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GENERAL STUDIES (TEST CODE : 759)

Name of Candidate	VI SHAKHA DABRAL		
Medium Hindi/Eng.	ENGLISH	Registration Number	29481
Center	M.N	Date	1/04/17

INDEX TABLE			INSTRUCTIONS
Q. No.	Maximum Marks	Marks Obtained	
1	12.5		1. Do furnish the appropriate details in the answer sheet (viz. Name, Registration Number and Test Code). उत्तर पुस्तिका में सूचनाएं भरना आवश्यक है (नाम, प्रश्न-पत्र कोड विद्यार्थी क्रमांक आदि)। 2. There are TWENTY questions printed in HINDI and ENGLISH. इसमें बीस प्रश्न हैं तथा हिन्दी और अंग्रेजी दोनों में छपे हैं। 3. All questions are compulsory. सभी प्रश्न अनिवार्य हैं। 4. The number of marks carried by a question/part is indicated against it. प्रत्येक प्रश्न/भाग के अंक उसके सामने दिए गए हैं। 5. Answers must be written in the medium authorized in the Admission Certificate, which must be stated clearly on the cover of this Question-Cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one. प्रश्नों के उत्तर उसी माध्यम में लिखे जाने चाहिए जिसका उल्लेख आपके प्रवेश पत्र में किया गया है और उस माध्यम का स्पष्ट उल्लेख प्रश्न-सह-उत्तर (क्यूसीए) पुस्तिका के मुख्य पृष्ठ पर अंकित निर्दिष्ट स्थान पर किया जाना चाहिए। उल्लिखित माध्यम के अतिरिक्त अन्य किसी माध्यम में लिए गए उत्तर पर कोई अंक नहीं मिलेंगे। 6. Word limit in questions, if specified, should be adhered to. प्रश्नों में शब्द सीमा, जहाँ विनिर्दिष्ट है, का अनुसरण किया जाना चाहिए। 7. Any page or portion of the page left blank in the Question-Cum-Answer Booklet must be clearly struck off. उत्तर पुस्तिका में खाली छोड़ा हुआ पृष्ठ या उसके अंश को स्पष्ट रूप से काटा जाना चाहिए।
2	12.5		
3	12.5		
4	12.5		
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15	12.5		
16	12.5		
17	12.5		
18	12.5		
19	12.5		
20	12.5		
Total Marks Obtained:			
Remarks:			

75, 3rd Floor, Old Rajinder Nagar Market, Near Axis Bank, New Delhi – 110060

103, 1st Floor, B/1-2, Ansal Building, Behind UCO Bank, Dr. Mukherjee Nagar, Delhi – 110009

EVALUATION INDICATORS

1. Alignment Competence
2. Context Competence
3. Content Competence
4. Language Competence
5. Introduction Competence
6. Structure - Presentation Competence
7. Conclusion Competence

Overall Macro Comments / feedback / suggestions on Answer Booklet:

1.

2.

3.

4.

5.

6.

All the Best

Answer all the questions in NOT MORE THAN 200 WORDS each. Content of the answers is more important than its length. All questions carry equal marks.

12.5X20=250

1. India has the lowest tax-to-GDP ratio among countries with a similar per capita income on a purchasing power parity basis. Explain the reasons for the low tax-to-GDP ratio in India. What measures can be taken to correct this situation?

भारत का कर-GDP अनुपात वस्तुतः क्रय-शक्ति समता के आधार पर भारत जैसे प्रति व्यक्ति आय वाले देशों के बीच न्यूनतम है। भारत में न्यून कर-GDP अनुपात के कारणों की व्याख्या कीजिए। इस स्थिति को सही करने के लिए क्या उपाय किए जा सकते हैं?

India's tax to GDP ratio at 16.6%
is well below the emerging market economies (EME.) and the OECD averages of 21% and 34% respectively.

Since taxation provides governments with the required resources it is key to a country's long run economic and social development.

Reasons for India's low tax-GDP ratio:

- 1) Structural: low per capita income, high poverty levels.
- 2) Small tax base: According to Shome Paney, in the last 10 years though the direct tax collection has increased by more than 700%, the number of tax payers has merely grown by 35%.
- 3) Tax exemption policies and the resultant low tax buoyancy.
- 4) High tax evasion and tax avoidance.

- 5) Human resource crunch in tax authorities.
- 6) Continued litigation and dispute settlement due to adversarial tax issues.
- 7) Exploitation of loopholes in double taxation avoidance treaties which leads to 'round-tripping' of money.
- 8) Existence of a parallel economy where major transactions are carried out in cash and the government has no records relating to it.
- 9) Informal market is still out of the reach of tax authorities.
- 10) Skewed nature of taxation structure where more reliance is on indirect taxes than on direct taxes.

Measures required:

- 1) Digitisation of transactions in order to bring it into the white economy.
- 2) Improve compliance through the GAAR provisions.
- 3) Amend the loopholes in the Double taxation avoidance treaties.
- 4) Earliest implementation of the GEP.

- 5) Fast tracking of tax disputes to reach early resolution
- 6) Efficient targeting of subsidies and restructuring tax exemptions given.
- 7) Bringing in property taxation laws
- 8) Creation of Tax Policy Council and tax research unit as recommended by the Shome Panel.

The recent demonetisation move, passage of GST, efforts to merge CBDT and CBEC and amendments to DPAA are steps in the right direction.

2. In spite of various initiatives, the condition of the power sector still remains one of the core challenges for India. Comment.

