

1. The recession induced by the ongoing COVID-19 pandemic is different from the economic crisis of 2008. Do you agree? Critically comment.

अभी चल रहे COVID-19 महामारी से प्रेरित मंदी 2008 के आर्थिक संकट से अलग है। क्या आप सहमत हैं? समालोचनात्मक टिप्पणी करें।

Demand of the question:

It expects students to write about the differences between the recession induced by the ongoing pandemic and economic crisis of 2008 along with critical analysis about the scale, impact and other factors.

Introduction:

The global economy is already in a recession due to health emergency of COVID-19 pandemic and subsequent lockdowns, shut downs of economies across the world. According to the IMF, this recession triggered by the Great Lockdown will be more intense and more extensive than the Great Recession in the wake of the global financial crisis (GFC).

Body:

Differences between the recessions of COVID-19 pandemic and 2008 financial crisis also known as Global Financial crisis:

COVID-19 Pandemic recession	Global Financial crisis
<ul style="list-style-type: none"> Origin and Transmission: It originated outside financial sector. It broke supply chains from china then multiple lockdowns and economy shutdowns, demand slumped. The ensuing distress in the real economy led to distress in the financial system. 	<ul style="list-style-type: none"> The GFC originated in the financial sector as banks and financial intermediaries got carried away by irrational exuberance and recklessly piled on risk. It unfolded in rich countries. As people lost their wealth and savings in the financial meltdown, demand collapsed and growth slumped. Transmitted from financial sector to real economy.
<ul style="list-style-type: none"> Challenge: central challenge is to beat the pandemic, and that solution has to come from science. Only when there is public confidence that the incidence of the pandemic has been brought down to a low-level equilibrium, will there be a resolution in both the real and financial economies. 	<ul style="list-style-type: none"> To restore faith in the financial system, this meant rescue and rehabilitation of banks and other financial institutions. Once that task in the financial sector was accomplished, repair of the real economy fell in place. Demand came back; supply resumed and growth picked up.

<ul style="list-style-type: none"> • Asymmetry of the solutions: Every country needs to control the pandemic within its borders. But that is not sufficient because the virus can hit back from across the border. In other words, rich countries are not safe until poor countries are safe too. And no country is safe until every country is safe. The effort to contain the pandemic is exacerbating the challenges in both the real economy and the financial sector. The more stringent the lockdown to save lives, the more extensive the loss of livelihoods. Managing this tension is by far the biggest dilemma for governments battling the crisis. 	<ul style="list-style-type: none"> • Restoring financial stability in the US was necessary, and for the most part, a sufficient condition for restoration of financial stability everywhere. Other countries returned to normalcy eventually as by-product. Solutions in the financial sector and in the real economy reinforced each other. E.g., RBI cut rates to stabilise the financial system, intervened in the forex market, government extended special concessions for housing and real estate sectors to provide stimulus in the real economy.
<ul style="list-style-type: none"> • Impact: It is more widespread than the economic crisis of 2008, almost every country affected badly. 	<ul style="list-style-type: none"> • China and India were less affected even as all rich countries were in a financial meltdown. In fact, one of the less acknowledged facts of the 2008 crisis is that it was the stimulus provided by China that kept the global economy afloat.

However, Nature of the crisis or the reason, origin of the crisis may be different but the burden on the economy is very much similar rather more intense compared to economic crisis of 2008. The Global Financial Crisis originated in the subprime mortgage sector of the US and then, rapidly engulfed the world. The current pandemic originated in the Hubei province of China and rapidly engulfed the world.

- Uncertainty: Both crises share uncertainty as a key factor once they emerged in one of the two leading economies and spread globally. Uncertainty is a risk that cannot easily be traced so that its probability of occurrence and its impact can hardly be predicted. This applies both to the new non-visible corona virus and to the subprime virus.
- Debacle of the stock markets across the world is similar link between two events which often remains sensitive to the disruptions in the financial market.
- Response of the governments: Stimulus packages announced by the governments across the world after both calamities. It eventually will increase inflation and interest rates will hurt the poor most.

As per various studies current recession is much bigger than 2008 financial crisis rather than different:

- Economic shock of COVID-19 pandemic is not just a demand shock but also a massive supply shock. Propping up demand may contribute to flattening the contagion curve by helping people stay locked down, but there is a limit to how much it can help the economy. Supply chains impaired due to mass exodus of migrants in India.
- According to World Bank data, the COVID-19 recession will be the deepest since 1945-46, and more than twice as deep as the recession associated with the 2007-09 Global Financial crisis along with contractions in annual per capita gross domestic product (GDP) and the global rate of unemployment will likely climb to its highest level since 1965.

Conclusion:

There is also ray of hope in V-shape or U-shape recovery predictions of various economic models which might reduce the time of recovery from current recession as compared to the 2008 crisis at much faster rate. Effective drug to treat the disease even before the breakthrough of vaccine can save the world from economic downturn.

2. Examine the significance of internal migration for the economy. How is the current exodus of migrants hurting the economy? Explain.

अर्थव्यवस्था के लिए आंतरिक प्रवास के महत्व की जांच करें। प्रवासियों का मौजूदा पलायन अर्थव्यवस्था को कैसे नुकसान पहुंचा रहा है? स्पष्ट करें।

Demand of the question:

It expects students to write about the significance of the internal migration for the Indian economy and impact of current exodus of the migrants on the economy.

Introduction:

The COVID-19 crisis for India has also become economic as well as humanitarian involving inter-State migrants on return journeys home racked by pain and suffering and no surety of any income going ahead. For a majority of migrant labourers, migration is either a livelihood accumulation strategy or survival risk reducing strategy whichever way we define the nature of migration.

Body:

According to the Census of 2011, there were 139 million interstate migrants who moved for all manner of reasons ranging from education to marriage, not just employment. The data reconfirm the dominance of Uttar Pradesh and Bihar as well as other Hindi-speaking states as main source states, while Maharashtra, Delhi, Gujarat, Uttar Pradesh and Haryana absorbed half of the migrants.

According to the Centre for Monitoring Indian Economy (CMIE), an estimated 122 million people lost their jobs in April alone and three-quarters of these were small traders and wage labourers majority part of internal migrants.

Significance of internal migration for the economy:

- Dependence of multiple industries: Major sub-sectors using migrant labour are textiles, construction, stone quarries and mines, brick-kilns, small-scale industry (diamond cutting, leather accessories, etc.), crop transplanting, sugarcane cutting, rickshaw-pulling, fish and prawn processing, salt panning, domestic work, security services, sex work, small hotels and roadside restaurants/tea shops and street vending. Calculations based on these estimates indicated that the economic contribution of migrants was around 10% of India's gross domestic product (GDP) as per study of Priya Deshingkar.
- Demand of casual work and better income: Internal migration is major force for unskilled work in industry and daily wage sector of informal economy. E.g. Daily wages in state like Odisha is 100 to 120 for unskilled work whereas it is as high as 600-800 in state like Kerala.
- Income source for poorer region: Internal remittances in India totalled \$7.485 billion in 2007-08, highlighting the poverty and inequality reducing potential of internal migration as the money flows directly to families in poorer parts of the country.
- Interstate male migrants often move alone which became part of cheap labour force on which Indian economy capitalise to attract foreign direct investment. E.g. out of 11 million migrant population registered under census 2011 in south Delhi only around 27000 are female. Left over families in rural area reduces the cost of living in the urban centres which help them to survive and send remittances in comparatively satisfactory wages.
- On the other hand, internal migration increases homogeneity of Indian society with more cosmopolitan cities helps in increasing national integrity.

Impact of migrant exodus on the economy:

- Collapse of mini-economies: Mini economies which sustain labour supply in urban centres as well as add to the aggregate demand in the overall economy faced major blow due to exodus. E.g. Tea shop outside private offices which catered demand in the urban centre generated demand in the distant rural areas by remittances of money, which completely closed due to exodus.
- The establishment of local ancillary service economies is not automatic. They rely on a critical mass of migrant workers in order to ensure profitability. If there is enough number of customers, then the street vendor finds it profitable to sustain his service. After the reverse migration, their incomes would be adversely affected.
- High cost of labour in comparatively industrialised and manufacturing states: The networks of migrant labour supplemented local workforce and plugged regional resource gaps to expand the productive capabilities of the region.

