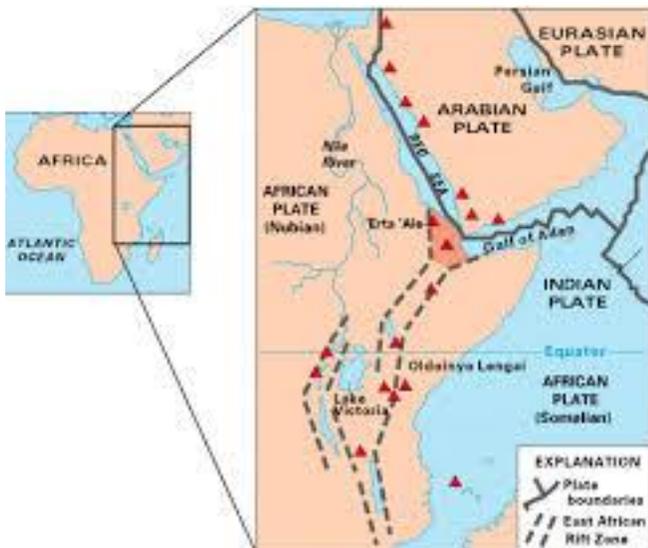


# MODEL ANSWERS

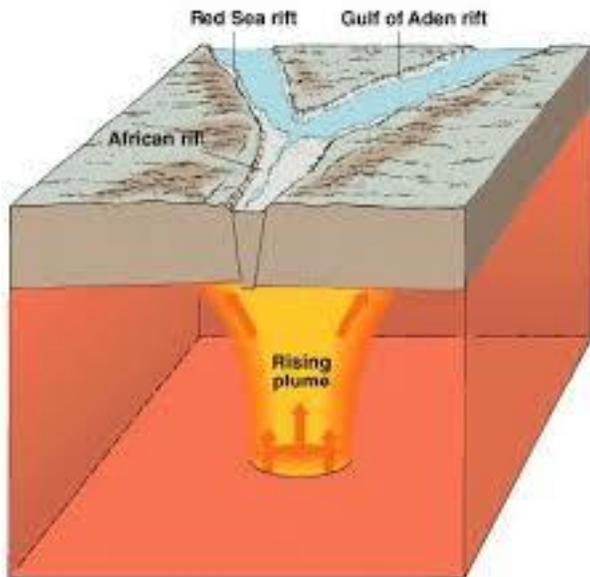
Discuss the origin of East African Rift Valley? Explain the characteristics of EARV and its uniqueness.

The East African Rift called as EAR is perhaps the most important tectonic feature of Africa.

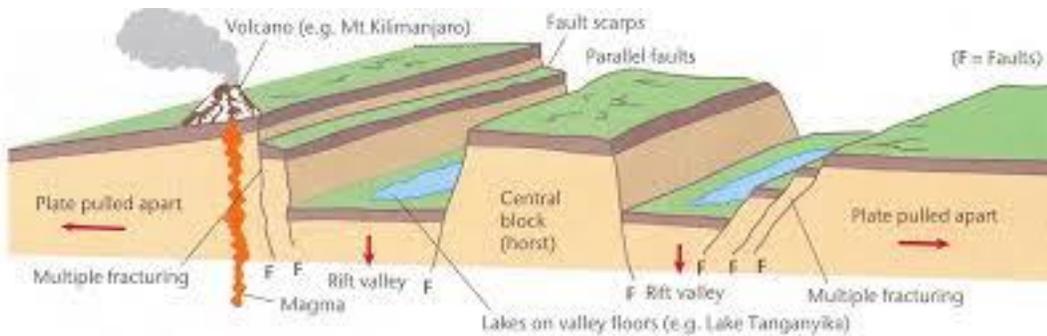
The East African Rift (EAR Valley) is an active continental rift zone in East Africa. The East African Rift Valley begins from Dead Sea to Lake Malawi. In Africa, the northernmost extremity is Lake Assal.