विभिन्न पहलों के बावजूद, विद्युत क्षेत्र की स्थिति भारत के लिए अभी भी एक प्रमुख चुनौती बनी हुई है। टिप्पणी कीजिए।

Power or electricity is one of the most important components of infrastructure affecting a country's economic growth and well being. Efforts have been made through decades to reform the power sector in India such as

- 1) Efforts to create 'one market' in power
- 2) UDAY scheme to improve the health of DISCOMS.
- 3) DDUGJY to provide continuous power supply to rural India.
- 4) Diversifying source of energy generation by focusing on renewable energy sources and increase its share to 17.5 GW.
- 5) Promoting efficiency in energy usage through DELP, subsidized LED bulbs, Street Lighting National Programme (SLNP)
- 6) Strengthening distribution network through Integrated Power Development scheme (IPDS)
- 7) National Smart Grid Mission.

In spite of the above initiative, the

power sector continues to be facing many ills.

- 1) Per capita energy consumption in India is only 1010 kwh compared to China's 4,000 kwh with developed nations averaging around 15,500 kwh.
- 2) Around 280 million people in the country do not have access to electricity, with some states in East and North East having less than even 30% households with access to electricity.
- 3) Inadequacy of the UDAY scheme to revive the health of BISCOMs.
- 4) High transmission losses and theft of power, which according to the Central Electricity Authority stood at 23.04%.
- 5) Fuel availability concerns and subsequent dependence on imports.
- 6) Issues related with land acquisition, environmental clearances and subsequent delays.
- 7) High cost of renewable energy and India's lack of expertise in the technology required.
- 8) Price and non price barriers to open access policy.
- 9) Complexity of tariff structure which prevents economic actors to respond sufficiently to

price signals.

- 10) Slow pace of reforms in the sector as electricity is a concurrent subject under the constitution.

The government must take up the agenda to reform the sector in all ways possible at the same time working towards the success of International Solar Alliance to move towards clean sources of energy.

The power sector should provide for inexpensive and reliable power to ensure sustainable economic development. To sustain GDP growth rate of around 8-9%, it is imperative that the power sector also grows at the same rate.

3. Examine the reasons for poor performance of public sector banks in India. Give an account of the steps taken by the government and RBI to improve their performance. Also analyse whether the risks arising from the consolidation of the Indian banking sector outweigh the potential longer-term benefits.

भारत में सार्वजनिक क्षेत्र के बैंकों के दयनीय प्रदर्शन के कारणों का परीक्षण कीजिए। सरकार और RBI द्वारा इनके प्रदर्शन में सुधार करने के लिए उठाए गए कदमों का विवरण दीजिए। साथ ही विश्लेषण कीजिए कि क्या भारतीय बैंकिंग क्षेत्र के समेकन से उत्पन्न जोखिम दीर्घावधि में प्राप्त होने वाले संभावित लाभों पर भारी पड़ेंगे?

Public Sector Banks are banks where a majority stake (i.e. more than 50%) is held by the government. There are a total of 27 PSBs in India.

They have been facing multiple challenges on account of rising NPAs, poor governance, deteriorating asset quality etc.

The reasons for their poor performance are:

- 1) Economic slowdown since 2008 has put pressure on PSBs to lend more to prime borrowing sectors even if the projects are unviable. This has given rise to the problem of NPAs.
- 2) Corporate debt restructuring of bad loans of companies and loan waivers leaves PSBs in a poor financial position.
- 3) Dual regulation by RBI and the finance ministry often creates confusion.
- 4) Corrupt tendencies of certain officials and mal practices.

To enhance the performance of PSBs the government has initiated the Indradhanu framework. Under this focus will be on:

- 1) Appointments
- 2) Capitalisation.
- 3) Establishment of Bank Board Bureau (BBB)
- 4) Strengthening of risk control measures
- 5) Improving bank management
- 6) governance reforms, and
- 7) development of a Framework of Accountability

In keeping with the above agendas government has already constituted the BBB and capitalised PSBs to the tune of more than Rs 30,000 crore.

The RBI has also undertaken certain steps.

- 1) Asset liability Management and liquidity planning through the S/LS scheme
- 2) Scheme for restructuring Stressed Assets (S4A) to manage bad loans.
- 3) Corrective Action Plan for recovery or sale of unviable accounts.
- 4) Provisions for Asset Reconstruction Companies

5.) Basel III norms to maintain the viability of banks.

Consolidation has been seen as an important way to tackle the large infrastructure needs of the country. Currently (except for State Bank of India post merger) no RSB in India is listed in Top 100 in terms of asset size.

Consolidation is expected to increase capital efficacy, efficiency and also improve the ability of banks to recover bad loans. Moreover it will bring synergies in business operations, branch rationalisation and availability of cheaper credit.

However, on the flip side the government may be required to increase bailouts in times of stress.

Creating large banks is not the only solution what is required is their operationalised in a calibrated manner through:

- 1) Cost rationalisation
- 2) branch rationalisation with special focus on rural areas.
- 3) Inculcating best international practices.

4. Tax treaties intended to avoid double taxation have in many cases become instruments for double non-taxation. Elaborate. List the major amendments in the India-Mauritius DTAA and the advantages that are expected to accrue due to it.

दोहरे कराधान से बचाव के प्रयोजन से की गई कर संधियाँ कई मामलों में दोहरे गैर-कराधान का साधन बन गयी हैं। विस्तारपूर्वक बताइए। भारत-मॉरीशस DTAA में हुए प्रमुख संशोधनों और इनके कारण प्राप्त होने वाले अपेक्षित लाभों की सूची प्रस्तुत कीजिए।

DTAA is a tax treaty signed between two countries to provide relief on dual taxation and to in this way raise investments.

However, the DTAA's are being used and abused in other order to 'round-trip' money and hence side step taxation.

Through this corporations avoid taxation in both the countries and deny the governments of their rightful revenue.

Major amendments of India-Mauritius DTAA:

- 1) Gives India the right to tax capital gains arising from sale or transfer of shares of an Indian company acquired by a Mauritian tax resident.
- 2) The shares acquired between April 1, 2017 and March 1, 2019 will attract a capital gains tax at a 50% discount on domestic

tax rate.

