

**GOVERNANCE****Special Marriage Act, 1954**

Recently, the Allahabad High Court has struck down the provisions under Section 5 of the Special Marriage Act that required parties to give a 30-day mandatory public notice of their intention to marry.

**Key Points****Special Marriage Act (SMA), 1954:**

- The Special Marriage Act is a central legislation made to validate and register interreligious and inter-caste marriages in India.
- It allows two individuals to solemnise their marriage through a civil contract.
- No religious formalities are needed to be carried out under the Act.

**Provisions of the Special Marriage Act:**

**Section 4:** There are certain conditions laid down in Section 4 of the Act:

- It says that neither of the parties should have a spouse living.
- Both the parties should be capable of giving consent; should be sane at the time of marriage.
- The parties shall not be within the prohibited degree of relations as prescribed under their law.
- While considering the age, the male must be at least 21 and the female be 18 at least.

**Section 5 and 6:**

- Under these sections, the parties wishing to marry are supposed to give a notice for their marriage to the Marriage Officer in an area where one of the spouses has been living for the last 30 days. Then, the marriage officer publishes the notice of marriage in his office.
- Anyone having any objection to the marriage can file against it within a period of 30 days. If any such objection against the marriage is sustained by the marriage officer, the marriage can be rejected.

Details of the verdict

**Observations:**

- The provision for mandatory publication of notice, derived through “simplistic reading” of the particular law, “would invade the fundamental rights of liberty and privacy, including within its sphere freedom to choose for marriage without interference from state and non-state actors, of the persons concerned”.
- The court also noted that despite the secular law for marriage, a majority of marriages in the country happen as per religious customs. It said that when marriages under personal law do not require a notice or invitation for objections, such a requirement is obsolete in secular law and cannot be forced on a couple.
- Publishing marriage details made optional: The court made it optional for the parties to the intended marriage to make a request in writing to the Marriage Officer to publish or not to publish a notice under Section 5 and 6 of the Act of 1954.
- Directives for Marriage officer: In case the parties do not make such a request for publication of notice in writing, the Marriage Officer shall not publish any such notice or entertain objections to the intended marriage and proceed with the solemnization of the marriage. However, in case the officer has any doubt, he could ask for appropriate details/proof as per the facts of the case.

**Basis of Judgement is progressive rulings by the Supreme Court:**

- Aadhaar case (2017) which made the right to privacy a fundamental right under Article 21 of the Constitution of India.
- Hadiya Marriage Case (2018) which held that the right to choose a partner is a fundamental right.
- Navtej Singh Johar vs. Union of India case (2018) in which the court decriminalised homosexuality striking down the Section 377 of IPC.

**Benefits of the verdict**

- It would decrease the cases of conversion for marriage, as the delay under the special marriage Act 1954 was forcing many couples to marry by converting.
- It shall remove hindrances to inter-faith and inter-caste marriages, and thus could promote ideals of secularism and egalitarianism.
- It shall provide relief to interfaith couples from being targeted by vigilante groups.

**Issue related to the verdict:**

- Doing away with the public notification of the marriage could increase the cases of cheating, for example cases of duping by a married spouse.

- It can facilitate anti social activities such as forceful conversion.

### INTERNATIONAL RELATION

#### **USA Redesignates Cuba as State Sponsor of Terrorism**

Recently, the USA State Department has designated Cuba as a State Sponsor of Terrorism for repeatedly providing support for acts of international terrorism in granting safe harbour to terrorists.



#### **Key Points**

##### **Provisions for sanctions on countries:**

- The State Department of the USA can place four categories to enlist any country as sanctioned:
- Restrictions on foreign assistance by the USA.
- A ban on defence exports and sales.
- Certain controls over exports of dual use items.
- Sanctions can also be placed on countries and persons that engage in certain trade with designated countries.

Four countries remain on the list: Syria, Iran, North Korea and Cuba.

Cuba was delisted in 2015 and has been blacklisted again.

**Cuba Designated as a State Sponsor of Terrorism:** The USA government had been accusing the Castro regime for:

- Illegitimate interference in internal politics Venezuela.
- Oppressing the people of Cuba.
- Supporting international terrorism.
- Subversion of the USA justice.