Without them, this ostensibly demands problem might turn into a supply bottleneck too.

- High input cost in manufacturing states will wipe out profits of businesses which will reduce the export potential eventually.
- Production delay: The aggregate growth in GDP relied on high growth industrial or trade centres which spearhead production and generate momentum for the rest of the economy. The lockdown strips these centres of their capability and threatens India's overall macroeconomic stability.
- Stress on MSMEs: Now parts of the economy which seemed to have the capacity to pause during the lockdown would experience a strain eventually due to their linkages with the SME's. Unable to obtain ancillary inputs, the larger enterprises will end up with a clogged value chain. This is the domino effect of an unanticipated demand drop which permeates into a general adverse effect on the overall economy.
- Socio-economic inequality: when the poor become poorer, there can be serious long-term impacts on economic growth. Studies have shown that one of the main mechanisms through which inequality affects growth and development is by limiting educational opportunities for children from poorer backgrounds, reducing their prospects for social mobility and breaking out of caste-based occupations. With remittances no longer flowing to rural areas, for the time being, the poor will struggle to invest in education and other ways of enhancing their children's life chances.

However, governments should better plan the reverse migration because market forces might work with a lag under uncertain economic environment due to the pandemic.

Conclusion:

The mass exodus of migrants now becomes a significant barrier and acceleration to maintain the \$2.7 trillion economy needs planned policy for reverse migration along with reduction in development deficit to increase opportunities in source states. Otherwise it will be difficult in the foreseeable future to realise dream of \$5 trillion economy.

3. Is boycotting Chinese products a viable strategy to counter Chinese aggression? Critically examine.

क्या चीनी आक्रामकता का मुकाबला करने के लिए चीनी उत्पादों का बहिष्कार एक व्यावहारिक रणनीति है? समालोचनात्मक जांच करें।

Demand of the question:

It expects students to write critical analysis about the viability of the strategy of boycotting Chinese product to counter Chinese aggression.

Introduction:

After Prime Minister Narendra Modi's call for 'atmanirbharta' gave self-reliance the status of a national mission, the outrage has been particularly pronounced on social media, with hash tags like Boycott China trending on Twitter. Engineer Sonam Wangchuk's initiative on micro blogging site has been quite successful. Recent violent face-off in the Galwan valley intensified the strategy of boycotting Chinese product further.

Body:

Rationale of boycott Chinese goods and services:

- Pandemic of COVID-19: Given the source of coronavirus in China and its mishandling of outbreak in earlier phase has increased animosity of world towards China and demands for reparations has been increased.
- Violent face-off on the border: Latest scuffle between soldiers of Indian army and People's liberation army in the Galwan valley which led to death of 20 Indian soldiers has angered the common sentiments of Indian population.
- Predatory pricing: China has adopted the ruse of manufacturing goods at such low prices that industries in other countries are unable to compete. Keeping a tab on what is in demand in the market and delivering it in large numbers quickly and cheaply has become China's forte.
- Wide trade deficit: India's trade deficit with China stood at \$51.68 billion between January-November 2019. Bridging this trade gap alone is a matter of concern.
- Comparatively Lesser Investment: Of all FDI inflows to India, Chinese investments have only been 0.52 percent since 2000. The biggest increase has been in the acquisition of shares in existing businesses, including pharmaceuticals companies—a source of concern during corona virus-related medical supply chain fears. Chinese investment has also been directed toward technology start-ups. According to a study, 18 out of 30 Indian "unicorn" companies have significant Chinese investment. E.g. Paytm, Ola, Flipcart.
- Data Security: China's increasing stakes in Indian start-ups and other technology companies also raise major concerns over the protection of intellectual property rights, data privacy, and national security. E.g. Alibaba is the single largest shareholder in Paytm, which handles the daily financial transactions of millions of Indians.
- Global concerns: India isn't the only country concerned about the Chinese government's influence over private technology companies' foreign activities. E.g. opposition to Huawei in US and EU.
- Given the world wide wave of protectionism, India should focus on building its own supply chain and occupying its domestic market.
- Indian government has shown its intent by scrutinising Chinese investment. According to the Indian Ministry of Commerce, tighter restrictions on Chinese investment became necessary in order to prevent "opportunistic takeovers" of Indian companies.

However, there are concerns voiced by commentators that boycott china might hurt India more.

- Globalisation: We live in a world which, despite many recent setbacks to globalization, is inextricably interlinked, with the supply chains of companies spanning various geographies.
- Complex nature of sourcing: Products made by Indian firms contain components that come from China or use Chinese machinery to make them. Small and medium businesses, the focus of attention currently for their fragility in the face of pandemic-induced lockdowns, extensively use low-cost Chinese machinery and capital goods, besides trading in many finished products from that country.
- Large Indian companies like Dr. Reddy's Laboratories, Mahindra & Mahindra and Sundram Fasteners have manufacturing units in China that cater to markets abroad as well as in India. In several segments, the fate of an entire industry could be in jeopardy if its China links are severed.
- Vital capital needs of Indian industry and start ups: Commentators have also pointed out how any such call to boycott Chinese goods sits uncomfortably with the billions of dollars of Chinese investment in local start-ups that are routinely held up as role models of Indian ingenuity.
- More loss to Indian exports in reciprocal action: India is a large market for Chinese goods, accounting for 3% of China's exports and adding up to \$75 billion in 2019. But here's the thing: India's \$17 billion of exports to China account for a much-higher 5.3% of our total exports. Any trade war with China would hurt India, too.

Though, it is also debatable how much effect a politically-motivated boycott can have.

- India's aspiration of global power from regional power: One global power cannot have regressive restrictive trade practices against other. Such policies or initiatives might hurt India's economic development by losing market of large country like china.
- Sustainable development: India is heavily dependent on China when it comes to achieving its renewable energy target. India's import dependence for meeting its solar equipment demand was over 90 percent in past three financial years, Power and New & Renewable Energy Ministry said in a written reply to the Lok Sabha last year. India is third largest economy in the world on the basis of purchasing power parity, there should not be trade boycott between first and third largest economy for the sake of sustainable development of world.
- Middle income trap concerns: Free trade and open economy has helped India in rapid progress of Economy from around \$296 billion in 1989 to around \$2.80 trillion in 2019. India is still in need of globalisation to come out of middle income trap.

- Compromised quality: Excessive protection of domestic firms might reduce competitiveness of Indian product in international market and would create another foreign exchange crisis.

Conclusion:

Many times clamour for boycott is due to geopolitical reasons however diplomatic and military rivalry can go on with continuation of trade outside strategic domain exemplified in flourished trade between US-China. Instead of boycotting Chinese goods, we should negotiate with Beijing to open China's market further to Indian services as well as more finished goods without compromising on territorial integrity and sovereignty.

4. Improving the job landscape in the rural sector is imperative to provide the much-needed fillip to the economy. Comment.

ग्रामीण क्षेत्र में नौकरी के परिदृश्य को बेहतर बनाना अर्थव्यवस्था के लिए बहुत जरूरी है। टिप्पणी करें।

Demand of the question:

It expects students to write about the criticality of improving job landscape in rural sector to give much needed fillip to the economy.

Introduction:

India is predominantly a rural country. As per the 2011 Census, 68.8 per cent of country's population and 72.4 per cent of workforce resided in rural areas. Rural economy constitutes 46 per cent of national income. Despite the rise of urbanization more than half of India's population is projected to be rural by 2050. Thus growth and development of rural economy and population is a key to overall growth and inclusive development of the country in post COVID-19 India.

Body:

Rural sector as driver of Economic fillip:

- If there is no universal access to a Covid-19 vaccine for another 18-24 months, then businesses in safer sectors and locations are likely to do well, here rural sector might act as net gainer.
- In rural India, where it is naturally easier to have physical distancing and outdoor work. This may shift the focus from urban markets to rural markets, for both demand and production.
- As per NITI Aayog report, more than half of Indian industrial production comes from the rural areas. Rural construction also accounts for nearly half of the total building activity in the country. The value of rural services is about a quarter of the total services output.

- Surplus labour: Livestock, fisheries, dairy, vegetables, fruit and food processing are more labour-intensive and high value-yielding.
- Infrastructure investment: Local initiative for building community infrastructure, like water harvesting, canal irrigation network, hubs for community market centers etc. may generate employment opportunities.