Thus, under the amended treaty the right to tax capital gains will be available to the country whose the income arose.

Benefits:

- 1) Will curb black money generation.
- 2) Prevent money laundering and tax avoidance.
- 3) Will increase the revenues of respective governments.
- 4) Streamline the flow of investment.
- 5) Increase cooperation between India and Mauritius.
- 6) Reduce market volatility.

This amendment is a step in the right direction and must be replicated with other countries to the maximum extent possible.

5. Emerging ICT and their appropriation by society constitutes a threat that demands new competencies and practices to be developed and integrated in the existing police work. Discuss with examples.

उभरती ICT एवं समाज द्वारा उसके प्रयोग में एक ऐसा खतरा समाहित है जो पुलिस के वर्तमान कार्य में नई क्षमताओं और प्रथाओं के विकास और समेकन की मांग करता है। उदाहरण सहित चर्चा कीजिए।

ICT and the changes that have been brought in it in the past two decades has changed the way we interact with each other. It has not only increased global cooperation and cultural integration but has also been one of the guiding pillars of globalisation.

However, the benefits of ICT do come with some serious challenges, one of which is the way crime can be induced and committed.

Hacking into governments' official ^{online} depositories, the recent breach of navy's documents and hacking into accounts of individuals have some examples.

Further use of social media to spread hate and crime and as a channel for "direct solicitation" by terrorist organisations such as the ISIS pose new and serious challenges to national security.

These new challenges demand as equally competent and well equipped law enforcement agencies, nevertheless the

traditional and business as usual way of policing has become redundant and obsolete.

Some of the tools and practices that must be integrated with and incorporated into the police work are:

- 1) Increased coverage and surveillance through CCTVs.
- 2) Radio frequency identification
- 3) Electronic trespass and e-identification.
- 4) GPS tracking.
- 5) Intelligent sensors. etc.

There will ensue that police forces are two steps ahead of anti-social and anti-national elements by

- 1) Providing them with the requisite tools, techniques and technologies to break into nefarious networks.
- 2) Prevent radicalisation of youth by early identification.
- 3) Curb organised crime by improving the efficiency and reach of the law enforcement agencies.
- 4) ~~Facilitate~~ Facilitating the creation of big data pool which may be brought into

use for tracking & analysis and data sharing among various investigative agencies.

Examples of steps in this direction:

- 1) NCRB is implementing the Crime and Criminal Tracking Network and System
- 2) NAPGRID, CMS, National Counterterrorism Centre.
- 3) Aarokshi of Rajasthan, e-cops of Andhra Pradesh must be replicated in other states as well.

Further efforts must be undertaken to improve the police-population ratio, train the public servants in changing technology, build on community-policing systems and improve on their capabilities.

6. What are P-Notes and how do they impact the financial system in India? In this context, also highlight the recent regulatory measures taken by SEBI to deal with them.

पी-नोट्स क्या हैं और वे भारत में वित्तीय प्रणाली को किस प्रकार प्रभावित करते हैं? इस संदर्भ में, सेबी द्वारा हाल ही में इनसे निपटने के लिए किए गए विनियामक उपायों पर प्रकाश डालिए।

Participatory notes are offshore derivative instruments with Indian shares as their underlying assets. They

- 1) allow foreign investors to buy stocks listed on Indian exchange without being listed/registered.
- 2) Provide for anonymity and hence are preferred by Foreign Institutional Investors.

Impact on Indian financial system:

- 1) It allows flow of money in the Indian economy.
- 2) However, this money could be black or raised through nefarious activities (drug trafficking, terrorism etc).
- 3) The government is not able to track the source of such funds because of the anonymity clause.
- 4) Are blatantly discriminatory since home investors have to undergo the scrutiny of SEBI and as well as submit KYCs.
- 5) Can be used as a tool to target a country's economy by allowing opaque

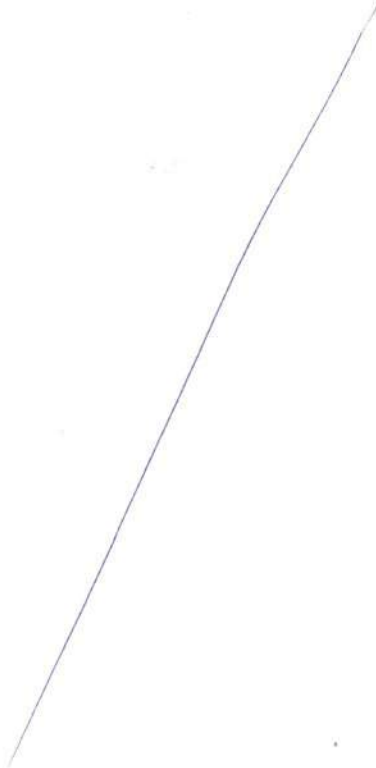
private equity companies of other countries to hold share in critical sectors (eg oil).

6) Further they may lead to market volatility.

Recent measures by SEBI

- 1) SEBI has issued guidelines that transfer of P-notes will be restricted and allowed only after prior consent of the issuer.
- 2) Transfer of P-Notes being allowed only to a pre-approved list of subscribers.
- 3) Financial Intelligence Unit will be informed of any suspicious transaction.
- 4) SEBI has tightened KYC and disclosure requirements for ODIs.
- 5) Anti-Money Laundering regulations will be applicable on P-Notes.

As a result of these measures P-Notes now make up for just about 10% of the total foreign investment inflow, against over 55% in 2007.



7. The rising levels of e-waste generation in India have been a matter of concern in recent years. Examine the underlying causes of this scenario and the challenges associated with it. How can the new E-Waste Management Rules, 2016 help in meeting these concerns?