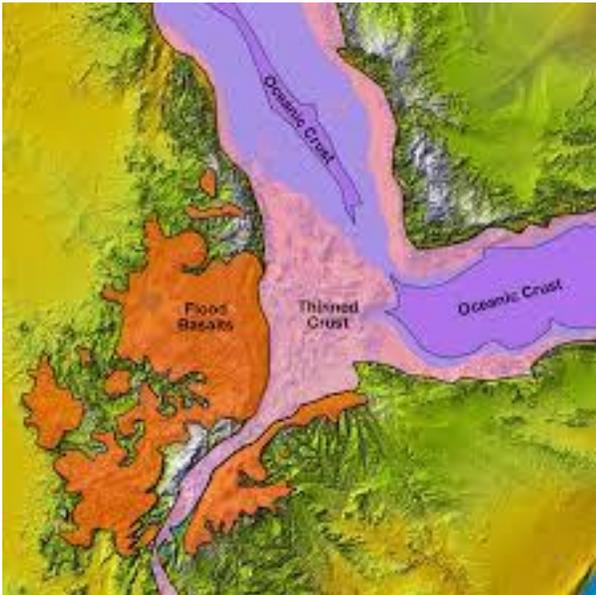
The rift is a narrow crack along which two plates move apart, and along which the African Plate is in the process of splitting into two tectonic plates, called the Somali Plate and the Nubian Plate.



The divergence has led to emergence of a narrow rift valley, which is a normal or step fault extending over thousands of kilometers.



It is along the EARV that Africa in future is going to be split into two separate continents.



### **The EAR consists of two main branches.**

The Eastern Rift Valley includes the Main Ethiopian Rift, running eastward from the Afar and then south as the Kenyan Rift Valley. The East African Rift Valley comprises of the Danakil depression and its volcanoes.

### **The Western Rift Valley**

The Western Rift Valley includes the Albertine Rift, continuing south in the valley of Lake Malawi. There are many crater lakes in the Albertine rift.

The East African Rift Zone includes a number of active as well as dormant volcanoes, among them: Mount Kilimanjaro, Mount Kenya, Mount Nyiragongo, Mount Meru as well as the Crater Highlands in Tanzania. Although most of these mountains lie outside of the rift valley, it was the process associated with EAR that created them.

### **Active volcanoes of Africa**

Active volcanoes of Africa include Erta Ale, DallaFilla, and Ol Doinyo Lengai. The Erta Ale is the only permanent active volcano. The Ol Doinyo Lengai volcano is the coldest lava eruption in the world and also the only active natrocarbonatite volcano in the world. The magma contains almost no silica, making the flow viscosity extremely low. Its lava fountains crystallize in midair then shatter like glass. Nyirongogo on the Tanzanian-Zaire border is the largest lake filled with lava, hence called a lava lake.

There are good number of boiling water lakes in the African Rift Valley.

The EAR is the largest seismically active rift system on Earth today. It is along the East Africa Rift Valley that Africa is going to be split into two different continents. The majority of earthquakes occur near the **Afar Depression**, with the largest earthquakes typically occurring along or near major border faults.

The Rift Valley in East Africa has been a rich source of hominid fossils that allow the study of human evolution.

The Rift Valley houses two of the largest national parks in the world-the Serengeti and Masaimara. The scene of hunting and be hunted is seen to be believed.

There are many linear lakes that dot the entire of EARV- Lake Assal, Lake Tana, L. Albert, L. Turkana, Lake Edward, etc.

**Across the EARV escarpment lies the Victoria falls**

---

---

Victoria falls over Zambezi river flows in a spectacular gorge. It is a scarp waterfall that falls in the form of a roar, which can be heard from over a kilometer. The Zambezi river cuts a deep wide channel as it flows along the Zambia-Zimbabwe border. The waterfall has an almost permanent rainbow accompanying it.

## 1. What is an impact event and what its geological significance?

An impact event is a collision between celestial objects causing measurable effects. Impact events have physical consequences and have been found to regularly occur in planetary systems, though the most frequent involve asteroids, comets or meteoroids and have minimal impact. **When large objects impact terrestrial planets like the Earth, there can be significant physical and biospheric consequences, though atmospheres mitigate many surface impacts through atmospheric entry.**

1. Exogenesis-
2. effect on the dynamo mechanism at a planet's core responsible for maintaining the magnetic field \
3. may create a megatsunami
4. can cause **mantle plume** (volcanism) at antipodal point
5. **Biospheric effects-**

**Evidences for such an impact-**Unusually **high concentrations of iridium.**

Multi directionally shocked quartz (**coesite**),

**Anomalies in chromium isotopic ratios** found within the K-T boundary layer strongly support the impact.

6. **Sociological and cultural effects: End of civilization,**

## 1. What has been the impact of dams on displaced people? What can be a sustainable means of negating their impacts?

One important issue which has triggered off controversy, especially in India has been the impact of the dams on the displaced people. Different sets of people are affected by the project:

1. Those who are directly displaced due to acquisition of their land and property. In some cases a part of the property is acquired and in such cases the person concerned cannot claim resettlement.
2. Those who are not faced with direct acquisition, but are affected due to changes in the land use pattern as a result of the project. They include the following types of people:
  - a) Those who have lost access to natural resources on which they were traditionally dependent. Consequently they are forced to migrate in search of livelihood.
  - b) Those who are affected because the people on which they depended for their livelihood have been displaced.
  - c) The uprooted persons who are rehabilitated in another place have to undergo the entire process of resocialisation and adjustment in an unfamiliar environment. Traditional social relations and community networks are broken down resulting in physical and psychological stress. It also causes an economic setback due to lack of suitable employment opportunity in the new area resulting in impoverishment and insecurity. In many cases rehabilitation has been inadequate and unplanned with little or no share in the

benefits from the project that has caused displacement. In addition a hostile population in the new area aggravates the trauma..

- d) In India, it has been noted that the trauma begins before the process of displacement actually takes place.
- e) That land for projects is acquired under the Land Acquisition Act, 1894, (The Land Acquisition Resettlement and Rehabilitation Bill-2011 has not yet been tabled in the Parliament and is still under review) displacing the people occupying the land.

One sustainable solution is the construction of small dams. Small dams have many advantages:

1. They are cheaper and less risky for the investors and are hence unlikely to bankrupt a nation or a company;
2. Smaller the dam, it is more likely that the benefits of its construction and operation can be in the hands of the local communities rather than outsiders;
3. Small dams can provide electricity to remote villages which the national grid may never reach;
4. Water can be provided to local farmers, rather than being diverted to cities and farmers elsewhere, thereby satisfying the riparian demands;
5. Displaced people, being less in number can be compensated and rehabilitated more easily;
6. The silt in the small reservoirs can be dug out and spread over nearby land, thereby maintaining the storage capacity of the reservoir as well as the fertility of the fields;
7. Fewer people are at risk when they fail.

The other is use Local Wisdom, and local water harvesting techniques suited to different eco geographical regions.

### 1. Explain the relevance of bottom-up and top-down approaches in the development of agrarian economy.

Bottoms up approach refers to development of agriculture by picking up every issue at the grass root level, understanding them and then developing them at the level to improve agricultural efficiency, productivity and diversity without sometimes actually affecting sustainability. Bottoms up approach also refer to taking into account the local resources, the local management and the local wisdom used in managing and sustaining the resources. Bottoms up approach have a better reading of agricultural problems, agricultural development on a sustainable basis with a sustainable development of resources and equally conflict resolution. The recent emphasis in India on Bio farming is an example of bottoms up approach. In a country as diverse as India a bottoms up approach has a greater relevance, which actually respects local variations in every agro climatic indices as well as every local cropping pattern reflective of its land use.

Top down approach refers to creating and devising policies that will develop agriculture as per the needs of country, economy and society. The top down approach is mostly a policy intervention that is meant with a goal with an aspiration and this may or may not gel up with the local people the local upliftment of agriculture and the local ethos.

Sometimes it does tend to ignore the local geographical conditions and the associated factors in order to bring growth as it happened with so many agricultural development programmes of the country. The emphasis on Green Revolution, with its attendant use of HYVs, construction of dams and reservoirs as a policy measure to manage water resources in India have all been examples of Top down approach. Top down approach in India has so far not paid dividends nor has improved agricultural efficiency, despite improving agricultural productivity.

---

---

## 1. Explain how waterfalls can form? Bring out their impact on local geography and ecology.

**Waterfalls** result because of many differing situations and geological conditions. Their formation can be because of a variety of reasons. They form-

- due to the differential erosion of soft rocks when hard and soft rocks lie vertically, i.e., when a transverse bar of resistant rock lie across the river's course, e.g., the Nile cataracts, Niagara, Kaieteur Falls (Guyana), Gibbon Falls (Yellowstone National Park, Wyoming);
- due to plateau scarp formation caused by upliftment and resultant steep precipitous slope, allowing the water to fall, e.g., Livingstone falls, Aughrabies falls, Gersoppa falls in India.
- due to faulting later forming a fault-line scarp such as Victoria falls on the Zambezi River.
- due to formation of glacial hanging tributary valley, e.g., Yosemite Falls, California.
- due to a river forming a valley within a valley (see Rejuvenation), such as, Hundroo waterfall, Ranchi, India.
- due to formation of hanging valleys (see Glacial Topography) when the tributary stream, which is at higher level joins the main stream.

### **Waterfalls also form**

- along the edge of a cliffed coast; e.g., Litter Water on a Devon coast near Hartland.
- along the long profile of river when the rapids recede.