##### **USA-Cuba Relationship:**

- The United States and Cuba have had a strained relationship for more than sixty years, rooted in Fidel Castro's overthrow of a USA-backed government in 1959.
- Presidents Barack Obama and Raul Castro took several steps to normalize bilateral relations, including restoring diplomatic ties and expanding travel and trade.
- The Trump administration has reversed aspects of the past agreements by reimposing restrictions on tourism and other commerce.

##### **Havana Syndrome:**

- In late 2016, USA diplomats and other employees stationed in Havana (capital of Cuba) reported feeling ill after hearing strange sounds and experiencing odd physical sensations.

- The symptoms included nausea, severe headaches, fatigue, dizziness, sleep problems, and hearing loss, which have since come to be known as the Havana Syndrome. The USA had accused Cuba of carrying out “attacks”, but Cuba denied any knowledge of the illnesses.

**Historical Reasons for Strained Relationship:**

- Cuban Revolution: The tumultuous USA-Cuba relationship has its roots in the Cold War. In 1959, Fidel Castro and a group of revolutionaries seized power in Havana (city capital of Cuba). They overthrew the USA-backed government of Fulgencio Batista.

**Cuban Missile Crisis:**

- The United States severed diplomatic ties with Cuba and began pursuing covert operations to overthrow the Fidel Castro regime in 1961.
- The missile crisis arose after Cuba allowed the Soviet Union to secretly install nuclear missiles on the island following an attempt by the USA agencies to topple Cuban Government, known as the Bay of Pigs invasion.
- In the end, Soviet Union head Khrushchev agreed to withdraw the missiles in exchange for a pledge from Kennedy (USA) not to invade Cuba and to remove the USA nuclear missiles from Turkey.
- Trade with Soviet Union: After the Cuban Revolution, the United States recognized Fidel Castro’s government but began imposing economic penalties as the new regime increased its trade with the Soviet Union, nationalized American-owned properties, and hiked taxes on the USA imports.
- Embargo by Kennedy Government (1962): After slashing Cuban sugar imports, the USA instituted a ban on nearly all its exports to Cuba, which President John F. Kennedy expanded into a full economic embargo that included stringent travel restrictions.

**India's Stand:**

- Supports Lifting Economic Blockade of Cuba: Recently when the USA opposed Cuba’s membership in UNHRC in 2019, India joined the majority of countries from all continents that raised their voices in the UN General Assembly to demand an end to the unjust and long economic blockade of the United States against Cuba.
- Criticised the USA Embargo: In the UN General Assembly, India stressed that the continued existence of this siege by the USA against Cuba contravenes world opinion, undermines multilateralism and the credibility of the United Nations.

**UN General Assembly's Stand:**

- Since 1992, the UN General Assembly has approved every year a resolution acknowledging the necessity of ending the economic, commercial and financial blockade imposed by the United States of America against Cuba.

**Way Forward**

- Reinitiating Bilateral Talks: Resuming Washington’s blockade against Cuba appears to be the most unjust, prolonged system of unilateral sanctions applied against any country. There is an urgent need to improve the relationship between the two countries through bilateral talks.
- Respecting the Spirit of Democracy: As a large population of Cuban immigrants and people with Cuban roots reside in the USA, it is for the sake of democracy and spirit of internationalism that the two countries make efforts towards reconciliation.
- For India: India has good ties with both the countries. If the tension between the two - USA and Cuba escalates, it is important for India to rationally balance the relationships.

**SCIENCE AND TECHNOLOGY****Lumpy Skin Disease**

Recently, a Lumpy Skin Disease (LSD) has been infecting India’s bovines.

The disease is being reported for the first time in India.

**Key Points****Cause:**

The LSD is caused by infection of cattle or water buffalo with the poxvirus Lumpy skin disease virus (LSDV).

The virus is one of three closely related species within the genus capripoxvirus, the other two species being Sheppox virus and Goatpox virus.

**Symptoms:**

- It appears as nodules of two to five centimetre diameter all over the body, particularly around the head, neck, limbs, udder (mammary gland of female cattle) and genitals.
- The lumps gradually open up like large and deep wounds.
- Other clinical signs include general malaise, ocular and nasal discharge, fever, and sudden decrease in milk production.