भारत में ई-अपशिष्ट उत्पादन का बढ़ता स्तर हाल के वर्षों में चिंता का विषय रहा है। इस परिदृश्य के अंतर्निहित कारणों एवं इससे संबद्ध चुनौतियों का परीक्षण कीजिए। ई-अपशिष्ट प्रबंधन नियम, 2016 इन चिंताओं का समाधान करने में किस प्रकार सहायता कर सकता है?

The rise in per capita income of India and the subsequent rise in the standard of living has led to increased use of electronics as well.

As the reach of mobiles, computers and other electronics has increased in India, India has become the fifth largest generator of e-waste. Roughly 18.5 lakh tonnes of electronic waste is generated in the country each year.

Causes:

- 1) Short life span of electronics which is aimed at increased consumption adds tonnes of e-waste to the environment.
- 2) Technological developments where and rise in consumerism where it's a race to replace old models with the new ones.

Challenges:

- 1) E-waste management has become a policy

challenge and is expected to increase in the coming years.

- 2) Poor infrastructure and legislative framework which allows only for 2.5% of India's total e-waste getting recycled,
- 3) Unorganised nature and use of unscientific techniques to manage e-waste poses threats to environment and health,
- 4) Lack of segregation of urban solid waste.

In view of the above challenges the MoEFCC issued the new e-waste management Rules 2016.

Salient features:

- 1) It replaces the E-Waste (Management and Handling) Rules, 2011.
- 2) CFL and other mercury containing lamps have been included in the category of items which are mandatorily to be safely disposed off.
- 3) Manufacturer, dealer, refurbisher and producers have been introduced as additional stakeholders in e-waste management.
- 4) Extended Producer Responsibility (EPR) has

been introduced, ^{under} which the producers have to provide for safe disposal of e-waste without any harm to the environment.

- 5) Has given more teeth to CPCB to ensure proper implementation and monitoring of EPR.
- 6) States are also required to take skill development of workers to revamp the e-waste management process.

It must be ensured through regular monitoring and assessment that these rules are being followed in letter and spirit to realise the objectives of the guidelines.

8. Terror groups, much like corporate bodies have well and truly embraced and exploited the benefits of globalisation. Discuss the statement with reference to terror financing and propaganda activities.

कॉर्पोरेट निकायों की ही भाँति आतंकवादी समूहों ने भी सही मायने में काफी हद तक वैश्वीकरण के लाभों को आत्मसात और उनका दोहन किया है। आतंकी वित्तपोषण एवं प्रचार गतिविधियों के संदर्भ में इस कथन पर चर्चा कीजिए।

In the era of globalisation corporate ^{value} bodies depend on a multiple chain system for finance, organisation, design, production and marketing. The terror organisations have in a similar manner organised their functioning and expanded their reach beyond national borders.

In this context, globalisation where it has transcended national boundaries to increase cooperation has at the same time internationalised terrorism by providing links in terms of ease of connectivity, information dispensation and organisation.

Terror financing:

- 1) Use of social media for direct solicitation and to raise funds globally.
- 2) Exploiting loopholes in legal mechanisms of nations to generate black money and hence fund terrorism.

- 3) Legal banking channels to Money Transfer service schemes (MISs) and Fake Indian Currency Notes (FICN) to fund terrorists. Example, as done by Pakistan, use of hawala system etc.
- 4) Drug trafficking for example through the "Golden Crescent" and "Golden Triangle" to raise funds for nefarious activities.
- 5) A recent report indicated the increasing possibility of "digital laundering" due to increasing fraction of digital currency, eg Bitcoin.
- 6) Use of unregulated and non-transparent NGO networks to carry out terrorist activities, eg in Pakistan.

Most of these transfers take place in a globalised, networked world, linking a large number of countries in a financial web.

Propaganda

- 1) Use of social media to radicalise youth to take up arms against the people and state.
- 2) This has resulted in a new kind of terror phenomenon where 'lone wolf' attacks take place called the "war of attrition".

Example: British Parliament attack, Nice attacks etc.

Even though the tools of globalisation have been misused by terrorist organisation, it is very much possible for governments to free the world of this menace.

Financial Action Task Force has it been instrumental in curbing money laundering and terror financing, similar such steps must be taken globally.

9. What is net-metering? Critically analyse its potential in incentivising distributed generation in India.

नेट-मीटरिंग क्या है? भारत में वितरित उत्पादन को प्रोत्साहित करने में इसकी क्षमता का आलोचनात्मक विश्लेषण कीजिए।

Net metering is a system through which consumers who produce their own electricity, example! through solar panels, are facilitated to feed back the unused power back into the grid and provide them with compensation.

Net metering has immense potential to incentivise "distributed generation" in India i.e. power generation at the point of consumption by!

- 1) Promoting adoption of cleaner energy sources through facilitating localised power generation,
- 2) It can help stabilize the national, regional and state grids,
- 3) reducing AT&C losses, and help cut down ~~extra~~ per capita energy footprint.
- 4) Relieve the DISCOMs of the immense pressure they are experiencing.

However, there are certain issues that the concept of net metering faces:

- 1) Regional disparity in capacity where Maharashtra

and Karnataka have a limit of 1MW,
Andhra Pradesh has a limit of 0.5MW.

- 2) Expensive technology in terms of installation and maintenance.
- 3) Lack of credit facilities to provide traction to the concept.
- 4) Non-uniformity in policy throughout states.
- 5) Limited inter and intra-state coordination.
- 6) It is not as relevant in the case of Decentralised Distributed Generation (DDG) systems whose production and consumption is off the grid.