These are liable to occur at any part of the river course, but they are most numerous in the mountain course where changes of gradient are more abrupt and also frequent.

**Cascades** represent all degrees of slopes ranging between the two extremes of a waterfall and a rapid. These are small waterfalls or a stepped series of small waterfalls and rapids.

## 1. Why is Svalbard significant from Climatic, geological and economic viewpoint to the region as well as to the whole of the world.

Svalbard is located north of the Arctic Circle it experiences midnight sun in summer and polar night in winter. At 74° north, the midnight sun lasts 99 days and polar night 84 days

Glacial ice covers 36,502 km<sup>2</sup> or 60% of Svalbard; 30% is barren rock while 10% is vegetated. During summer, it is possible to ski from Sørkapp in the south to the north of Spitsbergen, with only a short distance not being covered by snow or glacier. Kvitøya is 99.3% covered by glacier.

The landforms of Svalbard were created through repeated ice ages, when glaciers cut the former plateau into fjords, valleys and mountains.

Svalbard is part of the High Arctic Large Igneous Province, and experienced Norway's strongest earthquake on 6 March 2009, which hit a magnitude of 6.5

Svalbard has permafrost and tundra, with both low, middle and high Arctic climate reflected best in its climate. Only those areas which defrost in the summer have vegetations, which accounts for about 10% of the archipelago.

There is little precipitation, giving the archipelago a steppe climate, plants still have good access to water because the cold climate reduces evaporation. The growing season is very short, and may last only a few weeks

---

5. Describe in brief about the Thanjavur School of paintings. How Thanjavur paintings are so similar and different from Kishangarh school.

Thanjavur school of paintings gained prominence under the patronage of Thanjavur's Sarbji II and Shivaji II. These paintings were made for rituals and worship. Vishnu, Shiva and Krishna re favourite subject. The paintings are made on jack wood pasted with unbleached cloth to which a mixture of limestone, chalkpowder, gum and honey ae applied in layers on a sketch of the icon. The figures are static and housed in centre of board, inside beautifully decorated arches or curtains. The background is always painted red or green.

There is similarity and dissimilarity between Thanjavur painting and Kishangarh painting. Krishna and Radha is favourite theme of both the paintings. Krishna is shown blue-skinned. Natural colours are used in both the paintings. While Kishangarh is influenced by Jaina school and Mughal while Thanjavur school is influenced to Hinduism wherein people turned to god and goddess for solace.

Q3. Bring out the ideological basis of the Moderate-Extremist divide in the Indian National Congress. Was it detrimental or complimentary to the national movement.

**Ans.** In Indian National Movement the role-played by Moderates (1885-1905) and extremists (1905-1919) is an important part in history as their ideology influenced the mindset of people from two different angles.

- **Moderates** were staunch believers in liberalism and 'moderate' politics. Thus the moderate leaders were convinced believers in the politics and in the policy of gradualism and constitutionalism.
- Congress was dominated by affluent upper middle class intelligentsia. They were mainly from cities who already had little contact with the masses.
- They believed, Britain would help them to acquire the capacity to govern them.
- Moderates looked upon the British Government as an ally. The moderates sincerely believed that India's progress could be possible only under the supervision of the British. The congress demanded few concessions and no freedom from the British rule.
- While the extremist talked of democracy, constitutionalism and progress and talked of broadening the social case. They highlighted the negative role of Britain in India.
- Hence the Moderates'/Philosophy of co-operation gave place to non-cooperation, passive resistance, mass agitation etc. The rise of the Extremist ideology proved to be somewhat of reactionary development.

Though the revivalist dimension of Extremist politics was mainly directed against foreign rulers, it developed an unhealthy interrelationship between religion and politics apart from encouraging communalism and Muslim separatism.

The two ideologies mutually contradictory to each other finally led to split of Congress 1907 this divided national movement. After the partitions of Bengal Moderates realized the politics of British. Though the ideology of moderate and extremists differed yet there goal remained same and finally contributed in evicting British from the governance.

---

---

**Q.8.: "Tagores' poetry is a written record of his religious experience." Elucidate.**

**Ans. Rabindra Nath Tagore-** The 1<sup>st</sup> Non-European to win a Nobel Prize, the man who composed India's national anthem, was man of open and cosmopolitan mind.