**Effect:**

- According to the Food and Agriculture Organization (FAO) the mortality rate is less than 10%.

**Vectors:**

- It spreads through mosquitoes, flies and ticks and also through saliva and contaminated water and food.

**Prevention:**

- Control and prevention of lumpy skin disease relies on four tactics - movement control (quarantine), vaccination, slaughter campaigns and management strategies.
- Treatment:
- There is no treatment for the virus, so prevention by vaccination is the most effective means of control.
- Secondary infections in the skin may be treated with Non-Steroidal Anti-Inflammatories (NSAIDs) and also antibiotics when appropriate.

**Global Spread:**

- LSD is endemic to Africa and parts of West Asia, where it was first discovered in 1929.
- In Southeast Asia the first case of LSD was reported in Bangladesh in July 2019.
- In India, which has the world's highest 303 million heads of cattle, the disease has spread to 15 states within just 16 months.
- In India it was first reported from Mayurbhanj, Odisha in August 2019.

**Implication:**

- This will have a devastating impact on the country, where most dairy farmers are either landless or marginal landholders and milk is among the cheapest protein sources.

**NANO BODIES**

An international research team led by the University of Bonn (Germany) has identified and further developed novel antibody fragments (nanobodies) against SARS-CoV-2, the virus that causes Covid-19.

**Key Points****Nanobodies Against SARS-CoV-2:**

Produced along with Antibodies: On injection of surface protein of the coronavirus into an alpaca and a llama, their immune system not only produced antibodies directed against the virus but also a simpler antibody variant that can serve as the basis of nanobodies.

**More Effective:**

- They had also combined the nanobodies into potentially particularly effective molecules, which attack different parts of the virus simultaneously. This new approach could prevent the pathogen from evading the effect of antibodies through mutations.
- Nanobodies appear to trigger a structural change before the virus encounters its target cell - an unexpected and novel mode of action. The change is likely to be irreversible; the virus is therefore no longer able to bind to host cells and infect them.

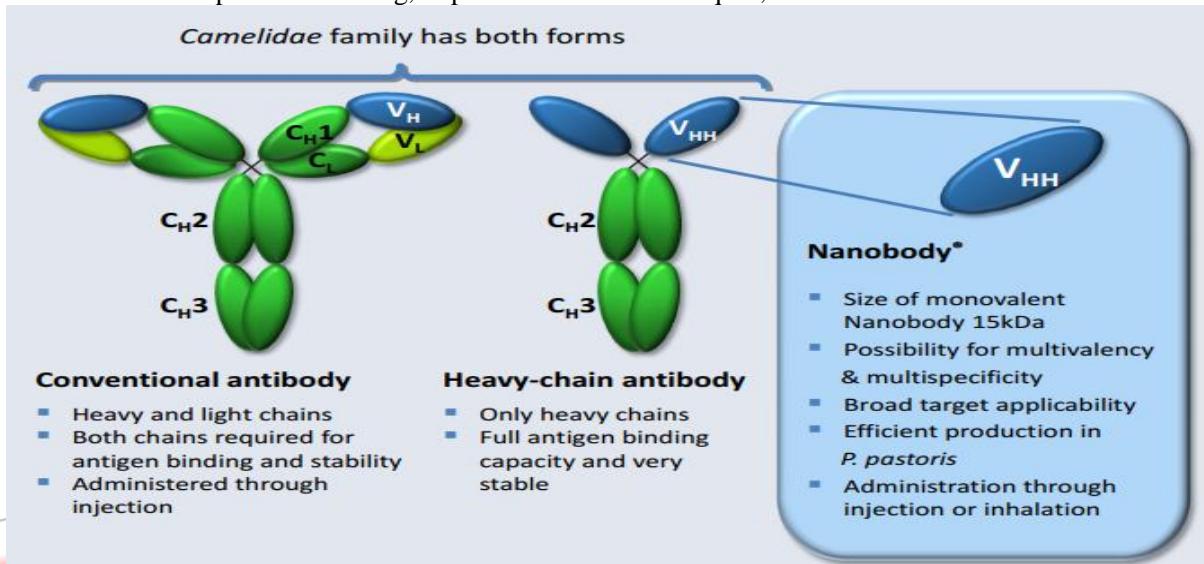
**Antibodies:**

- Antibodies are an important weapon in the immune system's defense against infections.
- They bind to the surface structures of bacteria or viruses and prevent their replication.
- One strategy in the fight against disease is therefore to produce effective antibodies in large quantities and inject them into patients. However, producing antibodies is difficult and time-consuming; they are, therefore, probably not suitable for widespread use.