Way ahead:

- 1) A comprehensive policy framework must be put in place.
- 2) Awareness must be generated for the concept.
- 3) Better incentives must be given for its adoption.
- 4) Technical obstacles must be resolved



10. Explain the challenges associated with predicting the monsoon accurately. Can shifting to a completely dynamical model from the one used by the IMD presently help in improving the accuracy of predicting the monsoon?
- मानसून के सटीक पूर्वानुमान से संबद्ध चुनौतियों की व्याख्या कीजिए। क्या IMD द्वारा वर्तमान में प्रयोग किए जा रहे मॉडल के स्थान पर पूर्णतः गतिशील मॉडल का उपयोग मानसून के पूर्वानुमान की सटीकता को बढ़ा सकता है।

Since 65% of the agriculture sector is rainfed, monsoons have a very important role to play in India's food security, market stability, consumer and farmer welfare.

Timely and accurate monsoon prediction is important to make smart choices in cultivation and to make provisions beforehand in case any crisis is expected forthcoming to minimise the extent of damage. Hence, it is important both for the farmers and the governments.

However, accurately forecasting the weather is a tedious process given the complex nature of monsoons and the unexpected changes brought about by climate change and global warming.

Challenges associated with monsoon prediction

- i) Complexity of nature.

- 2) Scarcity of data to predict correct trends.
- 3) Lack of information on the trends beyond a few hundred kilometers from the east coast of India.
- 4) Changing climate trends and unexpected occurrences in weather.

Efficacy of the Dynamical model of IMD

- *) Indian Meteorological Department has brought into use the Dynamical model along with the Statistical model which works by simulating the weather on powerful computers and extrapolating it over particular timeframe. This provides with a better understanding of physics of monsoon and provides with a near perfect calculation to predict monsoon trends.

Challenges :

- 1) It cannot accurately predict all aspects of monsoon and its trends.
- 2) Simulating the evolution of a coupled ocean-atmosphere model is hard even for the most powerful computers in

the world so far.

However, with the advent of supercomputers and improved computation methods, data collection and prediction of monsoon is bound to improve.

11. The Compensatory Afforestation Fund Bill would require to work along with the Forest Rights Act in order to achieve the aims of environment protection while also ensuring rights of the tribal people. Comment.

जनजातीय लोगों के अधिकारों को सुनिश्चित करते हुए, पर्यावरण संरक्षण के लक्ष्यों को प्राप्त करने के लिए प्रतिपूरक वनीकरण कोष विधेयक को वन अधिकार अधिनियम के साथ समन्वय की आवश्यकता होगी। टिप्पणी कीजिए।

The Compensatory Afforestation Fund Act seeks to establish National Compensatory Afforestation Fund and State Compensatory Afforestation Funds respect under the Public Account of India and the Public Account of each state respectively.

These funds will be primarily spent on afforestation, green cover regeneration in order to compensate for the environmental loss due to developmental activities. At the same time efforts will be made to protect wildlife and build requisite infrastructure.

This Act seeks to find a way out of the "development vs conservation" debate.

However to make itself a success the Bill to Act must synergise and work in close coordination with the Forest Rights Act as this will:

- 1) empower local communities to carry out afforestation,
- 2) This will ensure sustainability of the effort and continued protection,

- 3) Since under the FRA the Gsam Sabha is the final authority to decide on matters related to tribal land, CAMPA's close coordination with FRA will strengthen the democratic devolution of power,
- 4) the instances of violation of rights of forest dwellers and tribals will come down,
- 5) It will be in line with the Kanchan Chopra Committee and the IIFM Committee recommendation that communities must be compensated for the loss of forests.
- 6) Further, working in close coordination with the locals (as per FRA) will bring in traditional knowledge base, promote native species of plants and also lead to social auditing of the work undertaken.

Environmental protection and the rights of tribal people rather than being ~~two~~ antagonistic are mutually correlated. Both reinforce each other and this inbuilt correlation must be

harnessed to ensure that both institutions
are strengthened.



12. It has been argued that India's strained patent protection and IP administration has failed to keep pace with growing technological advances. In this context, examine the provisions of the new Intellectual Property Rights (IPR) Policy, 2016. Also explain how the new policy can help boost innovation and entrepreneurship in the country.

यह तर्क दिया जाता है कि भारत का विकृत पेटेंट संरक्षण एवं बौद्धिक संपदा अधिकार प्रशासन वस्तुतः विकसित होती तकनीकी प्रगतियों से तालमेल बैठाने में असफल रहा है। इस संदर्भ में, नई बौद्धिक संपदा अधिकार (IPR) नीति, 2016 के प्रावधानों का परीक्षण कीजिए। साथ ही व्याख्या कीजिए कि नई नीति देश में नवोन्मेष और उद्यमिता को बढ़ावा देने में किस प्रकार सहयोग कर सकती है।

Intellectual Property rights and patent protection are two very contentious issues in today's capitalistic and globalised world which ~~has~~ also has a huge number of people living in sub optimal conditions.

Though India has a well established, TRIPS compliant legislative, administrative and judicial framework to safeguard IPRs which also allows it to meet its developmental challenges, it has continually being criticised.

Arguments against IPR Indian IPR policy -

- 1) Indian Patent Law and compulsory licensing restrict technological advances.
- 2) Indian law bars/restrict evergreening of patents.
- 3) Issues related with generic drugs.
- 4) India has continually been on U.S 'Priority Watch List' in its Special 301 report.

Confronted with challenges the New IPR Policy seeks to find a balance between promoting innovation and protecting public interest.

Objectives:

- 1) To create awareness about economic, social, cultural benefits of IPRs among all sections
- 2) To stimulate the generation of IPRs
- 3) To have strong IPR laws that balance the interests of rights owners with larger public interest
- 4) Management to modernise and strengthen service oriented IPR administration.
- 5) Get value for IPRs through commercialisation
- 6) To combat IPR infringements.

Boost innovation and entrepreneurship in the country:

- 1) Support system for MSMEs - IPR friendly loans to less empowered groups (weavers, artisans) etc
- 2) Ease of doing business
 - trademark registration
 - Digitisation of copyright records
 - fast examination and grant of IPRs

- 3) widens access to Traditional Knowledge Digital Library.
- 4) Review existing IP law, update and amend them.
- 5) Use CSK funds to support IPR development
- 6) Build human resources and institutions for IPR training and research.