- His poetry had a dynamic quality-it was rooted in his history and developed through different phases to maturity.
- His poetry is also second of his religious experience.
- Which in its mature phase, gives his own view of how religion should be.
- Tagore tried to find inner calm and explained themes of divine and human love.
- His poetic tradition was also influenced by the social circumstances that existed around him-eg. Condition of rural labourers, peasants etc. (eg in Chitra).
- Throughout Tagore's work, there is a musical element, although he rarely refers to God directly.
- He was influence by:-
  - Atavistic mystic of Vyas.
  - Rishis of upanishads.
  - Bhakti Sufi mystics like Kabir and Ramprasad.
  - Mystic Baul tradition.
  - Bhagvatgita.
- Its works like "Man within the heart" or "living God within", connected with divinity through appeal to nature.
- His mystic writings and exemplary works, inspired and influenced many writes the west- Yeats, Naluda etc.
- These was also a sense of ambiguity about religious experience, and through his poetry Tagore sought path of spiritual self realisation.
- He had importance to 'service to humanity' to establish contact with god.
- In spite of his mysticism, Tagores' affection of God was inspired not by fear but love "(leave this chanting and singing and telling of beads)". ""(Where the mind is without fear...)"

**Q.7: The changing economics of time are affecting the family system in India.**

**Ans.** India family system has undergone drastic change in response to development in terms of industrialization, and urbanization, leading to accelerated rate of rural-urban migration, diversification of gainful economic activities and individual-friendly property laws, have had consequential impact in terms of drastic reduction in size of family in the country.

The family is now essentially democratic and most of the decisions in the family are taken collectively. However, the extent of autonomy and democracy may vary from region to region, community to community and caste to caste.

---



The family economic unit has always been dependent on specialized labour done by family members. The family was a multi-generational producer with capital and hand provided by older generation and labour provided by younger generations. Goods were produced not only for home consumption but to sell and trade in the market as well. Family production was not only limited to agricultural products but they also produced manufacturing goods and provided services.

The industrial revolution, starting in the nineteenth and going into the twentieth century is seen as the force that changed the economic family and is basically responsible for the "modern family".-a nuclear family

Q.8: Caste panchayat had been in place for many years and formed an integral institution of rural society. They have been in news for bad reasons. Do they still hold importance in changing dynamics of rural area? Discuss.

**Ans.** Caste panchayats are caste-specific juries of elders in villages or higher level communities in India.

Some of the major offences which the caste council takes cognisance are breach of the caste rules, failure to fulfil marriage agreements or conditions, marriage that violates the caste norms and rules, divorce without mutual consent, delopement of one member of caste with members of other caste, breaches of rules of endogamy and exogamy, dispute between laws, inter-dining with those who are outcaste, refusing to pay community subscription.

The order of caste Panchayat ran supreme in all spheres of life of its members. However, with changing times, the effectiveness of these bodies has waned. Neither these bodies nor their verdicts are legally recognised by modern courts of law. The reason ascribed to their gradual disappearance include-change in circumstances; improved mobility and interaction among people; establishment of statutory courts; introduction of secular village panchayats with legal as well as constitutional backing; modern laws banning the evil practices; government support/protection to intercaste marriages; stringent government action over honour killings; abolition of untouchability.

Nevertheless, these developments have been hardly able to undermine some of the panchayats such as khaps in northern India. In villages, still people are fearful of excommunication. In recent times, the Khap system has attracted criticism from groups, citing the stark prejudice that such groups allegedly hold against others. The All India Democratic Women's Association has reported cases where the Khaps are alleged to have initiated threats of murder and violence to couples who marry outside of the circle.

The Supreme Court of India has declared Khap Panchayats to be illegal because they often decree or encourage honour killings or other institutionalised atrocities against boys and girls of different castes and religions who wish to get married or have married.

1. Critically analyze the consequences India had to face as a result of adoption of socialism as one of its constitutional tenet?

### **ANSWER DIRECTIVES**

The students are expected not to out rightly criticise Socialistic pattern but to be a bit subtle, moderate and guarded in the sense that they have to bring out the finer nuances of socialism and how is that it has led to a balance.

Thus some critical analysis is going to be the main plank of the discussion of the answer.

2. Critically, analyze India and China in light of its political economic philosophies?

**Ans.** China is more like state-sponsored capitalism. China too followed Indian-type socialism for decades, resulting in massive failures. It's not until Deng Xiaoping opened up the economy and harnessed some entrepreneurial spirit that the Chinese gained a foothold in international business. Chinese socialism is now restricted to state-controlled services and not state-run corporations.

