

1. What are the socialist principles enshrined in the Indian Constitution? Discuss.**Approach**

A simple and straightforward question where in you need to discuss the socialist principles enshrined in the Indian constitution with some relevant examples from the constitution.

Introduction

India is a country with second largest population in the world but also it is a developing economy. The only reason of India being developing is unequal distribution of wealth as well as its dual economy character. Socialism becomes important in this background where social and economic equities are to be tackled in fulfilling India's growth story.

Body

- A socialist is someone who supports the political philosophy of socialism, which is governmental system that advocates community ownership and control of all lands and businesses rather than individual ownership.
- A Constitution is a set of fundamental principles according to which a state is governed. Indian constitution has different set of political philosophies in it. Many leaders of different political orientations took part in drafting this "Magna Carta of Socio-economic transformation".
- The word 'Socialist', added in the Preamble by 42nd Amendment Act, 1976 indicates the incorporation of the philosophy of "socialism" which aims to eliminate inequality in income, status and standard of living. By inserting 'socialist' to the preamble of the Constitution of India as a basic structure to the Indian Constitution.
- The Constitution had a socialist content in the form of certain Directive Principles of State Policy (esp. Arts. 39(b) and 39(c)), even before the term was added in 1976. However, the 'socialism' envisaged by the Indian Constitution is not the usual scheme of State socialism, which involves 'nationalisation' of all means of production, and the abolition of private property.
- Instead, Indian Socialism is 'democratic Socialism', influenced by Fabianism. It is a peaceful gradual transformation of the society in participation with the state and not against the state. Though the word 'Socialism' may seem to be vague, our Supreme Court has observed that its principal aim is to eliminate inequality of income and status and standards of life, and to provide a decent standard of life to the working people.

In this regard, the socialist principles enshrined in the Indian Constitution can be seen from the following points –

- Article 38 - To promote the welfare of the people by securing a social order permeated by social, economic and political justice and to minimise inequalities in income, status, facilities and opportunities.
- Article 39 - To secure (a) the right to adequate means of livelihood for all citizens; (b) the equitable distribution of material resources of the community for common good; (c) prevention of concentration of wealth and means of production; (d) equal pay for equal work for men and women; (e) preservation of the health and strength of workers and children against forcible abuse.
- Article 39A - To promote equal justice and to provide free legal aid to the poor.
- Article 41 - To secure the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement.
- Article 42 - To make provision for just and humane conditions for work and maternity relief.
- Article 43 - To secure a living wage, a decent standard of life and social and cultural opportunities for all workers. Also 43A states -To take steps to secure the participation of workers in the management of industries.
- Article 47 - To raise the level of nutrition and the standard of living of people and to improve public health.

The Indian Constitution, therefore, does not seek to abolish private property altogether but seeks to put it under restraints. Instead of a total nationalization of all property and industry, it envisages a 'mixed economy', but aims at offering 'equal opportunity' to all, and the abolition of 'vested interests'.

However, some have argued that the Indian state is deviating from its path of Socialism. The following have been cited as reasons behind this line of argument:

- The Indian state has failed to end mass poverty where 17% of the population still has incidence of multi-dimensional poverty in 2020.
- Adoption of neo-liberal economic policy: The new economic policy (1991) of liberalization, privatization and globalization has diluted the socialist credentials of the Indian state.
- Growth, which happened after the reforms of 1990s exacerbated inter-state and intrastate disparities. Further, this growth has been without any meaningful job creation.

Conclusion

Though the present conditions demand focus on market economy, socialism cannot be completely abandoned due to India's socio-economic realities and further being a part of basic structure doctrine, it should be upheld as the concept of basic structure as such give's coherence and durability to a Constitution for it has a certain intrinsic force in it.

2. Discuss the key features adopted in the Indian Constitution from the Government of India Act, 1935.**Approach**

Students are expected to write about the Government of India act 1935. And discuss the important key features of government of India act 1935 adopted in Indian constitution.