This IPR policy must work in close synergy with Make In India, Skill India, Start Up India and Digital India. The slogan of the Policy being "Creative India, Innovative India" is largely a step in the right direction.

13. Though the frequency of both droughts and floods has increased in many states of the country, the preparedness level for mitigating their impacts still has significant gaps. Discuss in the context of India.

यद्यपि सूखे और बाढ़, दोनों की आवृत्ति देश के कई राज्यों में बढ़ी है किंतु उनके प्रभावों को कम करने हेतु तैयारियों के स्तर में अभी भी एक बड़ा अंतराल विद्यमान है। भारत के संदर्भ में चर्चा कीजिए।

2009, 2014, and 2015 were all drought years in India. As two-thirds of the agricultural land in India ~~and~~ is rain fed, any failure in monsoons has a direct impact on food grain prices and on the livelihood of farmers.

On the other hand floods have also been a recurrent phenomenon with those in Jammu & Kashmir, Chennai, Assam and the most recent in Manipur.

This creates a very paradoxical picture where on the one side of the country there are pictures of parched ~~lands~~ fields, distressed population, farmer suicides and kms long queues to collect water, at the same on the other there is havoc created with the overflow of water, flooding rivers, urban floods.

Nevertheless, the preparedness level for mitigating the impacts of floods and droughts is still not up to the mark.

This is for the reasons:

- 1) Focus is more on relief than on prevention.

- 2) Laxity on parts the part of some states to declare a drought
- 3) Prevalence of faulty water agricultural practices and non efficient water management in rainfall surplus areas.
- 4) With respect to flood management -
 - Unavailability of timely information on storage levels.
 - sudden release of water leading to floods in the downstream regions,
 - Limited efficacy of National Disaster Response Force.
- 5) Non-efficient and sometimes unavailable public healthcare system.
- 6) Non-serious attitude towards scientific warnings and lack of reliable data to forecast correct patterns, as happened in the Uttarakhand flood disaster.

Measures that must be taken:

- i) Collection of reliable data to predict trends and dissemination of the same to the general public at regular intervals.

- 20) Upgrade both urban and rural infrastructure so as to minimise the effects of both drought and floods.
- 30) Constitution of National Disaster Response Force, National Disaster Mitigation Fund, and National Plan on mitigation and crisis management as per the Supreme Court's guidelines.
- 4) Amend faulty agricultural practices and bring in precision farming.
- 5) Use of climate change resistant seeds.
- 6) For floods there is a need for coordinated release from reservoirs.

14. In view of the high levels of inequality in India, it is imperative to not only broaden access to education and health but also financial services. Discuss. Also highlight the efforts made by the government in recent times to address inequality by promoting financial inclusion.

भारत में असमानता के उच्च स्तरों को देखते हुए न केवल शिक्षा और स्वास्थ्य बल्कि वित्तीय सेवाओं तक पहुँच को भी विस्तृत करने की आवश्यकता है। चर्चा कीजिए। साथ ही सरकार द्वारा हाल ही में वित्तीय समावेशन को बढ़ावा देकर असमानता को कम करने के लिए किए गए प्रयासों पर भी प्रकाश डालिए।

Though rising economic growth has raised per capita income ~~also~~ in the country, it has also increased inequality. According to ~~an~~ an Oxfam report the richest 1% in India own 58% of the total wealth in the country.

This problem is even more profound when it is seen in the context of the effect such inequality has on the marginalised sections such as SCs, STs, OBCs, and disabled and women.

In this context it is imperative that not only the marginalised sections are assured of access to education and health but also that efforts are undertaken to fill the gap in economic considerations.

Education is one of the most powerful tools to empower communities and

individuals. It awakens one to one's rights and entitlement.

The government has made Right To Education a Fundamental Right and has made provisions for free and compulsory education up to the age of 14. Another special initiative are undertaken to bring gender parity in access to education through Beti Bachao Beti Padhao, Sukanya Samridhi Yojana etc

Health remains one of the most skewedly distributed aspect of social and economic life. It is noticed that out of pocket expenditure on health is one of the highest among lower classes and marginalised sections.

Taking note of the situation the government has launched Rastriya Suraksha Bima Yojana, Janani Suraksha Yojana, Indradhanush scheme etc.

Financial services: lack of brick and mortar banks in remote areas and subsequent dependence on money lenders perpetuates marginalisation of the lower sections as they are unable to invest in themselves or take steps to improve their standard of living.

Initiative taken by the government:

- 1) Jan Dhan Yojana.
- 2) Concept of business correspondent
- 3) Introduction of Payments banks, wholesale banks and cooperative banks.
- 4) Use of Post offices as instruments of promoting financial inclusion.
- 5) Stand Up India scheme.

Given the large disparities in financial access across the income distribution, it is imperative to broaden access to financial services as financial inclusion is an important factor in promoting equality, social and economic justice.

15. Examine the need for indigenization of the defence industry in India. While highlighting its challenges, analyse how the new Defence Procurement Policy (DPP) and relaxations in FDI norms can address these challenges.

भारत में रक्षा उद्योगों के स्वदेशीकरण की आवश्यकता का परीक्षण कीजिए। इसकी चुनौतियों पर प्रकाश डालते हुए विश्लेषण कीजिए कि नई रक्षा खरीद नीति (डिफेंस प्रोक्योरमेंट पॉलिसी-DPP) एवं FDI मानदंडों में दी गयी छूटें इन चुनौतियों को किस प्रकार संबोधित कर सकती हैं।

India remains the world's largest importer of defence equipment, with 60% of its requirements met from outside the country.