In India, on the other hand, socialism was more about modes of production through state-run plants, factories and banks. When India finally opened its gates in 1991, it failed to generate enough low and mid level enterprises to sustain state-controlled services which started getting near-bankrupt with time. Now, India neither has socialized

---



---

services nor state-directed capitalism (because people don't have enough of a safety valve to embark on capitalist ventures).

Apart from communist ideologies China changed a lot. China that is People's Republic of China with single party political administration. Whereas India have multi party coalition government with federal features. If India tried to become like China, that's the end of democracy and freedom of Indians.

China has the advantage of being a unitary state which has often not been recognized. India has through its history been ruled by many authorities and sometime none, but it has had a social stability which is remarkable. In India's case the enveloping unity was provided by the Hindu social structure, especially the caste system that determined the basis on which interregional mobility could be conducted. Indeed the caste system proved to be so powerful that even among the Muslims and Christians a caste hierarchy took root and developed. While the concept of the Asiatic Mode of Production is much derided nowadays, its essence was about a society in which the state was epiphenomenal and the peasant society went on impervious to changing rulers. China on the other hand strong as it became subject to spasmodic breakdowns which lasted several years.

Sometimes it is said that China is *narrow economy with an open mind* and for India, it's *open economy with narrow mind*

### Q1. Explain the social conditions that existed during industrial revolution, and the factors that led to the emergence of such conditions.

**Ans.** The Industrial revolution marks a major turning point in history. It influenced every aspect of daily life in some way is due to transition to new manufacturing processes like switching from hand production methods to machines, new chemical manufacturing & steel production processes, increased use of steam power, water power etc.

The industrial & economic developments of the industrial revolution brought significant social changes. It came with an increase in population & urban growth as well as new social class. It was the result of growing number of people to urban centres in search of employment. **Some** individuals became very wealthy, but some lived in horrible conditions. **The** class of prosperous industrialists, ship owners & merchants dominated, accumulating great wealth, but at the same time the working **class** had to live with bare minimum amenities in overcrowded environments.

The role of women in society also changed. Lower class women were compelled to take up poorly paid jobs. Middle and upper class women were confined to household - either working themselves or assisting servants. It was unlike of the 16th century, when women were engaged in many aspects of industry & agriculture giving them an economic & equal role as that of the other gender. However, as women stepped out to work in industries, they became more liberal & their clothing style also changed, shifting from **ill** fitted clothes to work- friendly comfortable clothes.

The most new & cherished effect of industrial revolution was on living standards of the people. People started **earning** and spending more leading to influx of money in the market. However these changes came late in the 19th century. During the **starting** phase of industrial revolution, living conditions became horrible. More & more people came to the city to work as labourers. They were made to work for longer hours & paid poorly. There was little access to fresh air & little provision for obtaining clear water or to live in a clean environment. The employers manhandled people. The **basic** facilities & nutrition of people were in a degraded state. All these led to political **urgency** and finally after the abolition of **slave** trade in 1807, the great reform **act** was passed in 1832. After the passing of the act, the conditions of labour class improved and the living standards of people took an upsurge as their purchasing power increased.

---

---

## **KRAA CANAL**

---

### **Context**

The Strait of Malacca is a major bottleneck in China's global ambitions. 80 per cent of China's oil supplies pass through the Malacca Strait, apart from forming its trade routes to the Middle East and Europe. But India's geographical position is such that it can easily block the Western side of the Strait of Malacca.

China had been eyeing to construct a 120-kilometre mega canal cutting through the isthmus of Kra in Thailand. It would have helped Beijing in solving the 'Malacca Dilemma' as it had opened the South China Sea to the Indian Ocean, bypassing the Strait of Malacca.

### **Thai response**

Thailand, which once was the strongest ally of China in the South China Sea region, had decided to not only postpone the procurement of two submarines from China but has also put on hold the Chinese proposal for building a canal in the Bay of Bengal and replaced it with its own project.

If Thailand chooses one of three quad members interested in the project, it will be a heavy blow to China's ambitions to dominate the region.

Kraa peninsula can be engineered to make a canal.

### **Concept**

The Thai Canal, also known as Kra Canal or Kra Isthmus Canal, refers to proposals for a canal that would connect the Gulf of Thailand with the Andaman Sea across the Kra Isthmus in southern Thailand. It is envisaged that such a canal would improve transportation in the region, similar to the Panama Canal and Suez Canal.

The canal would provide an alternative to transit through the Straits of Malacca and shorten transit for shipments of oil to Japan and China by 1,200 km. China refers to it as part of its 21st century maritime Silk Road.

