddhi (Prosperity)

Soft Power + \(\bar{\text{\te}\text{\texi}\text{\text{\text{\texi}\text{\text{\texi}\text{\texitilex{\texit{\text{\text{\text{\text{\texi}\text{\text{\texit{\text{\text{\

Regional & Multilateral Cooperation Use BIMSTEC, IORA, and SAARC for Maritime security
Trade
Climate change.

Energy
Connectivity

- Fast-track **projects**

Economic Integration

ETCA for trade expansion.

The Indian Express

Won't allow use of Sri Lanka soil to target India, Dissanayake tells PM; Modi conferred highest civilian award

The Sri Lankan government will not permit its territory to be used in any manner inimical to the security of India and regional stability.

6 Apr 2025



Mains Practise Question

The visit by PM Harini
Amarasuriya reflects a
new chapter in
21st-century India-Sri
Lanka relations, where
education, innovation,
and women's
empowerment emerge as
key pillars of diplomacy.
Comment.

(15 Marks, 250 words)





SC on digital arrests



Syllabus: GS Paper 3: Cyber Security

Newspaper: Indian Express, Page No. 14

Digital Arrest Scams — New Face of Cybercrime in India **Digital Arrest** KNOW CYBER, NO CRIME STAY SAFE ONLINE! · Digital Arrest is when someone is falsely detained through digital means Bro, I just got a call saying I'm digitally arrested! They said there's a cyber case in my name! like video calls. What?! Did you send them anything? Scammers impersonate officials to extort money. **Know the Facts: Don't Panic: Scammers** There's no such thing want you to react in as "Digital Arrest" in Indian law Don't Pay: Never send Stay Informed: Police money on video call never interrogate via requests. video calls Don't Engage: Cut suspicious calls short. Stay Alert: No official asks for money or Dude! personal info on calls. **Don't Trust: Ignore** That's a scam Yeah... they asked for money to avoid arrest! unverified calls Report It: Use the No law enforcement agency will ever demand money, Report it on 1930 claiming to be from "Report Suspect" tab officials. on cybercrime.gov.in.

Supreme Court Expresses 'Grave Concern'



A Bench of Justices Surya Kant and Joymalya Bagchi was plaint that they were contacted hearing a complaint by a senior by persons impersonating CBI citizen couple from Ambala who and IB officers, and judicial ausaid they were defrauded of over Rs 1.05 crore by digital arrest fraudsters who threatened them with forged orders of the Supreme Court, the Bombay conferencing, threatening arrest High Court, and the Enforcement and property seizure, and co-Directorate. The Supreme Court erced the couple into transferhad taken suo motu cognizance ring money through multiple of their September 21 complaint. transactions

The couple said in their comthorities through telephone and video calls.

The fraudsters displayed forged orders of the top court through WhatsApp and video

"The fabrication of judicial orders bearing forged signatures of the judges strikes at the very foundation of public trust in the judicial system besides the rule of law. Such action constitutes a direct assault on the dignity and majesty of the institution. Therefore, such grave criminal acts cannot be treated as an ordinary or routine offence of cheating or cyberbetween crime," the court said. The Bench



SC on digital arrests



18th October 2025

Syllabus: GS Paper 3: Cyber Security
Newspaper: Indian Express, Page No. 14

Digital Arrest Scams — New Face of Cybercrime in India

DIGITAL ARREST & RELATED CYBER CRIME No. of incidents Defrauded amount 2022 ₹91.14 cr 2023 60,676 ₹339.03 cr 2024 1,23,672 ₹1,935.51 cr 2025* 17,718 ₹210.21 cr *till Feb 28; Source: Reply in Rajya Sabha by MoS Home Affairs Bandi Sanjay Kumar, based on National Cybercrime Reporting Portal data

Why Do People Fall for It?	
🧠 Fear & Panic	
🔌 Lack of Legal Awareness	
🔝 Social Stigma	
Al Manipulation	
S Isolation	

Category	Example
➢ Phishing	Fake bank or Amazon emails
Lottery/Prize Scams	"You've won ₹10 lakh!"
Romance Scams	Dating app manipulations
🔒 Job Scams	Fake job interviews
✓ Investment Scams	"Earn 5x returns"
CoD/Online Store Scams	Fake shopping sites
% Charity Scams	Fake "flood relief" sites
Money Transfer Scams	"Refund mistake" trick
Credit Card/Loan Scams	"Low-interest loan offers"

Major Government Initiatives Against Cybercrime





SC on digital arrests



18th October 2025

<u>Syllabus</u>: GS Paper 3: Cyber Security Newspaper: Indian Express, Page No. 14

UPSC PYQ (P) 2017

In India, it is legally mandatory for which of the following to report on cyber security incidents?