Need for indigenization:

- 1) Outflow of precious foreign exchange must come down.
- 2) Supplier pressure with respect to denial of spares for political reasons, high cost of spares, delays and lack of transparency in technology transfer etc.
- 3) Allegations of corruption in defence deals eg - Auguste Westland.
- 4) Undue delays, eg Rafale Fighter Deal is still to be carried out.
- 5) We have been showing our prowess in other fields example space technology, we must replicate the efforts in the defence sector as well.
- 6) Indigenisation will be in line with our vision

of Make in India.

- 7) Should show that even a 20-25% reduction in imports could directly create an additional 100,000 to 120,000 highly skilled jobs in India — much needed given our huge demographic dividend and to combat "jobless growth".

- 8) The developments in the defence sector will trickle down to other (manufacturing and services) sector as well — promoting R & D and an innovative spirit.

However, India faces many challenges to indigenisation.

- 1) Low allocation to R & D in India.
- 2) Lack of expertise in technical knowhow
- 3) Long gestation periods in technological research and its transformation into a final product, immediate needs of the country may not be met in time.
- 4) PSUs not being as robust and largely play the roles of system integrators.
- 5) Slow decision making and complex laws.
- 6) Red tapism and bureaucratic delays.

- 7) Lack of a conducive financial framework to attract private sector in defence procurement.

To tackle these challenges the government has undertaken two major steps:

- 1) FDI relaxation: A 100% FDI in defence will ~~ensure~~ ensure inflow of cutting edge technology - It will boost local manufacturing

- 2) New Defence Procurement Policy: aimed at boosting India's target of 'Make in India', besides creation of a domestic defence industry to cater to its own needs as well as exports.

Further many offsets or policy concerns of foreign companies have been addressed in the new DPP.

To succeed the government must

- 1) support the creation of a private defence industrial base.
- 2) Fund R & D.
- 3) Provide a low interest regime to cut capital costs.
- 4) Make provision for tax benefits.

16. Digital technologies have the potential to dramatically transform higher education. Giving a special emphasis to MOOCs, analyse the statement in the context of India.

डिजिटल प्रौद्योगिकियों में उच्च शिक्षा को नाटकीय ढंग से रूपांतरित करने की क्षमता है। MOOCs पर विशेष बल देते हुए, भारत के संदर्भ में इस कथन का विश्लेषण कीजिए।

ICT has changed not only the way we interact but also the way information can be disseminated. Since Digital technologies can be appropriately leveraged to provide online learning platforms as well through digital libraries, digital labs, online classes etc.

Potential of digital technology in Higher Education

- 1.) Qualitative and Quantitative issues can be sorted through transcending limitations of public funding, higher fees.
- 2.) Problem of vacancies and need of highly skilled teachers in face of shortage can be overcome.
- 3.) Linkages between industry and institutions can be formed.
- 4.) Accessibility and equity issues and provision of higher education in remote areas can be

Potential of MOOCs for India.

- 1) Revolution in education that will make the highest quality education available regardless of their socio-economic background.
- 2) Increase in speed, scale and efficiency of teaching in the higher education system.
- 3) Crucial for Skill India and Make in India.
- 4) Online instruction and training for teachers.
- 5) Potential for job creation in education, IT and related sectors.
- 6) Access to courses offered by international universities.

However there are certain challenges that will have to be met:

- 1) Technological barriers: Infrastructure, technological penetration, high-speed internet.
- 2) Overcoming disparity in digital divide between rural and urban areas.
- 3) Educational barriers: such as providing pre-university level courses to reach the largest number of masses.
- 4) Fear of exacerbating educational inequality where the elites are provided with personalised education.

while the majority are confined to virtual education.

- 5-) Lack of a regulatory environment to regulate and upgrade the quality of education.

If hurdles restricting access to education to such methods of education are overcome, millions of Indians can have better access to quality higher education, however simultaneous efforts must also be made to make available traditional means of education by overcoming regional disparities and economic access.

17. The Civil Aviation Policy 2016 would help in building a more modern, safe, secure and sustainable aviation industry while also boosting regional connectivity and tourism. Discuss.

नागरिक उड्डयन नीति, 2016 अधिक आधुनिक, सुरक्षित, सुदृढ़ और संधारणीय विमानन उद्योग को विकसित करने में सहयोग करेगी और साथ ही क्षेत्रीय कनेक्टिविटी और पर्यटन को भी बढ़ावा देगी। चर्चा कीजिए।

India has become the third largest aviation market in terms of domestic passenger traffic, beating Japan.

The Civil Aviation Policy, 2016 wants build on this foundation and has the following objectives:

- 1.) Increase domestic passenger traffic fourfold
- 2.) Increase cargo volume four times
- 3.) Certified 3.3 lakh skilled personnel to be made available.
- 4.) Safety and security
 - part of airport security to be outsourced to private parties in order to bring in efficiency.
 - hiring of contract persons will not be allowed for security reasons.
 - Development of 'service delivery model' for ^{aviation} airport security.

Regional connectivity:

- Airlines between smaller cities.
- Fares to be capped and letter subsidy provided to the airlines to operate on such routes.
- Bring tier 2 and tier 3 cities on an equal footing in terms of air connectivity
- Promote regional development,
- Special focus of North-eastern states
- Promote tourism by upgrading connectivity.

Sustainability :

- 1) Route Dispersal guidelines to be formulated to classify air traffic routes into 3 routes
- 2) Ease of doing business:
 - single window for all aviation related issues
 - Promote trade through connectivity
- 3) Open sky policy on a reciprocal basis with SAARC countries and countries

beyond 5000 km from Delhi.

- 4) Greenfield and brownfield airports to be developed by state governments, private or PPP Mode.

The government has also launched the UDAN scheme to carry forward the agenda.

