

GOVERNMENT POLICY

❖ **Menstrual hygiene facilities in Indian schools**

➤ **CONTEXT: The Supreme Court recently directed the Union Government to devise a uniform policy to ensure menstrual hygiene for school children.**

- The policy should ensure all government, government-aided and residential schools provide adolescent students with free sanitary napkins and access to a vending and disposal mechanism. Schools should also be equipped with separate washrooms for girl students.
- Absence of menstrual hygiene and awareness drives “period poverty” — or the lack of access to sanitary products, toilets, waste management, handwashing facilities and menstrual hygiene education — globally.
- Studies show period poverty has a ripple effect: girl students drop out of school, are pushed into child marriage, and are more like to experience domestic violence, infections, reproductive illnesses, malnourishment and poor mental health.
- According to UNICEF Meeting the hygiene needs of all adolescent girls is a fundamental issue of human rights, dignity, and public health.

➤ **What does the petition say?**

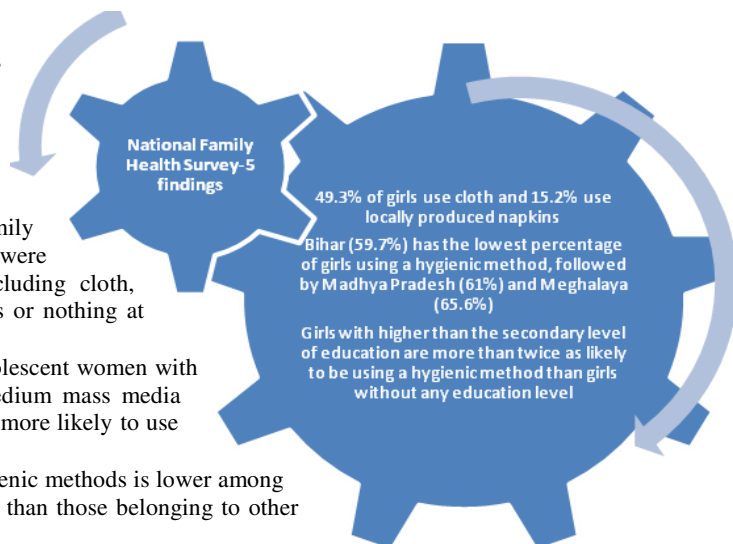
- The Supreme Court bench responded to a PIL which sought directions on two accounts:
 - ✓ Governments ensure schools provide girl students from class 6 to 12 with sanitary pads
 - ✓ There be a separate toilet for girl students.
- These should also be padded with State-wide measures to ensure washrooms have clean running water and waste disposal facilities. Out of 10.8 lakh government schools, 15,000 have no toilets and 42,000 lack drinking water, Education Ministry informed in 2021.
- According to researchers “A safe place for changing and disposal of used pads is hardly available in rural areas.
- Petition argued Investment in social awareness programs is needed, inadequate menstrual hygiene management (MHM) is a barrier to education.
 - ✓ The SC nominated the Ministry of Family Health and Welfare to coordinate with the Jal Shakti Ministry and Ministry of Education to implement policies over four weeks.

➤ **What have governments done so far?**

- Since 2011, the Union Government has launched three initiatives.
 - ✓ The “Menstrual Hygiene Scheme” provides sanitary pads to girls aged 10 to 19, at a rate of ₹6 for a pack of six napkins.
 - ✓ In 2019, the government began distributing eco-friendly and biodegradable pads at a subsidised rate under the Suvidha scheme; data shows as of 2021-22, over 1,128 lakh pads were distributed.
 - ✓ Another initiative, the Rashtriya Kishor Swasthya Karyakram (RKSK), focuses on promoting sexual and reproductive wellness for all adolescents.
- At the State level, the governments of Kerala, Maharashtra, Odisha, Rajasthan, and Sikkim, among other regions, have launched varied schemes to distribute subsidised sanitary napkins, thus making them accessible and affordable to girls who may otherwise be hindered by knowledge gaps or patriarchal norms.
- The Union Government in 2013 issued guidelines for setting up mini incinerators in schools to burn sanitary waste. However, there are concerns about emissions from burning disposable pads made of plastic polymer products -
- In 2012, Kerala had banned such mini incinerators as “they were of single chamber working in low temperature” and not complying with government norms.