- 1. Service providers
- 2. Data centres
- 3. Body corporate

Select the correct answer using the code given below

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

UPSC PYQ (P) 2020

In India, under cyber insurance for individuals, which of the following benefits are generally covered, in addition to payment for the loss of funds and other benefits?

- Cost of restoration of the computer system in case of malware disrupting access to one's computer
- 2. Cost of a new computer if some miscreant wilfully damages it, if proved so
- 3. Cost of hiring a specialized consultant to minimize the loss in case of cyber extortion
- 4. Cost of defence in the Court of Law if any third party files

Select the correct answer using the code given below

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



Rotavirus vaccine study



18th October 2025

Syllabus: GS Paper 2: Health

Newspaper: The Hindu, Page No. 12

ROTAVIRUS — BASICS FIRST

A recent study on the impact of the indigenous rotavirus vaccine in India found marked reductions in rotavirus-based gastroenteritis in sites across the country.

Published in the recent edition of *The Nature Medicine*, the study 'Impact of the indigenous rotavirus vaccine Rotavac in the Universal Immunization Program in India during 2016-2020', is an observational,

The study looked at 31 hospitals in nine States between 2016 and 2020, to compare proportions and trends before and after the introduction of Rotavac in the Universal Immunisation Programme (UIP).

In 2016, India introduced Rotavac, an indigenous oral rotavirus vaccine, administered at 6, 10 and 14 weeks of age, in its UIP. When a vaccine is introduced in the UIP, it is provided free to all eligible beneficiaries.

S. N Vaccine		Protection against	
1	BCG	Tuberculosis	
2	Hepatitis B	Hepatitis B, liver infection	
3	Oral Polio Vaccine	Polio	
4	Inactivated Polio Vaccine		
5	Pentavalent vaccine	Diptheria, Pertussis, Tetanus, Hepatitis B &Haemophilus Influenza B	
6	Measles Vaccine	Measles	
7	DPT Vaccine	Diptheria, Pertussis, Tetanus	
8	TT (Tetanus Toxoid)	Tetanus	
9	Rota virus Vaccine	Diarrhoea	
10	Japanese Encephalitis Vaccine	Japanese Encephalitis - a brain infection	

DID you know?

Rotavac was developed as part of a public-private partnership with the Department of Biotechnology, Bharat Biotech, the U.S. National Institutes of Health, the Centers for Disease Control and Prevention, Stanford University, and PATH, with support from the Bill & Melinda Gates Foundation, among others.

Туре	Double-stranded RNA virus
Target	Cells lining small intestine
Transmission	Fecal-oral route
Affected Group	<5 years
Disease Caused	Acute Gastroenteritis → diarrhea, vomiting, dehydration

MAJOR FINDINGS OF THE STUDY

Parameter	Observation		Public Health Impact
Vaccine Effectiveness (VE)	54%		S Economic Impact
Hospitalisation due to Rotavirus	Significant decline	! - - -	
Sustained Effect	Effectiveness stable in first 2 years of life		Scientific & Strategic Significance
Consistency across States	Similar trends nationwide	 	

Equal opportunity for Transgenders



er Persons

<u>Syllabus</u>: GS Paper 2: Vulnerable Sections Newspaper: Indian Express, Page No. 12

mPlight of a transgender in India



Supreme Court orders Indian govt, UP govt, Gujarat govt and a school to each pay ₹50,000 to trans activist and teacher, Jane Kaushik, for not comply with the Trans Act.

Within 1 year, Jane was fired from a school in UP and a school in Gujarat and neither states, nor the Union govt ministries provided Jane protection against discrimination.

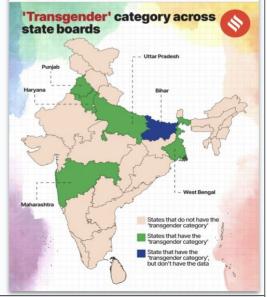
THE SUPREME Court Friday set up a committee under former Delhi High Court judge Justice Asha Menon to recommend a viable equal opportunity policy for transgender persons in the areas of employment and education.