Introduction

The Government of Indian Act was passed by the British parliament in 1935 and came into effect in 1937. It was based on a report by a Joint Select Committee, led by Lord Linlithgow, set up the two houses of the British parliament. The report, in turn, was the result of the Joint Committee's scrutiny of the 'White Paper' – a scheme of constitutional proposals - prepared by the British government close on the heels of the Round Table conferences.

Body

The Act played a key role in the drafting of the Constitution of India, 1950. A significant chunk of the Constitution, particularly the administrative provisions, are borrowed from the Act.

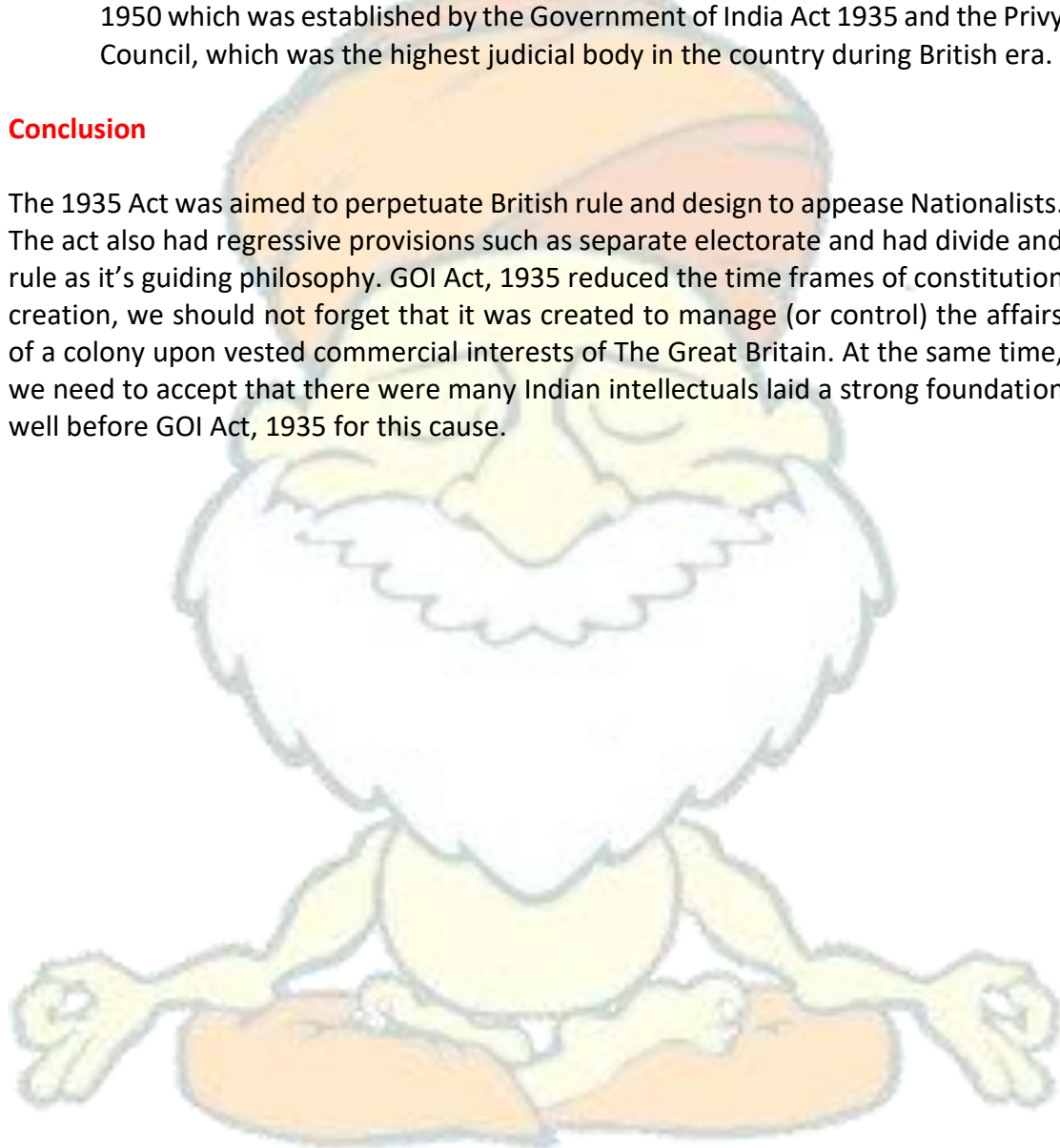
Key features adopted in Indian constitution from the Government of India act, 1935:

- It provided for the establishment of an All-India Federation consisting of provinces and princely states as units. The Act divided the powers between the Centre and units in terms of three lists Federal List (for Centre, with 59 items), Provincial List (for provinces, with 54 items) and the Concurrent List (for both, with 36 items). Residuary powers were given to the Viceroy. Indian constitution took this provision in 7th schedule and placed residuary power in centre.
- The provinces were allowed to act as autonomous units of administration in their defined spheres. Moreover, the Act introduced responsible governments in provinces, that is, the governor was required to act with the advice of ministers responsible to the provincial legislature. This provision later transferred into state governments power.
- Thus, the legislatures of Bengal, Bombay, Madras, Bihar, Assam and the United Provinces were made bicameral consisting of a legislative council (upper house) and a legislative assembly (lower house). Six States having a Legislative Council in addition to the Legislative Assembly through Article 169 of the Constitution.
- It extended franchise. About 10 per cent of the total population got the voting right. Article 326 in The Constitution of India 1949. Elections to the House of the People and to the Legislative Assemblies of States to be on the basis of adult suffrage the elections to the House of the People and to the Legislative Assembly of every State shall be on the basis of adult suffrage.

- It provided for the establishment of not only a Federal Public Service Commission but also a Provincial Public Service Commission and Joint Public Service Commission for two or more provinces. Articles 315 to 323 of Part XIV of the constitution, titled as Services Under the Union and the States, provide for a Public Service Commission for the Union and for each state. This was adopted from the government of India Act 1935.
- It provided for the establishment of a Federal Court, which was set up in 1937. India's Supreme Court succeeded the Federal Court of India on 28 January, 1950 which was established by the Government of India Act 1935 and the Privy Council, which was the highest judicial body in the country during British era.

Conclusion

The 1935 Act was aimed to perpetuate British rule and design to appease Nationalists. The act also had regressive provisions such as separate electorate and had divide and rule as it's guiding philosophy. GOI Act, 1935 reduced the time frames of constitution creation, we should not forget that it was created to manage (or control) the affairs of a colony upon vested commercial interests of The Great Britain. At the same time, we need to accept that there were many Indian intellectuals laid a strong foundation well before GOI Act, 1935 for this cause.



3. Was the constitution assembly a truly representative body? Critically comment.

Approach

As the directive is to critically comment, overall constitution of constituent assembly can be given in first half and then arguments can be put forward about the representation and its significance.

Introduction

It was in 1934 that idea of constitution assembly for India was put forward by M. N. Roy, a pioneer of radical democratism. In 1935, congress party officially demanded a constituent assembly to frame a constitution. This demand was finally accepted in principle by “august offer” of 1940. Finally, cabinet mission was sent to India. Mission rejected idea of two constituent assemblies, it put forth a scheme which satisfied demands of Muslim league.

Body

Composition of constituent assembly

- Assembly was constituted in November 1946, under a cabinet mission plan, according to which a scheme was formulated.
- The total strength of assembly was to be 389. Of these 296 were allotted to British India and 93 allotted to princely states.
- Out of 296 allotted to British India, 292 members were to be drawn from eleven provinces and four from, four chief commissioners provinces i.e., British Baluchistan, coorg, Delhi, Ajmer-merwara.
- Each province and princely state were to be allotted seats in proportion to their respective population. Roughly, one seat was to be allotted for every million population.
- Seats allocated to British India provinces were to be decided among three principal communities- muslims, sikhs and general i.e. all except muslims and sikhs, in proportion to their population.
- The representatives of each community were to be selected by members of that community in the provincial legislative assembly and voting was done to be by the method of proportional representation by means of single transferrable vote.
- The representatives of princely states were to be nominated by the heads of princely states.