➤ **What about implementation?**

- Experts note that the implementation of schemes remains a challenge due to poor product quality, irregular supply, lack of funds and prevailing stigma. While the Jharkhand Government distributes sanitary pads and iron tablets, the situation remains the same.
- Affordability is a barrier. The latest National Family Health Survey data showed at least 30% of girls were using “unhygienic” methods of protection – including cloth, make-shift sanitary pads, dried leaves, newspapers or nothing at all.
- An analysis of the data found that “rural Indian adolescent women with higher education, from general category, with medium mass media exposure and from the richest wealth quintile were more likely to use hygienic methods exclusively”.
- Usage also differs along caste lines: the use of hygienic methods is lower among girls from Scheduled Castes and Scheduled Tribes than those belonging to other castes.
- Expert also noted that Nodal teachers are unwilling to carry sanitary pads to school. “Once taken, the pads are kept in a store and rarely distributed among girls. The quality of pads also has some issues. Girls who come from better socio-economic conditions end up buying market-based products.



- A 2016 analysis of the Menstrual Hygiene Scheme in north India found only 30% of girls used sanitary napkins due to irregular supply. It has been also found that despite Karnataka Government's Shuchi Scheme, most schools neither had functional toilets with water nor dustbins.
- Awareness programs face administrative challenges too. In Jharkhand, male teachers are usually nominated for health education, but their capacity to deal with the concern is limited. "Their sensitivity to the issue, cultural barriers in engaging with adolescent girls and absence of proper information education communication are some major bottlenecks.
- The COVID-19 pandemic, and subsequent school closure, further restricted access to affordable sanitary napkins. Most States ceased menstrual schemes due to a lack of funds. Outside of schools, people were unable to afford sanitary napkins sold by private pharmacies.
- According to an expert current programmes focus on able-bodied girl students, overlooking non-binary, gender non-conforming folks, and trans-men who also menstruate. Others with disabilities may also be sidelined, as "limited mobility, cognitive capacities and self-care pose even greater challenges.
- **How are menstrual facilities and awareness linked to education access?**
- In April 2021, the Karnataka High Court instructed Government to empower young women and young girls, provide [menstrual] facilities. This will not only lead to empowerment of the girl child, but also implementation of the fundamental right under Article 21A [Right to Education]."
- Girls' enrolment in schools reduces at the secondary education level due to varied factors, with MHM being one. 23% of girls in India drop out of school due to a lack of menstruation products, inadequate washrooms and absent disposal facilities, according to an estimate by the United Nations Water Supply and Sanitation Collaborative Council.
- Knowledge gaps are also an issue- almost 71% of adolescent girls are unaware of menstruation until they get their first period, a study by UNICEF found.
- Even when adolescent girls attend school, absent menstrual infrastructure results in irregular attendance. The latest Annual Status of Education Report found that in Bihar, girl school students had low attendance because 36.7% of primary and upper primary schools did not have separate toilets. A 2022 paper estimated one in five girls dropped out of school after their periods started, and 70.5% of people missed school and workdays due to periods.
- In 2018, that 60% of adolescent girls skipped school while on their period; a key concern was anxiety around staining their uniform (since most used homemade pads). The lack of clean toilets, running water, or a disposal system further deterred attendance. Sanitary napkins were incinerated, buried in the ground or flushed in toilets due to improper waste management and lack of awareness, other reports suggest.
- Alternatively, when schools provided menstruation products, improved sanitation facilities and launched awareness programmes, the proportion of girls reporting anxiety about their period decreased from 58.6% to 34%, with an upswing in attendance rate.
- Under Chattisgarh *Pavna*, a community-led programme focusing on awareness, sanitary napkin usage increased from 40% to 75% within a year in 2022. Activists also note that governments should move towards eco-friendly products and allow students to choose between sanitary napkins, tampons and menstrual cups.
- From a policy standpoint, expert identifies the need for more female teachers at school, regular assessment of pad quality, proper implementation of schemes and capacity building on health education. "Functional toilets at school are very important" and a starting point for menstrual hygiene management.
- An estimate shows that India can advance its GDP by 2.7% (\$86.7 billion) by positively addressing period poverty, as it can improve girls' and women's health, education, well-being and economic independence.