ISSUES faced by the community

Nearly 85% Of Transgender Persons' Applications For ID Cards Are Pending

ID card application status	Transgend
Applied	1,915
Rejected	220
Cards issued	277
Pending	1,418

Note: The National Portal for Transgender Persons was launched in November 2020. Data are as of March 24, 2021 Source: Rajya Sahha



Existing Legal & Constitutional Safeguards

A14	Right to equality; "all persons"
A15 & 16	Prohibit discrimination on grounds of sex; includes gender identity.
A21	Right to live with dignity.
A142	Complete justice

NALSA v. Union of India, 2014

- "third gender"
- Reservations (SEBC)
- Role of Govt.



Equal opportunity for Transgenders



<u>Syllabus</u>: GS Paper 2: Vulnerable Sections Newspaper: Indian Express, Page No. 12

Quant's Directions

◆ Directive	Responsible Entity	Timeline
Formulate Equal Opportunity Policy	Justice Asha Menon Committee	6 months
Create Transgender Welfare Boards	All States/UTs	3 months
Establish Transgender Protection Cells	Under DM & DGP	3 months
Appoint Complaint Officers	All establishments (Sec. 11)	Immediate
Designate Appellate Authority	Each State/UT	3 months
Create Nationwide Toll-Free Helpline	Union Govt	3 months

The committee will also highlight lacunae in the Transgender Persons (Protection of Rights Act), 2019, and the Transgender Persons (Protection of Rights) Rules, 2020, and suggest adequate measures to best address them. The ruling noted except Bengal, Tamil Nadu, and Delhi, "no other State has brought forth any rules along the lines of the 2020 Rules. Orissa and Kerala respectively are the only States that have undertaken comprehensive policy measures. The other States have situated themselves in a comfortable silence."



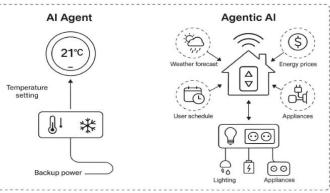
India's Agentic Al opportunity

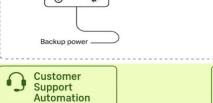


Syllabus: GS Paper 3: Science & Technology

Newspaper: The Hindu, Page No. 13

🙀 What is Agentic AI?













Agentic Al **Use Cases**





Healthcare Operations and Patient Care

硘

838

Sales

Automation

and Lead Management

Human

Resources

Feature	Traditional AI	Agentic AI
Role	Reactive — responds to user inputs	Proactive — plans and acts independently
Learning	Limited to given data	Continuously learns from environment
Interaction	Single-task, rule-based	Multi-agent, context-aware, adaptive
Control	Full human supervision	Partial autonomy, minimal supervision
Example	Chatbot answering FAQs	Al that negotiates contracts or makes investment decisions

Why It's in News — Context for India

For India, where digital public infrastructure and AIdriven innovation are becoming central to economic growth, agentic AI is a massive opportunity well as a potential liability, said Saugat Sindhu, global head, advisory services, cybersecurity & risk services, Wipro Ltd.

However, he added, "Security, privacy, and ethical oversight must evolve as fast as AI itself."

The future of AI in India would be defined by the intelligence of its systems, their strength and responsibility the country takes to deploy and secure them.

🖋 Opportunities

- **AUTO data analysis**
- Economy &
 - **Productivity**
- **Healthcare**
- **Agriculture**
- **National Security**

Liabilities

- Tool Misuse / Prompt Injection
- **Memory** Poisoning
- Resource Overload
- False but plausible Al-generated info
- **Data Privacy Breach**



Empowering humans



Human control



Privacy, security and safety by design



Accountability



Fairness and minimization



Transparency, explainability and ethical use



Places in news:

Venezuela, Egyptian Suez Canal Economic Zone, Bering Strait



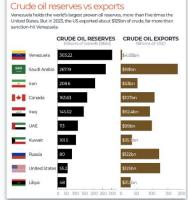
Syllabus: Prelims: Current events of International importance

Newspaper: The Hindu, Page No. 8

1. **VENEZUELA**



It is not difficult to ascertain the true motive of the Trump administration – to control Venezue la's massive petroleum reserves and substantial natural gas deposits. The fact that Caracas has maintained strong trading relations with Russia and China, and close ties with the U.S.'s bête noire, Cuba, also presents a geopolitical chal-lenge to American hegemony in the region – this