As migrants returned to source states, agriculture may face overcrowding and cannot sustain surge of labourers. It is possible that eventually reverse migration will take place and urban centres will return to economic growth with reduced supply chain constraints. Rural employment has shrunk after 2005 while the urban areas have not been able to absorb the millions who are leaving the farm. Rural India is incapable of absorbing the estimated 23 million interstate and intrastate migrant labourers who might return home from urban areas due to the COVID-19 lockdown. However to reduce the plight of migrant exodus witnessed during forced lockdown indicates necessity to address root cause of such crisis which lies in the developmental deficit.

Need to improve job landscape in rural sector of India:

- Agriculture has accounted for less than half of total rural output since the turn of the century. On the other hand, National Sample Survey Office (NSSO) data shows that more than one-fifth of rural households with self-employment in agriculture have income less than the poverty line.
- Agriculture labour productivity in terms of gross value added (GVA) in India is less than a third of that in China and 1% of that in the US. Rural sector is net importer vis-e-vis urban areas which indicate outward flow of money, which highlights critical need of new jobs.
- About MGNREGA: Need to increase the number of days per household from 100 to 200 days for this year. Another approach would be to let families work as much as they wanted to – even if the number of days exceeded 100 – as long as the state average of labour days per household did not cross 100.
- Food processing sector: After many decades of neglect in research and development, lack of market access, on-off policies for exports, and market distortions, the present adversity may be a timely opportunity for this sector.
- Entrepreneurship: Local production of items of local requirement, the local weavers, artisans and craftsmen may establish micro enterprises and form local community marketing cooperatives.
- Agri-tech start ups will be crucial for developing innovative digital solutions to maximise productivity, improve market linkages, increase supply chain efficiency and provide greater access to inputs for agri-businesses.
- E-commerce platform for local products: On the lines of Amazon India initiative for tribal products of Telangana, rural crafts can be availed on major e-commerce sites with authentic branding with the help of state governments.

These measures or innovations need support of a suitable policy framework and reforms in pricing policy, tax, market access, credit and rural infrastructure, like warehouses and cold storage. The next two years or so of how we learn to live with

corona virus can redesign the economy towards safer and more sustainable production and consumption, with agriculture and the rural economy as its strength, rather than its weakness.

Conclusion:

In this economic pandemic, the lifeline of Indian economy lies in the transformation of the rural sector into a matrix of local economies, striking a balance between their diversified local production for local needs and surplus trading.

5. Will it make sense to put an additional tax burden on the super-rich to mobilise revenue at the time of COVID-19 pandemic? Substantiate your views.

क्या COVID-19 महामारी के समय राजस्व जुटाने के लिए अत्यंत धनि लोगों पर अतिरिक्त कर का बोझ डालना समझदारी होगी? अपने विचारों को सारगर्भित करें।

Demand of the question:

It expects students to write about viability of the demand of additional tax burden on the super-rich to mobilise revenue at the time of COVID-19 pandemic with substantive argument.

Introduction:

IRS association paper, Mission Jai Hind in India proposed by economists and activists suggested ideas of raising tax burden on super-rich to fight the impacts of COVID-19. There have been demands of additional tax on super rich to deal with unprecedented fall of revenue of government inspired from Peru's proposed 'solidarity tax' to mitigate the economic impact of the COVID-19 pandemic.

Body:

In late-March, the government announced an economic package of \$22 billion (amounting to 0.8% of GDP). In second week of May, a second economic package was announced, which amounts to nearly 10% of India's GDP. It includes the first economic package and a slew of credit guarantees and liquidity enhancing measures that hardly qualify as fiscal stimulus.

Case for solidarity tax on super-rich:

- India desperately needs solidarity and wealth taxes to boost direct tax revenues that would decline drastically this year due to lockdown and social distancing measures implemented in response to COVID-19.
- Need of fiscal stimulus: Given the magnitude of humanitarian and economic disaster in India, the government should not worry about fiscal deficit numbers. This is the right time to abandon fiscal fundamentalism as India badly needs a strong fiscal stimulus to mitigate COVID-19 shocks which need additional revenue.

- There is no denying that India has the potential of greater domestic resource mobilisation by imposing wealth, inheritance, and estate taxes, in addition to raising the income tax slab for the super-rich.
- Quantity of ultra super-rich: While India is still home to 180 million poor people, the country has the world's fastest-growing population of millionaires. According to a report by Credit Suisse Research Institute, there are 7,59,000 dollar millionaires in India. According to Hurun Global Rich List 2020, India occupies the third position globally (after China and the US) with 137 dollar billionaires.
- In 2016, government abolished the wealth tax introduced way back in 1957. The wealth tax was replaced with an extra 2 percent surcharge on the super-rich individuals with a taxable income of over Rs 10 million. In the 2019-20 Union Budget, the Finance Minister proposed enhancing the super-rich's surcharge but soon withdrew it. Last year, the government slashed the maximum corporate tax rate from 30 percent to 22 percent. The revenue foregone on reduction in corporate tax would be Rs 1.45 trillion annually, not an insignificant amount.
- Despite experiencing higher growth rates over the past two decades, India's tax-GDP ratio is abysmally low primarily due to low direct tax base, parallel economy, and unorganised sectors of the economy. India's tax-GDP ratio (excluding states' share in taxes) was 10.9 percent in 2019, far lower than the average OECD ratio of 34 percent. According to official statistics, only 14.6 million individuals (less than 2 percent of the population) paid income tax in India last year. On the other hand, indirect taxes (such as excise taxes) impose a greater burden on poor people, thereby aggravating the already high degree of inequality in India. In recent years, there have been frequent demands to reform India's regressive tax system and to make it more equitable.
- A policy paper quickly withdrawn due to huge criticism; 'Fiscal Options and Response to Covid-19 Epidemic', submitted to the Central Board of Direct Taxes (CBDT), recommendations include enhancing the income tax rate to 40% for those earning over Rs 10 million; re-introduction of wealth tax for those with a net wealth of Rs 50 million; a one-time COVID-19 cess of 4% on taxable income of over Rs 1 million; and increasing the surcharge on foreign companies operating in India.

However, Prime minister in his one of the Independence Day speech highlighted the importance of wealth creators and honour to wealth creators; he stressed point of wealth creation as necessity for wealth distribution.

- Targeting: Typically only a small number of individuals often salaried bear the additional tax and/or cess, while another sizeable segment of the super-rich is believed to unfairly evade such tax burdens.
- Tax harassment rather tax terrorism: Repeatedly imposing new cess/surcharge on a small group of captive tax-payers is not only unfair to them and acts as an disincentive, but also goes against the principle of lowering the tax rate along with broadening the tax net adopted since the

economic liberalisation in 1991 (when the highest income tax rate including surcharge used to be as high as 56%).

- Fewer rich people: high marginal rates of taxation on income and wealth would produce adverse incentives to work which would reduce the overall size and growth of the national pie.
- Against fundamental economic principles: Laffer Curve' suggests that, as tax rates go up, initially tax revenue increases but eventually at some 'very high' rates of tax, tax collection begins to fall. For instance, 97% rate (the top tax rate, including surcharges, in Indira Gandhi' s Budget of 1970-71) is generally regarded as 'too high' as tax payers in that bracket would either prefer not to earn extra income or make all kinds of efforts to evade paying taxes, including sending capital abroad or migrating to countries with lower taxes.
- Era of digital economy and tax heaven countries: In today's scenario technology allows capital and income to fly from one destination to other in few seconds, competition of tax heaven countries could foil attempts to increase additional taxes on super rich.

Even though, there is no denying fact that in time like this, the so-called super-rich have a higher obligation towards ensuring the larger public good. This is for multiple reasons – they enjoy a higher capacity to pay with significantly higher levels of disposable incomes compared with the rest, they have a higher stake in ensuring the economy springs back into action, and their current levels of wealth itself is a product of the social contract between the state and its citizens.

Most high-income earners still have the luxury of working from home, and the wealthy can fall back upon their wealth to cope with the temporary shock. In view of several European economists, taxing the wealthy would be the most 'progressive fiscal tool', as wealth is far more concentrated than income and consumption.

Conclusion:

Even capitalist countries like United States during emergency time of World War 2 increased taxes up to 90% for significant period of times. However, policy makers should think of other sustainable innovative measures to raise resources and additional tax burden can be last resort.