POLITY

- ❖ **50 years of Kesavananda Bharati case and its legacy**
- **CONTEXT: The seminal ruling in Kesavananda Bharati, in which the Supreme Court laid down the "basic structure" doctrine on the limits of Parliament's power to amend the Constitution, completes 50 years on 23 April 2023.**
- Over the decades, the basic structure doctrine has been criticised repeatedly — for diluting the principle of separation of powers and undermining the sovereignty of Parliament, and as a vague and subjective form of judicial review.
- A scrutiny of the application of the doctrine over the past half century reveals a telling pattern: although the highest court has invoked "basic structure" sparingly, it has mostly struck down amendments where judicial powers have been curtailed. Consider:
- Since 1973, the year of the Kesavananda Bharati judgment, the Constitution has been amended more than 60 times. In these five decades, the Supreme Court has tested constitutional amendments against the doctrine of basic structure in at least 16 cases.
- In nine of these 16 cases, the Supreme Court has upheld constitutional amendments that had been challenged on grounds of violation of the basic structure doctrine. Six of these cases relate to reservations — including the quota for Other Backward Classes (OBC) and Economically Weaker Section (EWS), and reservations in promotions.
- The Supreme Court has struck down a constitutional amendment entirely just once — The Constitution (Ninety-ninth Amendment) Act, 2014, which established the National Judicial Appointments Commission (NJAC), the body that would have been responsible for the appointment and transfer of judges, replacing the current Collegium system. The amendment was struck down by a five-judge Constitution Bench in 2015 on the grounds that it threatened "judicial independence", which the court ruled was a basic feature of the Constitution.
- In six instances since 1973, including the Kesavananda ruling itself, the Supreme Court has "partially struck down" a constitutional amendment. In all these cases, the provision that was struck down related to the denial of judicial review.

50 YEARS OF BASIC STRUCTURE DOCTRINE



The court, however, held that Article 368 of the Constitution does not enable Parliament to alter the basic structure or framework of the Constitution.

(Above) Front page of *The Indian Express* on April 25, 1973, the day after the SC's historic judgment. The court ruled that while Parliament could amend the fundamental rights, the "basic structure" of the Constitution — including judicial review, rule of law, federalism, and the democratic structure — was inviolable. The basic features test is seen as a check on Parliament's majoritarian impulses, since it places substantive limits on its powers to change the Constitution.



Kesavananda Bharati, the seer of Edneer Mutt, Kasaragod, Kerala, who passed away in Sept 2020. Twitter/@VPrudis

THE BENCH
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MINORITY



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Just one of these six rulings involve an amendment that was not made during the Indira Gandhi era — in *Kihoto Hollohan*, which dealt with the Tenth Schedule.

- *Kihoto Hollohan vs Zachillhu And Others* (1992): The Supreme Court upheld The Constitution (Fifty-second Amendment) Act that introduced the Tenth Schedule or the so-called "anti-defection law" in the Constitution. The only portion of the amendment that was struck down was the one that stated that the decisions of the Speaker relating to disqualification cannot be judicially reviewed.
- In 2021, a three-judge Bench of the court struck down a portion of The Constitution (Ninety-seventh Amendment) Act, 2011, but on procedural — not basic structure — grounds. The amendment changed the legal regime for cooperative societies, and the court ruled that cooperative societies within a state, as opposed to inter-state, would fall under the State List, which means that a constitutional amendment relating to it must be ratified by half the states as prescribed in the Constitution. (*Union of India vs Rajendra N Shah*, 2021)
- *Kesavananda Bharati Sripadagalvaru and Ors vs State of Kerala and Anr* (1973): While the court upheld the land ceiling laws that were challenged, it struck down a portion of the 25th Amendment (1972) which stated that "if any law is passed to give effect to the Directive Principles" it cannot "be deemed to be void on the ground that it takes away or abridges any of the rights contained in Article 14, 19 or 31".
- *Indira Gandhi v Raj Narain* (1975): The SC applied the principle laid down in the Kesavananda ruling for the first time in this case. It struck down The Constitution (Thirty-ninth Amendment) Act, 1975, which barred the Supreme Court from hearing a challenge to the election of President, Prime Minister, Vice-President, and Speaker of Lok Sabha.
- *Minerva Mills Ltd vs Union Of India* (1980): The SC struck down a clause inserted in Article 368 (which gives the power and lays down the procedure to amend the Constitution), which said "there shall be no limitation whatever on the constituent power of Parliament to amend by way of addition, variation or repeal the provisions of this Constitution."
- *P Sambamurthy v State of Andhra Pradesh* (1986): The SC struck down a portion of the 32nd Amendment (1973), which constituted an Administrative Tribunal for Andhra Pradesh for service matters, taking away the jurisdiction of the High Court.
- *L Chandra Kumar v Union of India* (1997): The top court struck down a portion of the 42nd Amendment, which set up administrative tribunals excluding judicial review by High Courts.