It is therefore clear that assembly was partly elected and partly nominated body. More importantly, members were indirectly elected by the members of provincial assemblies, who themselves were elected on a limited franchise.

Was it a truly representative body:

- The elections to constituent assembly (for 296 allotted to British Indian provinces) were held in July- august 1946. The Indian national congress won 208 seats, the Muslim league 73 seats and small groups and independents got remaining 15 seats.
- The 93 seats allotted to princely states remained empty as they decided to stay away from constituent assembly.
- Although constituent assembly was not directly elected by the people of India on the basis of universal adult franchise. The assembly comprised of representatives from all sections of society.
- Hindus, muslims, sikhs, jains, parsis, anglo- Indians, Indian christians, SC's, ST's including women of all these sections were given representation in the assembly.
- Though not a universal adult franchise, congress made it a point to make this body more representative of diversity of India. Most of the barristers were framers of the constitution. But two most important of all stayed away from constituent assembly, Mahatma Gandhi and M. A. Jinnah.

Conclusion

Fact of matter is universal franchise was first given in independent India by constitution itself, but elections to assembly of constitution were not based on it. One might find paradox here, but we see voices of dalit, tribal women making their opinions in assembly. Leaders from all walks of life joined this humongous task of framing a constitution. Last but not the least, united, undivided and more integrated India is evident of strong constitution and its widespread legitimacy across all sections of India.

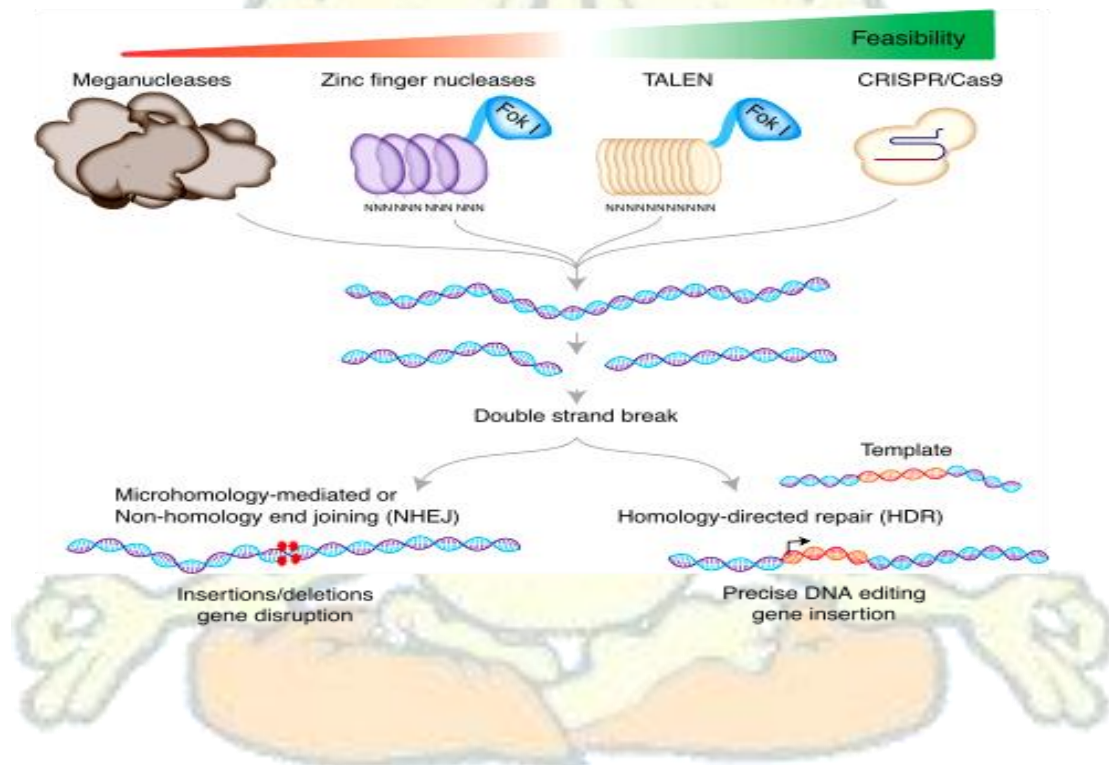
4. What is gene-editing? What are its medical applications? Discuss.