6. What are the most potent threats to India's cyberspace today? Explain. What are the institutional arrangements in place to address these threats? Examine.

आज भारत के साइबर स्पेस के लिए सबसे प्रबल खतरे क्या हैं? स्पष्ट करें। इन खतरों को दूर करने के लिए संस्थागत व्यवस्थाएं क्या हैं? जांच करें।

Demand of the question:

It expects students to write about the most potent threats to India's cyberspace along with efficiency of institutional arrangement in place to address these threats.

Introduction:

A cyber security firm Cyfirma has warned against a potential cyber attack from hacking groups in China in retaliation for the violent clashes between armed forces in India and China. Reports of 'incident' happened in Kudankulam Nuclear power plant in last September was related to cyber security, highlights threats posed to cyberspace of India by various elements based in national and international arena.

Body:

As the lack of digital literacy, substandard quality of devices used to access internet, import dependence, lack of skilled manpower makes Indian cyberspace vulnerable to cyber threats. The digital economy today comprises 14-15% of India's total economy, and is targeted to reach 20% by 2024. India has more than 120 recognised data centres and clouds. The average data consumption per person a year is in the range of 15-20 gigabits.

Threats to India's cyberspace:

- Threats to Critical information infrastructure: As it is essential to the functioning of a modern economy, security and other essential social services. Critical information sectors in India include Power, ICT/Communication, Finance/Banking, Transport and e-governance. A minor disruption at one point could have a rippling effect across multiple infrastructures.
- As tool of Proxy warfare: China has built strong 'cyber offense force'. Hacking groups of Pakistan and China, external intelligence agency of Pakistan has started using cyber space as tool to attack security and economic infrastructure, which might hamper India's growth trajectory. These countries are acquiring offensive capabilities by building bits of software called 'cyber weapons' to do enormous damage to the adversary's networks.
- Threat to economic security: Sectors such as healthcare, retail trade, energy and media face advance persistent threats (APTs), as the latest reports of an Israeli spyware allegedly used to spy on Indian journalists and human rights activists attest. These incidents relating to data leakage, ransom ware, ATM/credit cards denial of service, diversion of network traffic intrusion in IT systems and networks using malware are on rise.
- Threat to IT infrastructure: As India is renowned IT service provider to the rest of the world; compromise on the security of IT infrastructure will be huge risk to India's service sector.
- Advance technologies: With more inclusion of artificial intelligence (AI), machine learning (ML), data analytics, cloud computing and Internet of Things (IoT), cyberspace has become a complex domain, giving rise to threats of complex nature. Attacks on embedded systems and IoT have also registered a sharp increase of late. Such incidents are being launched from cyberspace of different international jurisdictions.

Institutional arrangements in India:

- National Critical Information Infrastructure Protection Centre (NCIIIPC) to battle cyber security threats in strategic areas such as air control, nuclear and space. It will function under the National Technical Research Organisation, a technical intelligence gathering agency controlled directly by the National Security Adviser in PMO.
- National cyber coordination centre (NCCC) to scan internet traffic coming into the country and provide real time situational awareness and alert various security agencies.
- A new Cyber and Information Security (CIS) Division has been created to tackle internet crimes such as cyber threats, child pornography and online stalking.
- Under this, Indian cyber- crime coordination centre (I4C) and Cyber Warrior Police force has also been established.
- Ministry of Defence formed Defence Cyber Agency in the realm of military cyber security. Indian Computer Emergency Response Team (CERT-in) to enhance the security of India's Communications and Information Infrastructure through proactive action and effective collaboration.
- CERT-fin has also been launched exclusively for financial sector. CERT-in is also operating Cyber Swachhta Kendra, a Botnet Cleaning and Malware Analysis Centre.
- Government inaugurated the new body National Information Centre Computer Emergency Response Team (NIC-CERT) to prevent and predict cyber-attacks on government utilities.
- Cyber Surakshit Bharat Initiative to strengthen Cyber security ecosystem in India. It is first public private partnership of its kind and will leverage the expertise of the IT industry in cyber security.
- Information Technology Act, 2000 (amended in 2008) to provide a legal framework for transactions carried out by means of electronic data interchange, for data access for cyber security.

Steps to be taken:

- There is need to strengthen National Cyber security Coordinator (NCC) to bring about much-needed synergy among various institutions and work out a coordinated approach to cyber security, including cyber deterrence.
- India needs to make a proper assessment of an offensive cyber doctrine.
- National cyber security strategy, 2020 is need of the hour to ensure a safe, secure, trusted, resilient and vibrant cyber space for our Nation's prosperity.
- The concept of 'active cyber defence' is generally being adopted to address the new challenges; India should devise its own strategy on the lines of Examples like EU's General Data Protection Regulation (GDPR).

As the global multi-stakeholder model of internet governance is showing cracks. UN could not decide norms of global cyber behaviour. India should not left behind in advancement in fields of cyber security and need to rethink joining Budapest convention on cyber security.

Conclusion:

Stress on development of cutting edge technology in the field of cyber security along with capacity of skilled human resources can make Indian cyber space robust, irrespective of changing norms of cyber behaviour at global level. Priority to cyber security is no longer optional but one of the pillar of India's internal and external security.

7. Overemphasis on achieving high economic growth can often ignore the need for equity and lead to disparities. Elucidate.

उच्च आर्थिक विकास प्राप्त करने पर जोर देने से अक्सर समानता की आवश्यकता की अनदेखी हो सकती है। स्पष्ट करें।

Demand of the question:

It expects students to write about the debate between growth and redistribution along with effects of overemphasis on high economic growth and need to account measures to reduce inequality and disparities.

Introduction:

Economic growth has raised living standards around the world, but modern economies have lost sight of the fact that the standard metric of economic growth, gross domestic product (GDP), merely measures the size of a nation's economy and doesn't reflect a nation's welfare. Yet policymakers and economists often treat GDP as an all-encompassing unit to signify a nation's development, combining its economic prosperity and societal well-being.

Body:

The debate between growth and equity and redistribution is one of the oldest in economic development. The common citizens of any country care more about the real impact of growth in terms of improvement in their standard of living, provision of basic facilities such as electricity, drinking water, healthcare systems etc.

Focusing exclusively on GDP and economic gain to measure development ignores the negative effects of economic growth on society, such as climate change and income inequality. It's time to acknowledge the limitations of GDP and expand our measure development so that it takes into account a society's quality of life.

Fallacy of GDP growth as indicator national progress:

- Ineffective trickle down of benefits earned from economic growth. There is increasing disconnect between economic growth and social development. As per popular development economist Jean Dreze, India's high economic growth has failed to bring about any significant improvement in the quality of life of the common people.

- GDP cannot differentiate between an unequal and an egalitarian society if they have similar economic sizes. As rising inequality is resulting in a rise in societal discontentment and increased polarization.
- Despite the high growth rates in India, almost half of the children younger than 5 years are stunted due to improper nutrition and sanitation. As of 2018, more than 163 million Indians do not have access to safe drinking water. Over the decade ending 2011, water availability reduced by 15% and it is estimated that India will become water-scarce by 2050. As per the Tendulkar methodology, 22% of Indians live on less than \$1.25 a day.
- Economic growth of lower strata should be faster than the affluent class; however India has experienced one of the highest rates of growth of inequality. As per OXFAM survey India's richest 1% holds four times of the wealth held by 70% of bottom population which is around 1 billion. Certainly in GDP growth fails to account pie of growth of shared by different sections of society which makes it ineffective indication of national progress.

Though, it is necessary to generate wealth in the first place to redistribute it, however overemphasis on high growth rate may create huge inequality and disparity.

- Labour reforms: Time of the crisis is often used by rulers as opportunity to push unpopular policy decisions in democratic countries. Recent labour reforms pushed by UP, MP may create inequality faster than growth. It reduces the bargaining power of labour via different conditions like contract labour, ability to hire and fire, relaxation on working hours, lesser inspection from government officials for working conditions ultimately making lives of unskilled and lower skilled population worse for high economic growth for so called stress on cheap labour as ease of doing business indicator.
- Regressive tax system: Where rich pay lower taxes as compared to poor. Increased efficiency of indirect taxes with the coming of GST which is burdened by larger base rather than stress on improving direct tax efficiency. Higher proportion of indirect taxes in overall tax collection, absence of wealth tax or inheritance tax indicates regressive taxation.
- Lack of universal education and Health: Lack of universal free college education makes it impossible to generate equal opportunity for students from poorer section to achieve high skill set in new technologically advanced economic models and journey towards industrial revolution 4.0. Out of pocket expenditure on health is one of the major reasons for chronic poverty in India, despite of which high economic growth has failed to improve health infrastructure or provide universal healthcare.
- Financial sector reforms: Privatisation, increased focus on fiscal consolidation, more scrutiny of loans for lower sections like farmers, labourers. Financial sector reforms often designed in way to squeeze cash from lower section to higher level of pyramid.