### **Geography**

Several canal routes have been proposed: The original Kra Canal was envisioned as cutting through the Kra Isthmus between Ranong and Chumphon, the narrowest part of the South, a distance of about 50 kilometres. Other routes proposed include a route in southern Thailand connecting Bandon Bay near Surat Thani with Phang Nga Province. Another is across Nakhon Si Thammarat Province and Trang Province. The seemingly preferred version of the Kra Canal project would dig through Krabi, Trang, Phattalung, Nakhon Si Thammarat and Songkhla, a distance of 128 kilometres.

The Chinese planned called for construction over ten years employing roughly 30,000 workers at a cost of between US\$20–25 billion.

### **Opposition to Canal**

Canal opponents have raised several objections to the construction of a canal:

- A canal will divide the country physically and pose a security risk. It is feared that a canal would separate the four southernmost provinces from the rest of Thailand and allow secessionist movements to further develop.
  - Demand for transit will not meet expectations.
  - The excavated soil will need to be dealt with.
-

- Environmental concerns
- Moreover, there will be Impact on Malaysia and Singapore. The canal would compete directly with ports in the Strait of Malacca area, including Port Klang, Tanjung Pelepas, and Singapore.

Singapore has expressed concerns about an adverse impact on its economy from the proposed canal.

### **Analyze China's position in the world from the viewpoint of REE production and the impact of various REE on the world economy.**

A rare-earth element (REE) or rare-earth metal (REM), as defined by IUPAC, is one of a set of seventeen chemical elements in the periodic table, specifically the fifteen lanthanides, as well as scandium and yttrium. Scandium and yttrium are considered rare-earth elements because they tend to occur in the same ore deposits as the lanthanides and exhibit similar chemical properties.

Rare-earth elements are cerium (Ce), dysprosium (Dy), erbium (Er), europium (Eu), gadolinium (Gd), holmium (Ho), lanthanum (La), lutetium (Lu), neodymium (Nd), praseodymium (Pr), promethium (Pm), samarium (Sm), scandium (Sc), terbium (Tb), thulium (Tm), ytterbium (Yb) and yttrium (Y).

Today, the Indian and South African deposits still produce some rare-earth concentrates, but they are dwarfed by the scale of Chinese production. In 2010, China produced over 95% of the world's rare-earth supply, mostly in Inner Mongolia, although it had only 37% of proven reserves;

Specifically, China has announced regulations on exports and a crackdown on smuggling. China announced plans to reduce its export quota to 35,000 tons per year in 2010–2015 to conserve scarce resources and protect the environment. China "further wants to reduce quotas for rare[-]earth exports by 30 percent at most next year to protect the precious metals from over-exploitation". China further announced the halt in production of three of its eight major rare-earth mines, responsible for almost 40% of China's total rare-earth production. These restrictions have damaged industries in other countries and forced producers of rare-earth products to relocate their operations to China.

As a result of the increased demand and tightening restrictions on exports of the metals from China, some countries are stockpiling rare-earth resources. Searches for alternative sources in Australia, Brazil, Canada, South Africa, Tanzania, Greenland, and the United States are ongoing. Mines in these countries were closed when China undercut world prices in the 1990s, and it will take a few years to restart production as there are many barriers to entry. One example is the Mountain Pass mine in California, which announced its resumption of operations on a start-up basis on August 27, 2012. Other significant sites under development outside of China include the Nolans Project in Central Australia, the remote Hoidas Lake project in northern Canada, and the Mount Weld project in Australia. The Hoidas Lake project has the potential to supply about 10% of the \$1 billion of REE consumption that occurs in North America every year. Vietnam signed an agreement in October 2010 to supply Japan with rare earths from its northwestern Lai Châu Province.

Due to the rising prices of rare earths, extraction of these oxides has become economically viable. The country currently exports around 3,000 tonnes per year, representing around 2% of world production. Similar resources are suspected in the western United States, where gold rush-era mines are believed to have discarded large amounts of rare earths, because they had no value at the time.

Nuclear reprocessing is another potential source of rare earth or any other elements. Nuclear fission of uranium or plutonium produces a full range of elements, including all their isotopes. However, due to the radioactivity of many of these isotopes, it is unlikely that extracting them from the mixture can be done safely and economically

**21. "I object to violence because when it appears to do good, the good is only temporary; the evil it does is permanent." In light of the above statement what are the various challenges posed by the increasing violence in our society.**

**Answer:** "Weak can never forgive, Forgiveness is attribute of Brave".

Violence is described by horrendous deeds of attacking, destroying, sabotaging, assaulting, molesting, killing and so forth. Every corner of our society is virtually being tainted by Violence.