Approach

As the derivative is discuss so it necessitates a debate where reasoning is backed up with evidence to make a case for and against an argument and finally arriving at a conclusion.

Introduction

Genome editing is a technique used to precisely and efficiently modify DNA within a cell. It involves making cuts at specific DNA sequence with enzymes called ‘engineered nucleases. Genome editing can be used to add, remove, or alter DNA in the genome. By editing the genome, the characteristics of a cell or an organism can be changed. Genome editing uses a type of enzyme called an ‘engineered nuclease’ which cuts the genome in a specific place. After cutting the DNA in a specific place, the cell will naturally repair the cut. We can manipulate this repair process to make changes to the DNA in that location in the genome.



Body

MEDICAL APPLICATIONS OF GENE EDITING

- GENOME EDITING FOR DISEASE MODELLING AND GENE THERAPY: Targeted gene modification via chimeric genome editing tools (e.g., ZFNs, TALENs, and CRISPR/Cas9) is a powerful method to assess gene function and precisely manipulate cellular behaviour and function.

- **FOR RESEARCH:**
Genome editing can be used to change the DNA in cells or organisms to understand their biology and how they work.
- **CANCER RESEARCH:**
Oncogenes and mutant tumour suppressor genes provide outstanding opportunities for the use of genome modulating approaches.
- **CARDIOVASCULAR DISEASE:**
Currently, the establishment of in vivo CVD models with gene editing technology and the in-depth analysis of CVD pathogenic genes as well as their molecular mechanisms have made it possible to test the ability of gene therapy to control specific gene expression and improve gene functions. With the help of genome editing technologies, various research models of cardiovascular conditions have been created.
- **TO TREAT DISEASE:**
Genome editing has been used to modify human blood cells that are then put back into the body to treat conditions including leukaemia and AIDS. It could also potentially be used to treat other infections (such as MRSA) and simple genetic conditions such as haemophilia.
- **SOMATIC THERAPY**
When a clear genetic contribution has been identified for any particular condition, genome editing of a patient's own cells can be considered as a possible therapy.
- **FOR BIOTECHNOLOGY:**
Genome editing has been used in agriculture to genetically modify crops to improve their yields and resistance to disease and drought, as well as to genetically modify cattle that don't have horns.

Conclusion

The advent of programmable nucleases can induce very high levels of modification in arbitrarily selected genomic targets. The genome editing technology is simple enough that it will certainly be used for reproductive editing in the foreseeable future. International discussions and assessments of genome editing and its implications are under way, but are still at early stages. The prospects for beneficial medical uses of genome editing are bright, and research is being pursued very broadly. How these benefits are ultimately employed will depend on efforts both inside and outside the laboratory and the clinic.

5. What are stealth frigates? How do they work? Discuss.

Approach:

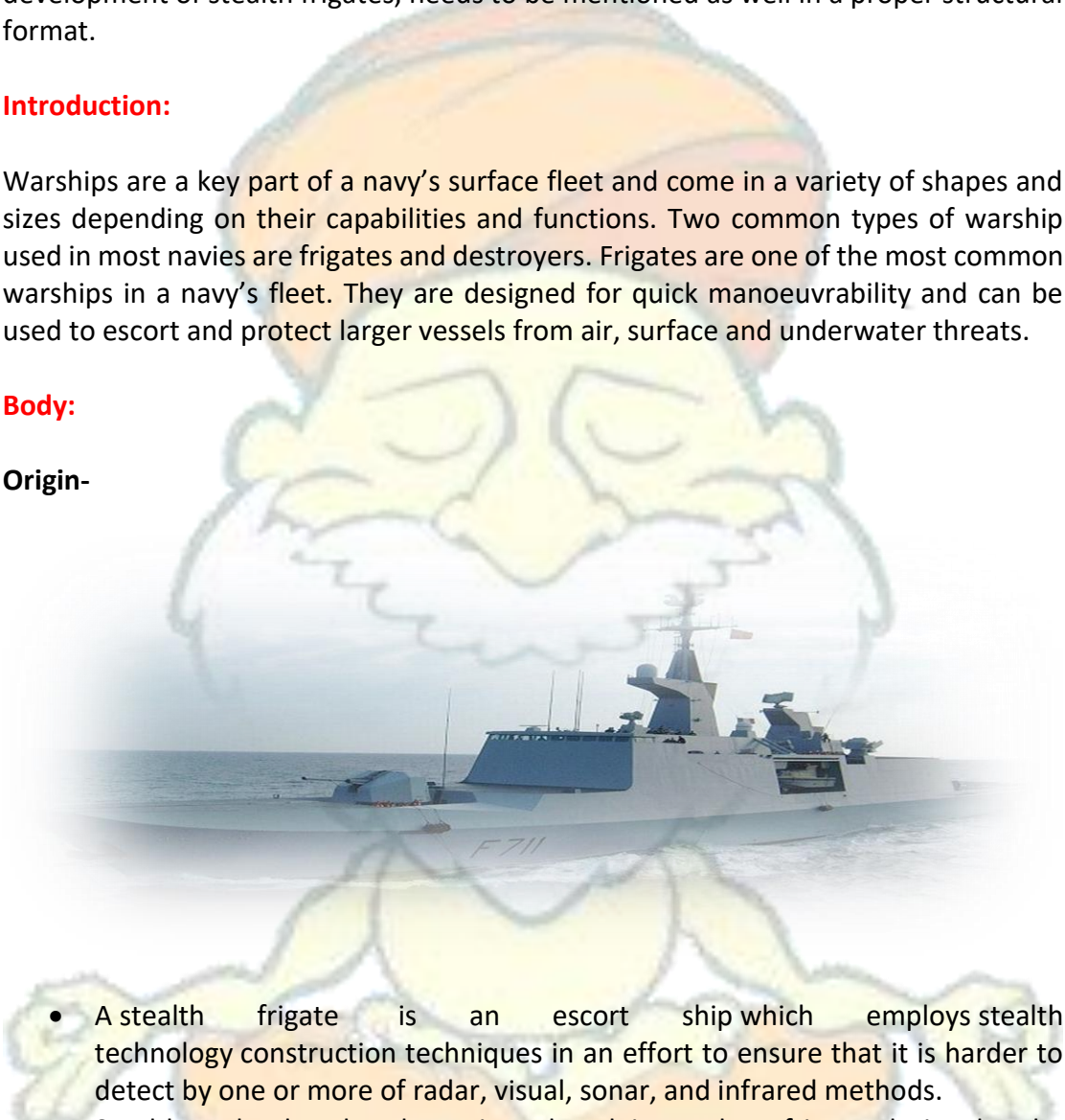
The question demands a thorough explanation of stealth frigates, in terms of their origin, mechanism of functioning and use in warfare, also how has India worked in the development of stealth frigates, needs to be mentioned as well in a proper structural format.

Introduction:

Warships are a key part of a navy's surface fleet and come in a variety of shapes and sizes depending on their capabilities and functions. Two common types of warship used in most navies are frigates and destroyers. Frigates are one of the most common warships in a navy's fleet. They are designed for quick manoeuvrability and can be used to escort and protect larger vessels from air, surface and underwater threats.