Overemphasis on GDP growth ignore account of inequality,

- India's National Indicator Framework Baseline Report, 2015-16 for measuring progress towards Sustainable Development Goals shows India has not developed most of the indicators required to measure and mitigate inequality.
- The National Indicator Framework Baseline Report reveals that India does not have data to measure growth rates of household expenditure per capita among the bottom 40% of the population or the total population.
- The government of India has no data on the proportion of people living below 50% of median household expenditure. The report further reveals that no national indicator has yet been developed to ensure equal opportunity and reduce inequalities of outcome.

India need alternative metrics to complement GDP in order to get a more comprehensive view of development and ensure informed policy making that doesn't exclusively prioritize economic growth. Bhutan's attempt to measure Gross National Happiness, which considers factors like equitable socio-economic development and good governance, and UNDP's Human Development Index (HDI), which encapsulates health and knowledge apart from economic prosperity.

As a step in this direction, India is also beginning to focus on the ease of living of its citizens. Ease of living is the next step in the development strategy for India, following the push towards ease of doing business that the country has achieved over the last few years.

Conclusion:

Covid-19 pandemic has brought in sharp focus the extent of income inequality, especially in poor countries like India. The economic philosophy of "growing the pie" followed by successive Indian governments has turned India into a 1% economy. Moving away from GDP numbers and collecting and publishing data on the income, wealth and wages, by decile and centile, will be the first step towards creating a model of equitable growth. The end goal should be more just and equitable society that is economically thriving and offering citizens a meaningful quality of life.

8. Reforms in the agricultural sector are an important prerequisite for ensuring inclusive growth. Discuss.

समावेशी विकास सुनिश्चित करने के लिए कृषि क्षेत्र में सुधार एक महत्वपूर्ण कदम है। चर्चा करें।

Demand of the question:

It expects students to write about the need of reforms in the agricultural sector as an important prerequisite for ensuring inclusive growth.

Introduction:

The central government recently introduced major agricultural market reforms. It will allow farmers to sell their produce outside mandies on platforms of e-trading, lifting restrictions on key commodities such as cereals, pulses, onion and potato and freedom to enter into agreement with private players.

Body:

Inclusive growth is economic growth that is distributed fairly across the society and creates opportunities for all, as per OECD report.

- Agriculture in India is largest private profession and largest informal labour market; reforms in such huge sector will certainly benefit large sections of society and recent measures of quantum jump through ordinances are right steps in that direction.
- Reforms were brought through three ordinances: The Essential Commodities (Amendment) Ordinance 2020, The Farming Produce Trade and Commerce (Promotion and Facilitation) Ordinance, 2020, and The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Ordinance, 2020.

Need of reforms in agriculture sector:

- At the time of independence, the share of agriculture in total GDP was more than 55 per cent and about 70 per cent of the population was dependent on the agriculture sector for their livelihood.
- In the post independence era, stagnant production, low productivity, traditional technology, and poor rural infrastructure were the major challenges for the Government.
- According to the agriculture census 2015-16, the real income of farmers doubled in almost 20 years from 1993-94 to 2015-16. As the target to double farmers' income by 2022 is nearing, reforms on land, market, price, and to ameliorate supply side constraints were necessary.
- Almost 44 per cent of the country's labour force is engaged in agriculture. The average annual growth rate in real terms in agriculture as well as its allied sectors has remained static in the last six years, in turn impacting farmer's income, as per the Economic Survey 2019-20.
- The annual growth rate in real terms in agriculture and its allied sectors was 2.88 per cent from 2014-15 to 2018-19, according to the Survey. The estimated growth rate in 2019-20 is 2.9 per cent. Economic Survey Report 2020 also emphasised the importance of sustainable agricultural practices to support small and marginal farmers, who constitute 87 per cent of India's peasants.
- National Sample Survey Office (NSSO) data shows that more than one-fifth of rural households with self-employment in agriculture have income less than the poverty line.
- Agriculture labour productivity in terms of gross value added (GVA) in India is less than a third of that in China and 1% of that in the US. Rural sector is net importer vis-e-vis urban areas which indicate outward flow of money.

- Women in agriculture are affected by issues of recognition and in the absence of land rights, female agricultural labourers, farm widows, and tenant farmers are left bereft of recognition as farmers, and the consequent entitlements. According to Oxfam (2013), around 80 per cent of farm work is undertaken by women in India. However, they own only 13 per cent of the land. Women constitute over 42 per cent of the agricultural labour force in India, but own less than two per cent of farmland.
- According to the Food and Agricultural Organization (FAO, 2011), empowering women through land and ownership rights has the potential of raising total agricultural output in developing countries by 2.5 to 4 per cent and can reduce hunger across the world by 12-17 per cent.
- According to the National Crime Records Bureau, farmer protests increased from 628 in 2014 to 4,837 in 2016, making evident the disenfranchised and displaced agricultural workforce of the country.

Inclusive growth through reforms:

- Livestock wealth is much more equitably distributed than wealth associated with land. Livestock producers, including traditional pastoralists and smallholders, are both victims of natural resource degradation and contributors to it. Livestock rearing is a key livelihood and risk mitigation strategy for small and marginal farmers, particularly across the rain-fed regions of India.
- Livestock rearing at the household level is largely a women-led activity, and therefore income from livestock rearing and decisions related to management of livestock within the household are primarily taken by women.
- Need to Increase focus on reforms with national mission on sustainable agriculture.
- There are some emerging land issues such as increase in demand for land for non-agricultural purposes including special economic zones, displacement of farmers, tribals and others due to development projects. There is a need for careful land acquisition. Land alienation is a serious problem in tribal areas.
- Agriculture reforms and Greening rural development will contribute to inclusive growth by enabling the target growth rate of agriculture of 4 percent, which is important due to agriculture's multiplier effects and due to the continued dependence of 58 percent of India's rural population for livelihoods on agriculture, regenerating common land and water bodies, which offer sustenance to the rural poor through provisioning of goods and ecosystem services, 'crowding in' private investment in green businesses: renewable energy generation, organic input chains and advisory services, green product supply chains, production of environment-friendly construction materials.
- As reiterated in the past, the Agricultural Developmental Council (ADC) in line with the GST Council is a dire need to make agricultural reforms more expressive and representative. For better income distribution, there is also a need to revisit regional crop planning and the agro-climatic zone model at

the highest possible level so as to make agriculture the engine of sustainable economic growth in India 2.0 by 2022.

However, on positive side during the first year (2019-20) of the second term of government, gross value added (GVA) in agriculture and allied sectors registered a growth of 4 per cent. This is commendable, especially when juxtaposed with the growth of overall GVA of the economy at 3.9 per cent, and overall GDP (including net taxes) at 4.2 per cent.

Conclusion:

Despite of impact of COVID-19 is on full display in current financial year 2020-21, and when the GDP may register a negative growth of as high as -5 per cent, agriculture may still surprise with a positive growth of 2.5 per cent, as per CRISIL's recent forecast. Path of economic recovery goes through the agricultural sector and reforms in such time will have multiplier effect.

9. Indian space start ups have got huge potential. However, there are many challenges that need to be overcome to get into the league of global space giants like the SpaceX. Comment.

भारतीय अंतरिक्ष स्टार्टअप में बड़ी संभावनाएं हैं। हालाँकि, ऐसी कई चुनौतियाँ हैं, जिन्हें SpaceX जैसी वैश्विक अंतरिक्ष दिग्गजों की लीग में लाने के लिए दूर करने की आवश्यकता है। टिप्पणी करें।

Demand of the question:

It expects students to write about the potential of Indian space start ups along with the challenges being faced by space start ups in reaching global league of giants like SpaceX.