PRELIMS

1. Fertilizer use in India

➤ **CONTEXT:** None of the measures introduced by the government have succeeded in reducing urea consumption.

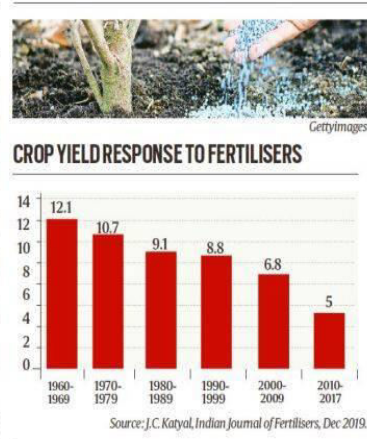
- What were the government initiatives to curb consumption:

- ✓ In 2015, the Centre made it mandatory to coat all indigenously manufactured and imported urea with neem oil.
- ✓ This was followed by replacing 50-kg bags with 45-kg ones in 2018.
- ✓ Liquid 'Nano Urea' was launched by the Indian Farmers' Fertiliser Cooperative (IFFCO) in 2021.

- Trends in urea consumption:
- ✓ Sales of urea crossed a record 35.7 million tonnes (mt) in the fiscal year ended March 31, 2023.
- ✓ Consumption did dip in the initial two years after neem-coating was fully enforced from 2015. Because it was seemingly making it difficult for the heavily subsidised fertiliser to be used by plywood, particle board, textile dye, cattle feed and synthetic milk makers.

	UREA	DAP	MOP*	NPKS	SSP
2009-10	266.73	104.92	46.34	80.25	26.51
2010-11	281.13	108.7	39.32	97.64	38.25
2011-12	295.65	101.91	30.29	103.95	47.46
2012-13	300.02	91.54	22.11	75.27	40.3
2013-14	306	73.57	22.8	72.64	38.79
2014-15	306.1	76.26	28.53	82.78	39.89
2015-16	306.35	91.07	24.67	88.21	42.53
2016-17	296.14	89.64	28.63	84.14	37.57
2017-18	298.94	92.94	31.58	85.96	34.39
2018-19	314.18	92.11	29.57	90.28	35.79
2019-20	336.95	101	27.87	98.57	44.03
2020-21	350.43	119.11	34.25	118.11	44.89
2021-22	341.8	92.72	24.57	114.79	56.81
2022-23	357.25	105.31	16.32	100.73	50.18

*For direct application, excluding supply to complex fertiliser units.
Source: Fertiliser Association of India. (in lakh tonnes)



- That trend reversed from 2018-19.
- ✓ Urea sales in 2022-23 were about 5.1 mt higher than in 2015-16 and over 9 mt than in 2009-10, before the introduction of the nutrient-based subsidy (NBS) regime in 2010.
- ✓ All other fertilisers, barring single super phosphate (SSP), have registered much lower increases or even declines (see table).

- India is the second-largest consumer and the third-largest producer of urea in the world.
- India consumes around 33 million tonnes of urea annually, of which almost 70% is domestically produced and the rest is imported from other countries.

➤ **Nano urea liquid**

- Nano urea liquid is a nanotechnology-based fertilizer to increase the growth of crops by restoring nitrogen to plants as an alternative to conventional urea.
- It enhances the nutritional quality and productivity of the crop along with improving the underground water quality.
- The Indian Farmers Fertiliser Cooperative Limited (IFFCO), a cooperative society, has developed and patented nano urea liquid technology.
- When sprayed on leaves, Nano Urea easily enters through stomata and other openings and is assimilated by the plant cells.
- It is easily distributed through the phloem from the source to sink inside the plant as per its need.
- Unutilised nitrogen is stored in the plant vacuole and is slowly released for proper growth and development of the plant

➤ **The One Nation One Fertiliser scheme**

- Under the scheme, all fertiliser companies, State Trading Entities (STEs) and Fertiliser Marketing Entities (FMEs) will be required to use a single "Bharat" brand for fertilisers and logo under the Pradhan Mantri Bharatiya Janaushadhi Pariyojana (PMBJP).
- The new Bharat brand name and PMBJP logo will cover two-thirds of the front of the fertiliser packet
- The manufacturing brands can only display their name, logo, and other information on the remaining one-third space

2. UDAN 5.0

➤ **CONTEXT:** The Ministry of Civil Aviation has inaugurated the 5th round of the Regional Connectivity Scheme (RCS) - Ude Desh Ka Aam Nagrik (UDAN) to improve connectivity to rural and regional areas of the country and attain last-mile connectivity.