**Nanobodies:**

- Nanobodies are antibody fragments that are so simple that they can be produced by bacteria or yeast, which is less expensive.
- These are antibodies with a single variable domain located on a heavy chain, also known as VHH antibodies.
- These are often seen as an alternative to conventional antibodies, and have significant differences in both production and use that influence their suitability.

- Difference between Nanobodies and Conventional Antibodies:
- Difference in Structure and Domains:
- Conventional antibodies have two variable domains, called VH and VL, which offer each other stability and binding specificity.
- Nanobodies have VHH domains and lack VL domains, but are still highly stable. Lacking the VL domain also means nanobodies have a hydrophilic (having a tendency to dissolve in a water) side.
- Hydrophilic side means they do not have issues with solubility and aggregation otherwise associated with conventional antibodies.
- Nanobody production follows many of the same protocols as used in traditional antibody production. However, it also has distinct advantages not available with traditional antibodies, such as improved screening, improved isolation techniques, and no animal sacrifice.


**Use:**

- Nanobodies are much smaller than classic antibodies and they, therefore, penetrate the tissue better and can be produced more easily in larger quantities.
- Nanobodies are stable in a wide range of temperatures, remaining functional at temperatures as high as 80°C. As an added bonus, unfolding of the nanobody due to high temperatures has been shown to be fully reversible, unlike conventional antibody fragments.
- Nanobodies are also stable at extreme pH levels, able to survive exposure to gastric fluid.
- Nanobodies are also compatible with genetic engineering methods, which allow alteration of amino acids to improve binding.

**Limitations of Nanobodies:**

- Monoclonal and polyclonal antibodies are slightly safer to produce than nanobodies, as there are biohazards involved in nanobody production not present for conventional antibody production.
- The biohazards result mainly from use of hazardous bacteriophages (any of a group of viruses that infect bacteria) for selection of nanobodies. Other sources include plasmids, antibiotics, and recombinant DNA. These materials require safe disposal.
- Polyclonal antibodies are made using several different immune cells.
- Monoclonal antibodies are made using identical immune cells that are all clones of a specific parent cell.

**BIODIVERSITY & ENVIRONMENT**
**Dzukou Valley**

The two-week long forest fire in Dzukou valley on Nagaland-Manipur border has been doused.

- The 90-sq km green valley has been prone to forest fires for decades - in 2015, 2012, 2010 and 2006.



### Key Points

**Location:** The Dzukou Valley, popularly known as the ‘valley of flower’, is located at the border of Nagaland and Manipur.

### Features:

- Situated at an altitude of 2,438 metres behind the Japfu mountain range, it is one of the most popular trekking spots in the North East.
- Dzukou valley and Japfu peak are located adjacent to the Pulie Badze Wildlife Sanctuary (Nagaland).
- There are no human habitations within the forests, but they are home to rare and ‘vulnerable’ (as per the IUCN Red List) birds - Blyth’s Tragopan (Nagaland’s state bird), the Rufous-necked Hornbill and the Dark-rumped Swift, among many others. Also found in the forests are endangered Western Hoolock Gibbons.
- It is covered with bamboo and other grass species. The valley harbours many species of flowering plants including the endemic Dzukou Lily- *Lilium chitrangada*.
- The valley is a source of conflict for ownership between local tribes and the state governments of Manipur/Nagaland.
- It is home to the Angami people.

### Forest Fires

#### Description:

- Wildfire, also called forest, bush or vegetation fire, can be described as any uncontrolled and non-prescribed combustion or burning of plants in a natural setting such as a forest, grassland, brush land or tundra, which consumes the natural fuels and spreads based on environmental conditions (e.g., wind, topography).