Introduction:

The recent announcement by Finance Minister in the fourth tranche of the 20 Lakh crore 'Atma Nirbhar Bharat Special Economic Stimulus Package' (ANBSESP) for greater participation of the private enterprise in the space sector is very promising. It will help to realise potential of space start ups in India.

Body:

Promises of Government include:

- Govt will provide predictable policy and regulatory environment, and allow private sector to use ISRO facilities.
- Future projects for travel in outer space or exploration of new planets will be open to the private sector.
- Govt will ease geo-spatial data policy to make such remote-sensing data more widely available to tech entrepreneurs, with safeguards put in place.

Potential of Indian space start ups:

- India makes a great place for building a space business as a start-up. It has experienced space professionals who have been nurtured in an ecosystem that has 60 years of space mission experiences.
- Bengaluru-based Pixxel is gearing up to launch its first satellite by the end of the year. The small satellite will go in a Russian launch vehicle and will focus on high clarity satellite imagery. It would be helpful for governments and private organisations in collecting AI-powered analytical data related to agriculture, climate, spread of crop pests and diseases, defence monitoring, and mining in order to find illegal operations, monitor oil and gas pipelines, natural disasters, forest fire etc.
- Astrome, another Bangalore based space-tech start up which has plans to launch a constellation of 198 Low Earth Orbit (LEO) satellites and Mumbai-based space-tech start-up Kawa Space are among the few Indian companies in this space.
- India has the entrepreneurial spirit, with perhaps one of the youngest sets of founders among space start-up hubs around the world. It has established a small and medium enterprises landscape that can cater to the manufacturing and testing of satellites and rockets. It has academic institutions that produce globally-matched human resources, which can be employed by the emerging start-ups in the space industry.
- The growth of Indian space start-ups in the last few years has fuelled entrepreneurial activity and innovation in satellites and Space Launch Vehicles (SLVs).
- Technology transfer by ISRO: In one of its latest transfers, the space agency has transferred Lithium ion-cells to a handful of state and private enterprises. Although start-ups do not figure in the list of beneficiaries, but private players have been integral to the supply chain and sub-contractual work for the Indian space programme.
- Space start-ups are already in the process of contributing to India's first human spaceflight mission – the Gaganyaan -1. Space start-ups have more drive and ambition than the bigger enterprises that tend to do overwhelmingly sub-contractual work on behalf of ISRO. Endowed with young technically qualified personnel and possessing initiatives of their own which are distinct, niche and disruptive, the start-up segment in the space sector can be at the cutting edge. Several start-ups have some working capital.
- Latest data available between 2016 and 2019 does indicate indicates that venture capital has enabled space unicorns which are involved in developing palm-sized satellites to Small Satellite Launch Vehicles (SSLVs) are gaining a toehold.

Challenges to reach global league:

- Government was pursuing extensive consultations on the passage of the Space Activities Bill since at least 2017, but the Bill is yet to become law. This

is largely due to the complexities involving space science and technology, which is a strategic sector, any ensuing legislation will need to be clear and enforceable in a manner that encourages private initiative, investment, management and technological input.

- It is still not clear how start-ups/private companies in India can get access to space frequencies to conduct routine telemetry, telecommand and payload data operations.
- India does have a satellite communication policy, but it was instituted with a Direct-To-Home (DTH) service provider in mind, rather than companies that would want other services (e.g. remote sensing).
- This creates uncertainty for the start-ups that plan to operate their own satellites. Friendly geographies outside India allows them to operate and collect their data over India or other areas of interest without having to go through the hassle of dealing with uncertainty in bureaucratic processes.
- A foreign company that wants to launch onboard the Polar Satellite Launch Vehicle (PSLV), which is often touted as one of the most cost-effective and reliable launch vehicles in the world, pay 0% Goods and Services Tax (GST). In contrast, an Indian space start-up has to cough up 18 per cent GST to launch from India.

To reach league of giants like SpaceX:

- There is need to bring clarity on the basis of US Federal Communications Commission (FCC), which provides the guidelines for private companies that either want to set up ground station facilities or access frequencies to operate their space assets.
- To incentivise product/service development, several space faring nations provide support programmes to help entrepreneurs develop their ideas. For example, the European Space Agency (ESA) has several programmes such as the Business Incubation Centres (BICs), which incubate over 100 space start-ups every year.
- In US, there are also several funding instruments for start-ups and small/medium-scale enterprises that allow competent companies to develop state of the art intellectual property that forms the basis of novel products/services.
- In contrast, there are no programmes or instruments that provide such support to entrepreneurs who want to create new space products/services in India. With the US still imposing some rules that restrict several grants/programmes to citizens, several Indian founders have now started leveraging the ESA start-up programmes to realise their ideas.

Business incubation centre for new space start-ups in India on the lines of European space Agency will help to realise of potential to reach big club of private players in space field.

Conclusion:

Although, recent steps liberating the space sector from over-regulation or governmental control is a positive step bringing gains to the space start-up segment, more clarity will be necessary particularly in the form of a comprehensive Space Activities Law spelling out the provisions ranging from licensing and Intellectual Property Rights (IPR) covering start-ups and customers such as the Indian armed forces.

10. What are the accountability and oversight measures in the budgeting processing of the Central Government? Explain.

केंद्र सरकार के बजट प्रसंस्करण में जवाबदेही और निगरानी के उपाय क्या हैं? समझाएं।

Demand of the question:

It expects students to write about the accountability and oversight measures in the budgeting process of central government.

Introduction:

India has been placed at 53rd position among 117 nations in terms of budget transparency and accountability, according to the Open Budget Survey. The survey, conducted by International Budget Partnership (IBP), has provided India's Union Budget process a transparency score of 49 out of 100, which is higher than the global average of 45.

Body:

The expenditure of the central government has increased from Rs 3.3 lakh crore in 2000-01 to Rs 30 lakh crore in 2020-21. With the objective of improving the quality of life of citizens, these public funds are spent across various sectors such as defence, security, agriculture, health, social welfare, education, and infrastructure.

Members of Parliament (MPs) have a core role in examining how this money is being raised, how it is planned to be spent, and whether such spending would lead to desired outcomes.

Accountability and Oversight through the Union Budget:

- Parliamentary oversight of public funds broadly involves two functions, scrutinising and sanctioning the government's expenditure and taxation proposals through the Union Budget; and examining the utilisation of funds that have been allocated for various activities, through parliamentary committees.
- Legislative control over the budget can be exercised through the General discussion on the budget, after it is presented in the Parliament. Discussion at this stage is limited to general examination of the budget and proposals of the government. At the end of the discussion, the Finance Minister gives a reply.

- After which, parliamentary standing committees which has both members of Lok Sabha and Rajya Sabha a examine detailed estimates of expenditure of all ministries, called Demands for Grants.
- One of the functions of Standing Committees is to scrutinise the allocation of funds to the ministries under their supervision. At present, there are 24 Standing Committees that together oversee the work of all the ministries. For instance, the Standing Committee on Defence scrutinises the Demands for Grants of all departments under the Ministry of Defence. Budgeted expenditure for defence stands at 4.71 lakh crore which is higher by 5% than revised estimates of 2019-20.
- These Committees examine the amount allocated to various programmes and schemes under the Ministry, and trends of utilisation of the money allocated to the Ministry.
- In doing so, officials of the Ministry are required to depose before the Committee to respond to queries and provide additional information in connection with the Demands for Grants being examined. While examining a ministry's expenditure, the Committees may consult or invite views from experts.
- Committee's report to parliament creates condition for informed debate on the budget involving Cut Motions and Voting on Demands for Grants, prior to the beginning of the next fiscal year.
- Passing of the Finance Bill and the Appropriation Bill without which the Government will not have the constitutional authority to collect tax revenue and to spend money from the Consolidated Fund.
- Parliamentary Committees dealing with the financial affairs of the government, viz. The Public Accounts Committee, the Estimates Committee, and the Committee on Public Undertakings.

However, Budget transparency and accountability assumes greater significance during the times of the COVID-19 pandemic,

- As a sizable chunk of public expenditure is likely to get financed by higher magnitudes of government borrowing not just in the current fiscal but in the subsequent couple of years too.
- Union Government should also publish a Pre-Budget Statement, which can be scrutinised by the legislators and the public at large before the annual budget is presented.
- Creating an integrated budget and expenditure information architecture at every district headquarter and enabling the District Development Coordination and Monitoring Committee to use this information to enforce accountability of the executive for budget implementation, will substantially improve budget transparency and accountability at the district level in the country.