➤ **About**

- India is a large and diversified country with numerous remote and regional areas in desperate need of improved air connectivity.
- To solve this issue and make air travel more affordable and available to the general public, the government has launched a scheme known as UDAN (Ude Desh Ka Aam Nagrik) or Regional Connectivity Scheme (RCS).
- UDAN launched in 2016 and has completed four rounds of successful bidding, resulting in the operation of 361 routes and 59 airports, heliports, and water aerodromes. The initiative has also resulted in the creation of over 10,000 direct and indirect jobs, as well as increased tourism, trade, and economic development in the regions.
- Recently, the Ministry of Civil Aviation launched the fifth round of UDAN, called UDAN 5.0.
- Objectives: Linking new routes and bringing the air network closer to its goal of operationalizing 1000 routes and 50 additional airports, heliports, and water aerodromes soon.

➤ **Features**

- The latest phase of UDAN focuses on Category-2 (20-80 seats) and Category-3 (>80 seats) aircraft operations that can accommodate longer distances and higher passenger demand.
- The earlier stage length cap of 600 km is lifted, and there are no distance restrictions between the flight's origin and destination.
- Airlines will be able to connect additional destinations across the country as a result of this.

- The viability gap funding (VGF), financial assistance granted by the government to make the routes viable, would be capped at 600 km stage length for both Priority and Non-Priority sectors, up from 500 km previously. This will ensure that funds are used efficiently and that over-subsidization is avoided.
- Only Network and Individual Route Proposals proposed by airlines will be considered. This will give more flexibility and choice to the airlines to design their networks based on market demand and operational feasibility.
- The airlines will be required to submit an action/business plan after two months from the issuance of the Letter of Authorisation (LoA), wherein they will submit their aircraft acquisition plan/availability of aircraft, crew, slots, etc. at the time of the technical proposal. This will ensure faster operationalization of routes and avoid delays.
- The same route will not be awarded to a single airline more than once, whether in different networks or the same network.
- Exclusivity will be withdrawn if the average quarterly passenger load factor (PLF) is higher than 75% for four continuous quarters, to prevent exploitation of the monopoly on a route. This will prevent monopoly and encourage competition among airlines.
- This will also create more opportunities for other airlines to enter the market.
- 25% of the Performance Guarantee, which is an amount deposited by the airlines as a security for their performance, will be encashed for each month of delay up to four months, to further incentivize quick operationalization. Earlier this deadline was six months.
- The novation process for routes from one operator to another is simplified and incentivized. Novation is a process where an airline can transfer its rights and obligations under a route to another airline with mutual consent.

ANSWER WRITING

Q. Discuss the application of emerging artificial technologies (AI) that can help in saving the environment from various threats.

Artificial intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions. AI has the potential to accelerate global efforts to protect the environment and conserve resources through various applications. According to a study conducted by Microsoft, AI applications in the sectors of agriculture, water, energy and transport could lead to a 4% cut in greenhouse gas emissions by 2030.

Application of Artificial Intelligence (AI) technologies in saving the environment from various threats:

- **Curbing deforestation:** Deforestation and land use changes cause more than 10% of global greenhouse gas emissions. For curbing illegal land clearing, a monitoring sensor is attached to trees that eavesdrop on the surrounding forest and transmit that audio in real-time to the cloud. Almost 600 of these devices, called “guardians,” have been installed in 35 countries.
- **Reducing carbon footprints:** Materials such as steel and cement are important components in construction. But they are also heavy CO2 emitters and a big part of this share comes from the mining and transportation of ingredients used in the production process. To address this, AI tools can be used to reduce the amount of mined ingredients or alloys.
- **Cutting energy waste in buildings:** Buildings are responsible for about 40% of global energy consumption and about one-third of global greenhouse gas emissions. For cutting energy wastes in buildings, an app called Neuron has been developed which uses 5G and Internet of Things sensors (IOTs) to gather real-time data from a building’s energy management system.
- **Smart farming:** Agriculture is vulnerable to climate change, with unpredictable temperatures, more frequent extreme weather events and invasive pests all posing a risk to crop yields. To address these concerns, a startup Agvolution has developed an AI system that draws on data from solar-powered sensors monitoring the microclimate around crops. The devices measure temperature, humidity, radiation and soil moisture in the field and make recommendations about water and fertilizer needs.
- **Tracking air quality:** Air purifiers with AI can record air quality and environmental data in real-time and adapt the filtration efficiency. Also, using data from vehicles, radar sensors and cameras AI can help improve air pollution. For e.g.: UNEP has launched International Methane Emissions Observatory (IMEO) which leverages AI to revolutionize the approach to monitoring and mitigating methane emissions.
- **AI can be used to fight poaching:** Poaching can be a serious threat to many wild species, particularly those protected in wildlife reserves and national parks. For e.g.: rhino species have become endangered as a result of poaching. To address this, an AI-enabled bracelet has been developed that fits around rhinos’ ankles to help conservation teams locate the animals and monitor their behaviour in real time.

Artificial Intelligence as part of the fourth Industrial revolution along with other technologies such as robotics, the Internet of Things (IoT), blockchain, 3D printing, genetic engineering, and quantum computing can help transform traditional sectors and systems to address climate change. It can also help in achieving SDGs and fulfilling ambitious climate targets.

MCQs

- | | |
|---|---|
| <p>1. Recently ‘Suidha’ scheme is in news. Consider the following statements with reference to Suidha.</p> <p>1. Under the scheme a 100% Oxo-biodegradable Sanitary Napkin has been distributed government High schools across the country.</p> | <p>2. It is an initiative under Ministry of Chemicals and Fertilizer</p> <p>Which of the above statement/s is /are not correct?</p> <p>a) 1 only
b) 2 only
c) Both 1 and 2
d) Neither 1 nor 2</p> |
|---|---|

2. With reference to Rashtriya Kishor Swasthya Karyakram (RKSK) consider the following
1. The scheme focuses on age groups 10-19 years with universal coverage
 2. The programme is limited to sexual and reproductive health

Which of the above statement/s is/are correct?

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

3. With reference to consider the following
1. Asia Pacific Leaders Malaria Alliance committed to eliminating malaria in the region by 2030.
 2. World Malaria Day (WMD) is an international observance commemorated every year on 25

Which of the above statement/s is/are not correct?

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

4. Consider the following statements about 'Ude Desh ka Aam Nagrik (UDAN)' scheme :

1. It is an innovative scheme to develop the regional aviation market.
2. It creates affordability yet economically viable and profitable flight on regional routes.

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

5. With reference to chemical fertilizers in India, consider the following statements

1. At present, the retail price of chemical fertilizers is market-driven and not administered by the Government.
2. Ammonia, which is an input of urea, is produced from natural gas.
3. Sulphur, which is a raw material for phosphoric acid fertilizer, is a by-product of oil refineries.

Which of the statements given above is/are correct?

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

6. Operation Kaveri often mentioned in news is related to which of the following?

- a) **Evacuation of Indian Nationals from Sudan**
- b) Search and rescue operation of Indian mountaineer
- c) Anti piracy operation across the Indian Ocean
- d) Joint Naval Exercise between India and Sri Lanka

7. Nauradehi wildlife sanctuaries recently seen in news is located in which of the following state?

- a) Madhya Pradesh
- b) Andhra Pradesh
- c) Chhattisgarh
- d) Uttarpradesh

8. The term "LockBit" recently seen in news is related to which of the following?

- a) It is a ransomware
- b) It is a protection software used to safeguard important credentials
- c) DNA preservative
- d) Secure Bitcoin transactions

9. With reference to the use of Calcium Carbide consider the following statements

1. Calcium carbide is commonly used in mining and metal industries.
2. It releases acetylene gas which is used to artificially ripen fruits.
3. Use of calcium carbide is prohibited as per the provision of Food Safety and Standards (Prohibition and Restriction on Sales) Regulation, 2011.

Which of the above statement/s is /are correct?

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

10. Consider the following statement/s with reference to Khelo India Scheme(KIS)

1. KIS has been introduced to revive sports culture in India at the grass-root level.
2. It is the flagship Centrally Sponsored Scheme of the Ministry of Youth Affairs & Sports.

Which of the above given statements is/are correct?

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