2. Egyptian Suez Canal Economic Zone



Chile that resulted in President Salvador Al lende's death and the Contra wars in Nicaragua in the 1980s. Such interventions have led to catasophic consequences such as decades of insta-

bility, democratic backsliding and authoritarian rule, leaving scars across Latin America. Mr. Ma-

Global Oil Shipments Depend On Major Chokepoints

Level of seaborne oil transiting possible chokepoints



"We have a special industrial zone for China and for Russia in the SCZONE and we are encouraging an Indian industrial zone where we would provide all facilitation and incentives to Indian companies," he said, adding that India would be able to export goods beyond Egypt, with its population of 120 million, to a market of more than "two billion inhabitants" across Africa, South Europe, and America, Arab countries that are connected to Egyptian ports through free trade agreements.







Places in news:



Venezuela, Egyptian Suez Canal Economic Zone, Bering Strait

Syllabus: Prelims: Current events of International importance

Newspaper: The Hindu, Page No. 8

3. BERING STRAIT Kremlin envoy suggests Separates the Chukchi 'Putin-Trump tunnel' Peninsula from Seward Russia and the United States Peninsula N should build a "Putin-Trump" rail tunnel under the Bering Strait to link their countries, un-(U.S.) lock joint exploration of natural ARCTIC CIRCLE Width: ~ 82 km resources and "symbolise unity", Fairbanks a Kremlin envoy has suggested. The proposal by Kirill Dmitriev, Putin's investment envoy, envis-BERING STRAIT International Date Line ages a project costing \$8 billion. Anchorage Gulf of Alaska Land Bridge Theory (Beringia) 300 mi 300 km Bering Strait Bridge/Tunnel © WorldAtlas.com



Daily Quiz



18th October 2025

Q1. Regarding the rising levels of atmospheric carbon dioxide (CO₂), consider the following statements:

- 1. Increasing CO₂ concentration enhances the rate of photosynthesis in all plants equally, irrespective of their type.
- 2. Higher atmospheric CO₂ levels can lead to ocean acidification, which reduces the availability of calcium carbonate for marine organisms.
- 3. Rising CO₂ levels are associated with both increased global average temperature and decreased ocean pH.

Which of the statements given above are correct?

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

Answer: b

Q2. The term "Digital Arrest" sometimes seen in the news refers to:

- a) The use of digital technologies by law enforcement agencies to track and detain cyber offenders remotely.
- b) A scam that deceives people into thinking they face official investigation or arrest, tricking them into sharing money or personal data
- c) The judicial process of issuing electronic warrants under the Information Technology Act. 2000.
- d) A preventive detention mechanism that uses Al-based predictive policing tools to identify potential offenders.

Answer: b

Q3. Which of the following statements regarding Rotavirus is/are correct?

- It is one of the leading causes of severe diarrhoea among infants and young children in India.
- It can be prevented through vaccination, and India has developed an indigenous vaccine against it.
- 3. Rotavirus infection spreads primarily through mosquito bites and contaminated water.

Select the correct answer using the codes given below.

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

Answer: b

Q4. Regarding Agentic Artificial Intelligence (Agentic AI), consider the following statements:

- Agentic AI refers to systems that can take autonomous actions to achieve specific goals without requiring continuous human instructions.
- 2. Unlike traditional AI models, Agentic AI can plan, reason, and interact dynamically with external environments or digital tools.
- 3. All Agentic AI systems are necessarily equipped with Artificial General Intelligence (AGI) capabilities.
- 4. The development of Agentic AI raises governance and ethical concerns related to accountability, safety, and unintended decision-making.

How many of the above statements is/are correct?

- a) Only One
- b) Only Two
- c) Only Three
- d) All Four

Answer: c

Q5.Regarding the Bering Strait, consider the following statements:

- 1. It separates the continent of Asia from North America.
- 2. The International Date Line passes roughly through the middle of the strait.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: c





VAJIRAM & RAVI

Institute for IAS Examination

A unit of Vajiram & Ravi IAS Study Centre LLP

9-B, Bada Bazar Marg, Old Rajinder Nagar, New Delhi - 110060 • Ph.: 41007400, 41007500

New No. 62, P Block, 6th Avenue, Anna Nagar, Chennai - 600040 • Ph.: 044-4330-2121 Visit us at: www.vajiramandravi.com