Conclusion:

The Union Budget is perhaps the most important and comprehensive platform for the Central Government to implement its economic policies. It affects almost every sector of the economy as well as every section of the population. The policies driving the budget and implementation of the budget proposals are therefore of direct relevance to the entire population which needs to be reformed to bring accountability and stringent parliamentary oversight.

11. What do you understand by fiscal targeting? What is its significance for the economy in general? Illustrate.

राजकोषीय लक्ष्यीकरण से आप क्या समझते हैं? अर्थव्यवस्था के लिए इसका क्या महत्व है? उदाहरण देकर स्पष्ट करें।

Demand of the question:

It expects students to write about the concept of Fiscal targeting and its significance for the economy in general.

Introduction:

Fiscal targeting assumes more importance as many countries adopted stimulus measures to deal with economic slowdown. However, excess liquidity may carry a high social cost. Beyond the usual fears about debt and inflation, there is also good reason to worry that the excess cash in banks will be funnelled toward financial speculation, leading to still more precautionary behaviour, and discouraging both consumption and the investment needed to drive the recovery.

Body:

Fiscal targeting:

- Fiscal deficit targeting is also known as fiscal targeting to achieve objective of fiscal consolidation. India follows obligation under FRBM act to limit its fiscal deficit in prescriptive manner and adopt various strategies to deal with fiscal deficit.
- The FRBM Act, aimed at establishing financial discipline, provides for a trigger mechanism for a deviation from the estimated fiscal deficit on account of structural reforms in the economy with unanticipated fiscal implications.
- Fiscal targeting resolves around judicious and balanced call keeping in mind the need to support the economy on one hand and the sustainable level of fiscal deficit that is consistent with macroeconomic and financial stability on the other.
- Centre's fiscal deficit in 2020-21, as things stand now, could be 1.7-1.8 percentage points higher than the 3.5% of GDP, which was targeted in the Budget, said Chief Economic Advisor Krishnamurthy Subramanian in June. Assumption of Fiscal deficit to be 5.2 -5.3% of GDP is based on 10% nominal GDP growth, which would have been tough without COVID-19 outbreak.

However, the Indian economy seems caught between tight fiscal targets prescribed under the FRBM (Fiscal Responsibility and Budget Management) review and a government which treats them as cast in stone, even at a time when the economy is reeling under the impact of the COVID-19 crisis.

Significance of fiscal targeting for economy:

- In the absence of fiscal targeting, higher fiscal deficit for an economy means increased government borrowing, which in turn implies higher interest burden. India has a debt-to-GDP ratio of 70%, which is the highest among its emerging market peers.
- Even though, Most of India's government debt is internal (from domestic market), implying less external vulnerability. Nevertheless, high government debt implies high interest burden and the threat of economic instability.
- Many of the developed economies like the US and Japan have much higher debt-to-GDP ratio. However, their interest burden is much less as their governments are borrowing at much lower interest rates.
- The other disadvantage of a high debt-to-GDP ratio is that it has an impact on the country's credit ratings and investor sentiments.
- Higher government borrowing crowds out private investment in the economy.
- While there is no doubt that the government should be fiscally prudent, what is being increasingly debated is whether our fiscal management should be counter-cyclical. This means that when economic growth is above potential, policymakers should reduce fiscal deficit. Similarly, when economic growth is poor, fiscal deficit should be allowed to expand (within a ceiling) in order to support economic growth.
- While it is ideal to have a rule-based fiscal consolidation path, experience shows that there are threats of genuine disruptions. Like present COVID-19 pandemic recession following a fiscal deficit target under present circumstance could result in adverse impact on developmental expenditure.
- However there is need to be more prudent in not allowing unproductive expenditure on populist measure.

Conclusion:

In the present COVID-19 pandemic induced slowdown, governments have to consider paradox of thrift and spend more. However, all measures should be well targeted to optimise the outcome. There is need to maintain balance between expansionary austerity and fiscal slippage.

12. What are the risks associated with the development cycle of a medicine or vaccine? What are the regulatory provisions to ensure drug safety in India? Examine.

किसी दवा या वैक्सीन के विकास चक्र से जुड़े जोखिम क्या हैं? भारत में दवा सुरक्षा सुनिश्चित करने के लिए नियामक प्रावधान क्या हैं? जांच करें।

Demand of the question:

It expects students to write about the risk associated with the development of medicine or vaccine along with regulatory provisions to ensure drug safety in India.

Introduction:

The University of Oxford and AstraZeneca Plc.'s experimental vaccine is the first to enter the final stages of clinical trials to assess how well it works in protecting people from becoming infected by the virus that causes the corona virus disease (Covid-19), which has infected 9.4 million and killed 480,000 globally since late December.

Body:

There were 13 experimental vaccines in clinical trials and another 129 in the preclinical evaluation stage on June 22, according to the World Health Organisation's draft landscape of Covid-19 vaccines.

Risk associated with development cycle of a medicine or vaccine:

- There are two kinds of risk associated with the development of medicine or vaccine. First is associated with the developer of drug or vaccine whereas second associated with the process of development and use of medicine or vaccine.
- Risks to developer: Cost of research and development (R&D), biological and technical challenges associated with targeting more complex diseases, competition with better standards of care, larger scale of clinical studies to prove safety and efficacy and last but not least an increasingly stringent regulatory environment.
- There is chance of too many resources of pharmaceutical companies might get wasted in development of one particular drug or vaccine in competition with others.
- Vaccine development, on average, takes 10.71 years from the preclinical phase, and has a success rate of 6%, according to a study in the science journal, PLOS One. Some remain elusive for decades despite massive investments, like for vaccines against HIV, the virus that causes AIDS.
- There is always chance of retreat of disease even before the development of medicine or vaccine dedicated for that disease which might led to financial disaster.
- Risks associated with processes and use: Scientists and medical experts are concerned that rushing a vaccine could end up worsening the infection in some patients rather than preventing it.
- Risk of vaccine enhancement, where instead of protecting against infection, the vaccine can actually make the disease worse when a vaccinated person is infected with the virus. The mechanism that causes that risk is not fully

understood and is one of the stumbling blocks that has prevented the successful development of many vaccines

- Researchers would take months to test for the possibility of vaccine enhancement in animals. Given the urgency to stem the spread of the new corona virus, some drug makers are moving straight into small-scale human tests, without waiting for the completion of such animal tests.
- There is a risk of immune enhancement: Some vaccinated animals developed more severe disease compared with unvaccinated animals when they were exposed to the virus during previous SARS outbreak trials.
- The best-known example occurred in a U.S. trial in the 1960s of a vaccine created by the NIH and licensed to Pfizer Inc to fight respiratory syncytial virus (RSV), which causes pneumonia in infants. The vast majority of babies who received the vaccine developed more severe disease, and two toddlers died.
- A more recent example occurred in the Philippines, where some 800,000 children were vaccinated with Sanofi's dengue vaccine, Dengvaxia. Only afterward did the company learn that it could increase the risk of more severe disease in a small percentage of individuals.
- Study of side effects: It might take long time to gauge side effects among vaccinated set and genetic susceptibility of drug or vaccine.
- Vaccine derived virus: Example of vaccine derived polio virus, on rare occasions, if a population is seriously under-immunized, an excreted vaccine-virus can continue to circulate for an extended period of time. The longer it is allowed to survive, the more genetic changes it undergoes. In very rare instances, the vaccine-virus can genetically change into a form that can paralyse known as a circulating vaccine-derived poliovirus (cVDPV).
- Ethical challenge: If we could develop a drug or an antibody that would be able to mitigate the disease, we would still need to think about the ethical concerns of a human challenge. There's also the question of who volunteers for such a challenge. There's been a whole history extremely fraught where minorities were used as experimental subjects without their understanding or consent.

Regulatory provisions for drug safety in India:

- Under the Drug and Cosmetics Act, 1940 (latest amendment in 1995) subsequent Drugs and Cosmetic Rules, 1945 the regulation of manufacture, sale and distribution of Drugs is primarily the concern of the State authorities.
- While the Central Authorities are responsible for approval of New Drugs, Clinical Trials in the country, laying down the standards for Drugs, control over the quality of imported Drugs, coordination of the activities of State Drug Control Organisations and providing expert advice with a view of bring about the uniformity in the enforcement of the Drugs and Cosmetics Act.