Violence can be of both if word and action. Violence is used by people who don't have any other method to control others, get short tempered, irritated etc. Britishers used physical violence against Satyagrahis who were using Non Violent methods which shows them incompetent.

Violence can be imputed to many factors.

1. Disagreement over an issue with others may whip a person into resentment developing a sense of grudge in him.
2. Religious obsessions and racism chip in to suppress humanity.
3. People preoccupied with wicked thoughts resort to terrorist deeds.
4. As money makes a man anything, avarice makes human beings resort to any criminal activity.
5. Unemployed, dejected over life, tread on the path of self-employment through abductions and murders.
6. Greed, revenge, avenge, retaliation, racism, disparities, inharmony, unemployment contribute to this terrible violence

**What are its challenges:**

1. Resorting to violence such as anger, using force not only physically but also psychologically, seem to have achieved goals for instance but possibility of adherence to such achieved goals may not last long.
2. It also lowers morale of the affected with no signs of loyalty to the leaders resorting to violence as they are only seen to be a burden on people.
3. It brings divide and factions in society.
4. It creates suspicion, mutual distrust and anger amongst communities.
5. Violence perpetuates violence thus it gives a roll to snowball of violence.

We hear in the news by suicides bombers who blows himself and kills many innocent or takes guns and kills many others before killing himself. This shows they are frustrated and incompetent people who are blot on society.

However, on the Contrary we hear about Mahatma Gandhi who didn't even advocate to use violence against the British who had illegally colonised a country and were doing injustice against people. This shows Non violence as attribute of brave.

Every citizen must ensure effective implementation of laws apropos of violence. Sense of humanity has to be instilled in every citizen's mind. The adage "United we fall, divided we fall" aptly is in sync with the above measures to eradicate violence from the society. We must remember an eye for an eye makes the whole world blind.

---

36. What do you understand by compassion? How is it different from empathy? Do you think compassion makes people too emotional? Critically comment

It expects students to put their thoughts **about compassion**. It also expects to **differentiate** between compassion and empathy along with presenting both sides arguments **whether compassion makes people emotionally ill or not**.

**Answer:** Compassion is a sense of **concern** that arises when we are confronted with another's suffering and feel **motivated to see that suffering relieved**.

At its core, compassion is a response to the inevitable reality of our human condition—our experience of pain and sorrow. e.g. Mother Theresa has often been referred to as an embodiment of compassion. Her selfless work for the poor and destitute till date is inspiring and spoken of.

Empathy refers to the ability to imagine oneself in another's place and understand others' feelings, desires, ideas and actions. Whereas, Compassion gives rise to an active desire to alleviate another's suffering. **It itself involves a sense of empathy**. However, **It does not end with pity like empathy**. It invokes sensibilities **to understand and even feel the pain of others and motivates one to be truly helpful in overcoming this pain**. It basically implies to **suffer together**.

Compassion and emotional state of people:

7. Compassion offers the possibility of responding to suffering with **understanding, patience, and kindness** rather than, say, fear and repulsion.
8. A person in need would always be happy to get help. It would not only help him face the situation but will generate a blissful feeling of **being noticed and cared by others**.
9. Compassion allows a person to have a feeling of **self-satisfaction** of helping others whether an animal or human. Hence, it promotes a positive holistic mental health.
10. When such a society evolves having compassion for others and helps others in need, each individual is taken care of by the society and in turn he also **helps the society**. It in turn ensures great sense of security and blissfulness in people, resulting in **healthy emotional state**.
11. **Strongly integrated social capital grows with a co-operative and co-existing ecosystem**, resulting in reduced toxic or criminal outbreaks and instances. e.g. Compassionate Kozhikode programme in Kerala has same effect.

However sometimes Compassion produces some negative effects in society:

6. Compassion sometimes is said to lead a **guilt-induced decision making**.
7. Many a times, people involved in compassionate deeds find themselves feeling negative and less hopeful of their being. e.g. A downtrodden family in the neighbourhood who helps others in need but doesn't gets help when in need. It results in **negative emotion**.

In spite of these negative sides of compassion, recently scientists have found that compassion as a virtue releases **happy hormones in the brain** resulting in an efficient and positive outcome.

**Conclusion:**

When it comes to compassion though it has some negative aspects, it's positive aspects are more relevant and beneficial for human beings as rightly said by his holiness the Dalai lama that, "If you want others to be happy, practice compassion. If you want to be happy, practice compassion."