#### Causes:

- Wildfire can be incited by human actions, such as land clearing, extreme drought or in rare cases by lightning.
- One of the major reasons for forest fires in the north-east is slash-and-burn cultivation, commonly called jhoom or jhum cultivation.
- The fires happen between the months of January and March. The north-east has tropical evergreen forests and, unlike the dry deciduous forests of central India, these are not likely to catch fire easily.

#### Impact:

- Globally, forest fires release billions of tons of CO<sub>2</sub> into the atmosphere, while hundreds of thousands of people are believed to die due to illnesses caused by exposure to smoke from forest fires and other landscape fires.

#### Some Findings from the 2019 Report by the Forest Survey of India (FSI):

- About 21.40% of forest cover in India is prone to fires, with forests in the north-eastern region and central India being the most vulnerable.

- While the overall green cover has increased in the country, the forest cover in the north-east — particularly in Mizoram, Arunachal Pradesh and Nagaland — has decreased. Forest Fires could be one of the causes.

**Measures Taken:**

- National Action Plan on Forest Fires (NAPFF) 2018
- Forest Fire Prevention and Management Scheme.

**IMPORTANT FACTS FOR PRELIM****Harvest Festivals in India**

The harvest festivals like Lohri, Makar Sankranti and Pongal have recently been celebrated all across the country.

**Key Points****Makar Sankranti:**

- Makar Sankranti denotes the entry of the sun into the zodiac sign of Makara (Capricorn) as it travels on its celestial path.
- The day marks the onset of summer and the six months auspicious period for Hindus known as Uttarayan, the northward movement of the sun.
- As a part of the official celebration of 'Uttarayan', the Gujarat government has been hosting the International Kite Festival since 1989.
- The festivities associated with the day are known by different names in different parts of the country - Lohri by north Indian Hindus and Sikhs, Sukarat in central India, Bhogali Bihu by Assamese Hindus, and Pongal by Tamil and other South Indian Hindus.

**Lohri:**

- Lohri is primarily celebrated by Sikhs and Hindus.
- It marks the end of the winter season and is traditionally believed to welcome the sun to the northern hemisphere.
- It is observed a night before Makar Sankranti, this occasion involves a Puja Parikrama (revolve) around the bonfire with prasad.
- It is essentially termed as the festival of the farmers and harvest, whereby, the farmers thank the Supreme Being.

**Pongal**

- The word Pongal means 'overflow' or 'boiling over'.
- Also known as Thai Pongal, the four-day occasion is observed in the month of Thai, when crops such as rice are harvested and people show their gratitude to the almighty and the generosity of the land.
- Tamilans celebrate the occasion by making traditional designs known as kolams in their homes with rice powder.

**Bihu**

- It is celebrated when the annual harvest takes place in Assam. People celebrate Rongali/Magh Bihu to mark the beginning of the Assamese new year.
- It is believed that the festival started from the time when people of the valley started tilling the land. Bihu is believed to be as old as river Brahmaputra.
- Makaravilakku festival in Sabarimala:
- It is celebrated at the sacred grove of Lord Ayyappa at Sabarimala.
- It is an annual seven-day festival, beginning on the day of Makar Sankranti when the sun is in the summer solstice.
- The highlight of the festival is the appearance of Makarajyothi- a celestial star which appears on the day of Makar Sankranti on top of Kantamala Hills.
- Makara Vilakku ends with the ritual called 'Guruthi', an offering made to appease the god and goddesses of the wilderness.

**Maghi Mela**

For the first time in over several decades there will be no political conferences at the historic Maghi Mela.

- Maghi Mela is held in Muktsar, Punjab every year in January or in the month of Magh according to the Nanakshahi calendar.

- Nanakshahi calendar was designed by Sikh scholar Pal Singh Purewal to replace the Bikrami calendar, to work out the dates of gurpurab and other festivals.