- Drug Controller General of India is responsible for approval of licenses of specified categories of Drugs such as blood and blood products, I. V. Fluids, Vaccine and Sera.
- Demonstration of safety and efficacy of the drug product for use in humans is essential before the drug product can be approved for import or manufacturing and marketing in the country.
- After preliminary evaluation of application(if goes well), regulatory evaluation starts with the permission to conduct BE-Bioequivalence and Permission to conduct CT-chemical trial, then SEC-Subject expert committee reviews it and give NOC certificate then again review of BE/CT report.
- Simultaneously, after review of CMC-Chemistry and manufacturing control data; if satisfactory IPC-Indian Pharmacopeia commission testing NOC to applicant. After completion on both front DCGI can inspect on-site facility.
- DCGI instituted a system of review by a Subject Expert Committee (SEC) in 2012 to decide whether a new drug should be approved for the Indian market. The SEC was meant to have external experts who were specialists in the field of therapy being considered. After a SEC approval, the DCGI is required to take the final call on whether to approve a drug.
- All clinical trials conducted in India to be prospectively registered, i.e. before the enrolment of the first participant to Clinical Trail Registry of India.
- The Clinical Trials Registry- India hosted at the ICMR's National Institute of Medical Statistics is a free and online public record system for registration of clinical trials being conducted in India. Initiated as a voluntary measure later trial registration in the CTRI has been made mandatory by the Drugs Controller General India (DCGI).
- An Ethics Committee is a committee comprising of medical, scientific, non-medical and non-scientific members, whose responsibility is to ensure the protection of the rights, safety and well-being of human subjects involved in a clinical trial and it shall be responsible for reviewing and approving the protocol, the suitability of the investigators, facilities, methods and adequacy of information to be used for obtaining and documenting informed consent of the study subjects and adequacy of confidentiality safeguards.

Conclusion:

All the forces of medical and pharmaceutical fraternity are working together against the common enemy- corona virus. Unprecedented collaboration at world level will certainly reduce the time of medicine or vaccine development however utmost care and caution necessary to mitigate humanitarian and financial risks associated with development of medicine and vaccine.

13. What according to you is the most important human value? Why? Substantiate.**Demand of the question:**

It expects students to define human values and why are they important. Students should also write about one most important value with relevant examples.

Introduction:

Humankind is going through a new and unprecedented experience with the rapidly spreading Covid-19 pandemic. A major challenge is to protect human health and dignity and to respect universal values in the current context.

Body:

Human Values are prioritized principles - ideas - traits which individual-society feels worthy to practice to guide their conduct and decisions.

- Human values can be good or bad;
- Love, compassion, tolerance, acceptance, honesty, mercy, generosity, etc. are considered as good values.
- While, hatred, ignorance, intolerance, disrespect. etc. are considered bad
- Human values are influenced by family, society, educational institutions, peers, role models, etc.
- However even so called bad values have relevance in certain situation.

Roy Disney claimed that, 'It's not hard to make decisions once you know what your values are.' Thus, all values have great importance, but tolerance as a human value has special significance.

Tolerance can be defined as 'Harmony in differences'.

World is very diverse, human life is diverse this diversity creates a wide scope for differences. Differences can be in ideology, culture, values, way of life, ambitious, etc.

Tolerance helps to:

Encourage liberty, dignity, equality, equity, justice, fraternity, brotherhood.

Maintain peace and communal harmony.

Make friends

Communal harmony

Create ecosystem to develop consensus

Base for inclusive democracy

- I could make some good lifelong friends irrespective of religion, caste, gender, etc. because of tolerance to each other's differences and finding common grounds on which a trust based friendship could evolve.
- I can mix up with people of different age groups – as tolerance provides a realization of a certain mind-set that comes along with certain age. Small kids, teens, elders can be stubborn sometimes but with tolerant approach we can assist them in achieving mental stability.

- As an administrator, tolerance can attract good-will, trust, faith of public and generate an inclusive framework for good governance.
- A tolerant husband can compassionately acknowledge the aspiration of her wife and together they can overcome undue social barriers.

Conclusion:

With determined practice of tolerance along with all other human values we can realize the goal of ‘Sabka Sath – Sabka Vikas and Vasudeva Kutumbakam’.

14. Is there a difference between a strong leader and strong leadership? Explain with the help of suitable examples

Demand of the question:

It expects students to define and differentiate between leader and leadership with relevant examples.

Introduction:

A strong leader is Primus inter pares (first among equals) by virtue of his ability while strong leadership is the quality of ability. Leadership is by virtue of his actions that deploy leader’s ability.

Body:

Strong Leader	Strong Leadership
Leader is entity with ability	Leadership is qualitative ability of collective effort
Leader can be selected - elected	Leadership has to be nurtured and cultivated
One can be leader by birth	Leadership has to be by worth
Leader must be brave, fearless, risk-taker	Leadership needs empathy, compassion, inclusive nature.
A leader can be influential	Leadership is using this influence to organize people toward an objective
A leader can be Visionary	Leadership is to cast this vision on subordinates to achieve a set objective
Leader can be self-motivated.	Leadership lies in motivating others
Leader should led from the front	Leadership is leading from front
Leader recognises opportunity	Leadership encashes the opportunity
Leader should have ability to make tough decisions	Ability to implement tough decisions and be accountable for them is leadership
Leader can go alone to make anything	Leadership takes every one along to

right

make anything right.

- Muhammad Bin Tughlaq a medieval king was visionary, took innovative tough decisions of shifting capital, token currency, etc. but was not able to implement it efficiently.
- Democratic system gives birth to many leaders after every election but very few are able to create impact any sustainable impact through their leadership skills.

But, Leader and Leadership are not always different, only few good leaders are equipped with the leadership abilities.

Example:

- Shivaji Maharaj was leader by birth but he also cultivated leadership and became worthy of title 'Chatrapati'.
- Former People's President APJ Kalam was a visionary himself and gave that vision to a nation which now idealises that vision.

Many times people with leadership skills are not formally considered as leaders especially social reformers.

Example: Noble peace prize winner Kailash Satyarthi generated a change in the lives of vulnerable children through his leadership skill. But such people require no formal tags to perform their duty.

Conclusion:

Thus, integration of Leader and Leadership is needed to realize the true potential of an Individual and society.

15. Is it ethical for a political party to leverage political gains at the time of an external crisis? Critically comment.

Demand of the question:

It expects students to write about ethics in politics. Students should also relate ethics in politics with political ethics during external crisis and reveal both positive and negative aspects.

Introduction:

Political ethics is the practice of making moral judgments about political goals and political action. During external crisis the political goals and action of a political party are expected to be aligned with the national interest.

Body:

Political ethics is divided into two branches:

- One branch, the ethics of process (or the ethics of office), focuses on public officials and the methods they use.
- The other branch, the ethics of policy (or ethics and public policy) concentrates on judgments about policies and laws.

In judging whether a political parties leverage for political gains is justified in external crisis, we should consider:

- the importance of the goal of the leverage;
- the availability of alternative means for achieving the goal;
- the identity of the victims of the leverage (other officials, other governments, all citizens);
- the accountability of the political party (the possibility of approving the leverage in advance or discovering it later);

Thus, it can be ethical for a political party to leverage political gains at the time of an external crisis:

- Consequentialists object that if the action is justified, then the political party is not guilty of anything.
- It is their democratic right to counter the views and measures of ruling political party, which applies even for external crisis.
- It also makes ruling party accountable to opposition political parties and to its citizens
- It helps to build a consensus for a unified response to external threat.
- It represents a view of certain section of society, which needs to be considered for maintenance and development of inclusive democracy.

However, it may not be ethical for a political party to leverage political gains at the time of an external crisis:

- Ethics requires political parties to avoid harming the innocent, external crisis have potential to harm socio-economic lives of citizens.
- Deontologists object that if the action is truly wrong, the political party should simply not do it.
- It should not push ruling party and nation towards an undue aggression like war, sanctions, etc.
- It should not be done to create negative influence on society.
- It should not misuse sentiments-emotions of the citizens.

Conclusion:

To what extent does the end justify the means in politics? is a long pending question, hence, political parties are expected to take a balanced stand that protects universal rights of innocent citizens of both the parties involved in the external crisis that values life over death, love over hate and peace over threat.