- However, institutional and structural reforms must also be brought in by
- Professionalizing the Directorate General of Civil Aviation
 - Strengthening independence of Airport Authority of India.

Addressing these concerns will herald a new era of civil aviation in India.

18. What is the significance of start-ups for Indian economy? Critically analyse the provisions of "Start-up India" program and the challenges that lie ahead in its effective implementation.

भारतीय अर्थव्यवस्था के लिए स्टार्ट-अप्स का महत्व क्या है? 'स्टार्ट-अप इंडिया' कार्यक्रम के उपबंधों एवं इसके प्रभावी कार्यान्वयन में आने वाली चुनौतियों का आलोचनात्मक विश्लेषण कीजिए।

The significance of start-ups in the Indian economy is manifold:

- 1) "Jobless growth" has led to high level of unemployment which is bound to increase in the demographic dividend that we are facing. Start ups would generate jobs and bring in the culture of "self employment"
- 2) With more start ups India can aspire to be a world leader in skilled labour and
- 3) It will stop "brain-drain" from India.
- 4) Encourage competition in the market and give vent to the culture of innovation and entrepreneurship.
- 5) Bring in positive developments in other sectors of the economy through backward and forward linkages.
- 6) Lead to formalisation of the economy.
- 7) Raise per capita income, standard of living and human development level.

8) Will bring social change by empowering individuals across all sections of the society.

Overview of "Start-up India" programme.

- 1) Self certification with regard to labour and employment laws. Will improve ease of doing business.
- 2) Start Up India Help as a single point of contact for start-up community.
- 3) Gany registration through mobile app and portal.
- 4) Legal support and fast tracking of patent applications.
- 5) Fast exit to wind up operations in case of failure in 90 days.
- 6) Tax exemptions to give them capital support.
- 7) Fund of Funds with a corpus of Rs 10,000 crore to support startups.
- 8) Provision of credit guarantee fund
- 9) Relaxed procurement norms.
- 10) Setting up of incubators and research parks.

However, these provisions do have some
drawbacks; challenges:

- 1) Corruption and difficult IPR procedure.
- 2) Income tax exemption of 3 years is inadequate given that startup start earning profits usually after 3-5 years
- 3) The amount of Rs 10,000 cr is not adequate.
- 4) Procurement can be delayed due to intransparent procedure and the institutional issues that are deeply ingrained.
- 5) Incubators and research parks must be accessible to all.

To make this policy a success the government must:

- 1) Create linkages between Skill India, Digital India, Make In India and Start Up India.
- 2) Improve infrastructure and connectivity across spectrum.
- 3) Bring in transparency and reduce corruption.
- 4) Reduce red tapism
- 5) Streamline labour laws and provide for efficient environmental clearance.

19. What do you understand by methanol economy? Discuss its environmental and economic advantages. How does methanol compare with other new generational fuels such as ethanol and hydrogen?

मेथनॉल अर्थव्यवस्था से आप क्या समझते हैं? इसके पर्यावरणीय और आर्थिक लाभों की चर्चा कीजिए। नई पीढ़ी के अन्य ईंधनों यथा इथेनॉल और हाइड्रोजन से मेथनॉल की तुलना कीजिए।

Methanol economy is where methanol and dimethyl ether replace fossil fuels as a source of energy. It offers an alternative to ~~methanol~~ or hydrogen economy,
Economic advantages:

- 1) Efficient energy storage by volume as compared to the current energy maintenance needs.
- 2) Reduced dependence on imports for energy needs and subsequent saving up of foreign exchange.
- 3) Move towards self-reliance on energy.
- 4) Exports of methanol produced in India to neighbouring countries can earn us foreign exchange.

Environmental advantages:

- 1) It is a clean fuel.
- 2) Can be easily produced from renewable sources like agricultural & biomass waste.

through gasification

- 3.) Can be effectively managed without causing harm to the environment.
- 4.) Mitigate the danger of global warming by reducing carbon emissions.

Comparison with ethanol:

- 1.) Unlike ethanol, there is no need to use food crops to generate energy.
- 2.) Reduced competition with food produced for consumption leading to food security.
- 3.) Can be blended in gasoline like ethanol.

Comparison with Hydrogen:

- 1.) It is user friendly while hydrogen is volatile
- 2.) can be blended with gasoline
- 3.) Has reduced leakage tendencies, and hence can be effectively managed

More research is required in this field
and its feasibility in India has to be
studied deeply to carry out implementation.

20. Differentiating between Augmented Reality and Virtual Reality, explain why it is argued by many that these technologies are not just about gaming but can change our lives.

आगमेंटेड रियलिटी और वर्चुअल रियलिटी (संवर्धित वास्तविकता और आभासी वास्तविकता) के बीच अन्तर स्पष्ट कीजिए। व्याख्या कीजिए कि अनेक व्यक्तियों द्वारा यह तर्क क्यों दिया जाता है कि ये प्रौद्योगिकियाँ केवल गेमिंग के लिए ही नहीं हैं बल्कि हमारे जीवन को परिवर्तित कर सकती हैं।

Augmented Reality: is a live or direct or indirect view of a physical or real world environment whose elements are augmented or supplemented by computer-generated sensory inputs such as sound, graphics, GPS data etc.

Virtual Reality: is use of computer technology to create simulated environment where users are given an experience of the 3D world.

These technologies have largely been used in the gaming world, however they have immense potential in other fields as well.

- 1) Military: In terms of training, upgrading combat situations etc.
- 2) Use in the medical field where doctors are able to better understand the kind of surgery or treatment required.

- 3) Engineering! by allowing production of virtual and augmented prototypes and giving an opportunity to test their feasibility
- 4) Education! virtual tours can be given to students even in the remotest of areas.
- 5) Urban planning and infrastructure creation through incorporated precision spatial information.

However these technologies are very expensive which make them inaccessible to the poor. More research must be done to reach cost effectiveness.