Body:

Origin-

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- A stealth frigate is an escort ship which employs stealth technology construction techniques in an effort to ensure that it is harder to detect by one or more of radar, visual, sonar, and infrared methods.
 - Stealth technology has been introduced in modern frigate design by the French La Fayette class design. Frigate shapes are designed to offer a minimal radar cross section, which also lends them good air penetration; the manoeuvrability of these frigates has been compared to that of sailing ships. Examples are the Italian and French Horizon class with the Aster 15 and Aster 30 missile for anti-missile capabilities, the German F125 and Sachsen-class frigates, the Turkish TF2000 type frigates with the MK-41 VLS, the Indian Shivalik, Talwar class and Nilgiris classes with the Brahmos

missile system and the Malaysian Maharaja Lela-class frigate with the Naval Strike Missile.

How do they work-

- One of the most important functioning of the stealth frigate is to avoid detection by the enemy force while performing its duties and for which stealth technology plays an important part. In designing a ship with reduced radar signature, the main concerns are radar beams originating near or slightly above the horizon (as seen from the ship) coming from distant patrol aircraft, other ships or sea-skimming anti-ship missiles with active radar seekers. Therefore, the shape of the ship avoids vertical surfaces, which would perfectly reflect any such beams directly back to the emitter. Retro-reflective right angles are eliminated to avoid causing the cat's eye effect. A stealthy ship shape can be achieved by constructing the hull and superstructure with a series of slightly protruding and returning surfaces. This design was developed by several German shipyards, and is thus extensively applied on ships of the German Navy.
- Also, cavities that present a horizontal face are to be eliminated since they act like a trap and are very visible to radar. To get around these limitations many ships use features such as panels that cover reflective surfaces or use alternate designs of hardware. Also, every effort must be made to have the smallest gaps on the ship as possible. Hull shapes include tumblehome hull designs which slope inward from the waterline, and small-waterplane-area twin hulls (SWATH) which allow for better stability when using a tumblehome hull. These RCS design principles were developed by several navies independently in the 1980s using work done on aircraft RCS reduction as the starting point.
- Noise reduction plays a huge role in naval stealth because sound travels much better in water than air. Some of the techniques used include muffled exhaust systems, modified propeller shapes, and pump-jets. The shape of the hull can also have a great effect on the reduction of the noise from a ship. Another major element is signal emission control. Modern warships emit much electromagnetic radiation in the form of radar, radio, and even bleed-off from the ship's electrical systems. All of this can be used to track a ship and thus modern stealth ships often have a mode that switches off many of the electronic emissions, the downside of course is that the ship then has to rely on passive sensors and can't easily send messages further than line of sight.
- Also of great importance is thermal emissions. A heat signature can make a ship stand out like a candle in a dark ocean making it easier to spot and because it is possible to see infra-red emissions through features that would normally hide a ship such as fog, or a smoke screen, many detection platforms like patrol aircraft, UAV's, and satellites often have the ability to see multiple bands in the infrared spectrum including heat. This necessitates the control of these emissions. The most common way is to mix any hot gasses emitted by the main source of heat which is the engines exhaust with cold air to dilute the signature and make it harder to pick out the ship from the background warmth. Another

method vents the exhaust into the water though this increases the ship's acoustic signature.

In India-

- The Talwar-class frigates or Project 11356 are a class of stealth guided missile frigates designed and built by Russia for the Indian Navy. The Talwar-class guided missile frigates are the improved versions of the Krivak III-class (Project 1135) frigates used by the Russian Coast Guard.
- Indigenous development of stealth frigates is in development in recently launched project 17A, Under this project A total of seven ships will be built at Mazagon Dock and GRSE. The ships have been named after the first major warships to be built in India, which in turn were named after hill ranges in India.

Conclusion:

Stealth technology is becoming an important part of modern warfare and navies all around the world are in process of development of modern stealth ships because of the changing nature of warfare where sea lanes and trade routes are under constant threat, India is no way behind the indigenization of this technology because of the evolving threat dynamics in its neighbourhood.