**Key Points****About Maghi :**

- Maghi is the occasion when Sikhs commemorate the sacrifice of forty Sikhs, who fought for Guru Gobind Singh Ji.
- The eve of Maghi is the common Indian festival of Lohri when bonfires are lit in Hindu homes to greet the birth of sons in the families and alms are distributed.

**Significance**

- The day of Maghi is observed to honour the heroic fight of the Chali Mukte, or the Forty Liberated Ones, who sacrificed their own lives defending an attack by the Mughal imperial army marching in pursuit of Guru Gobind Singh.

**Historical Background:**

- The battle took place near a pool of water, Khidrane di Dhab, on 29th December 1705.
- The bodies were cremated the following day, the first of Magh (hence the name of the festival), which now falls usually on the 13th of January.
- Following the custom of the Sikhs to observe their anniversaries of happy and tragic events alike, Maghi is celebrated with end-to-end recitals of the Guru Granth Sahib and religious divans in almost all gurdwaras.

**DAILY ANSWER WRITING PRACTICE**

**Qns. "Recent amendments to the Right to Information Act will have a profound impact on the autonomy and independence of the Information Commission". Discuss. (150 words) (UPSC GS-2 Mains 2020)**

**Ans:**

The Right to Information (Amendment) Act, 2019 has made amendment in the status, salary and tenure of the Central Information Commissioners (CICs) and State Information Commissioners.

On the account of amendments made in the RTI Act, the civil society has raised concerns regarding accountability, autonomy and independence of the Information Commission.

**Amendments Done in the RTI Act**

- The amendment empowers the Central government to unilaterally decide the tenure, salary, allowances and other terms of service of Information Commissioners, both at the Centre and the States.
- Due to this, civil society asserts that this amendment may affect the autonomy of the information commission and force it to function as a mere department of the Central government.
- Also, the status of the Central Information Commissioners (CICs) has been brought on par with the Election Commissioners and the status of State Information Commissioners with the Chief Secretary in the States.
- However, the amendment has neglected the recommendation of the parliamentary standing committee that the Information Commissioner and CIC were to be made on par with the Election Commissioner and the Chief Election Commission, respectively.

**Impact of Amendments**

- The amendment allows the interference of the executive in the functioning of Information commissions which are quasi-judicial bodies.
- This will affect the doctrine of Separation of powers, which underscores this independence and is vital to our democratic checks and balances.
- Independent structures set up to regulate and monitor the government are vital to a democratic state committed to delivering justice and constitutional guarantees.
- Apart from this, the amendment also affects the constitutional principles of federalism, as now the central government can change terms of service of state information commission.
- Unilateral power of the central government will lead to centralisation of power, which is not conducive for the exercise of the freedom of expression and may lead to the decline of participative democracy.

**Conclusion**

The 2nd ARC held that RTI is the master key to governance. The RTI law has been a constant challenge to the misuse of power, a threat to arbitrariness, privilege, and corrupt governance.

These amendments may undermine the independence of Information Commissions and affect the transparency & accountability architecture in India. Therefore, in the pursuit of good governance, the RTI Act requires strengthening of the provisions rather weakening.

**DAILY QUIZ**

1. Consider the following statements:

1. Antibodies bind to the surface structures of bacteria or viruses and prevent their replication.
2. Nanobodies can be produced by bacteria as well as yeast.

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

2. Consider the following statements about Maghi Mela:

1. The Maghi Mela is celebrated to commemorate the forty sikhs who sacrificed their life fighting the Mughals.
2. It is held in the Month of Magh as per the Bikrami calendar.

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

3. Consider the following statements about **Lumpy Skin Disease**:

1. It is a viral infection found in cattle.
2. It spreads only through saliva and contaminated water and food.

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

4. Consider the following statements:

1. The Cabinet Committee on Security (CCS) is chaired by the Minister of Home Affairs.
2. CCS takes decisions with respect to the appointments in the national security apparatus, issues of national security and defence expenditure.

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. Consider the following statements:

1. The Two Dimensional Electron Gas (2DEG) is an electron gas that is confined to move only in two dimensions.
2. The 2DEG electron gas has the potential utility in electronics technology.
3. Spintronics is the study of the intrinsic spin of the electron and its associated magnetic moment.

Which of the statements given above is/are not correct?

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